Land East of Showell Farm, Chippenham

Technical Appendix 8.1 Ecological Baseline Report

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On behalf of:
Hallam Land

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Section 1
Introduction

1.1 This Ecological Baseline Report has been prepared by The Environmental Dimension Partnership Ltd (EDP) on behalf of Hallam Land (hereafter referred to as 'the Applicant'). It sets out the technical ecological detail that has informed both the design, and the impact assessment, of proposed development at Land East of Showell Farm, Chippenham (hereafter referred to as 'the Site').

1.2 The proposals are to be the subject of an outline planning application and a formal Environmental Impact Assessment (EIA). The application is therefore supported by an Environmental Statement (ES), Chapter 8 of which relates specifically to ecology and biodiversity and details the Ecological Impact Assessment (EcIA) of the proposed development. This report is a Technical Appendix to Chapter 8 of the ES and should be read in conjunction with it.

1.3 This report has been prepared with reference to the following key guidance:

- Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Preliminary Ecological Appraisal[1];
- CIEEM Guidelines for Ecological Impact Assessment[2];
- British Standard: Biodiversity - Code of Practice for Planning and Development[3]; and
- British Standard: Process for designing and implementing Biodiversity Net Gain[4].

1.4 EDP is an independent environmental planning consultancy with offices in Cirencester, Cardiff and Cheltenham. The practice provides advice to private and public sector clients throughout the UK in the fields of landscape, ecology, archaeology, cultural heritage, arboriculture, rights of way and masterplanning. Details of the practice can be obtained at our website (www.edp-uk.co.uk).

SITE CONTEXT

1.5 The Site is centred approximately at Ordnance Survey Grid Reference (OSGR) ST 912 708. The Local Planning Authority (LPA) is Wiltshire Council. The location and extents of the Site are illustrated on **Plan EDP 1** and described in the material supporting the planning application, particularly the introductory chapters of the ES.

[1] CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester

[2] CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3*. Chartered Institute of Ecology and Environmental Management, Winchester

[3] BSI (2013) *Biodiversity - Code of Practice for Planning and Development*. BS 42020:2013. British Standards Institute

[4] BSI (2021) *Process for designing and implementing Biodiversity Net Gain. Specification*. BS 8683:2021. British Standards Institute

1.6 The Site measures 30 hectares (ha) and is located on the southern boundary of the parish of Chippenham, with the B4528 road located along the western boundary and the River Avon forming the eastern boundary. The Site comprises of agricultural fields bounded by a network of hedgerows, some of which contain mature trees. There are also small areas of scrub, forbs and reedbeds along with lines of trees and a stream. Land uses in the surrounding landscape include agricultural, residential and industrial.

1.7 Due to the original site boundary extending to the south, the majority of surveys included this area of land. This area of land, that has been subsequently excluded from the Site, is referred to as the 'Additional Survey Area'.

DEVELOPMENT PROPOSALS

1.8 In brief, the proposed development comprises 400 dwellings (10.45ha of residential development), 0.2ha local centre, and a mixture of public open space and semi-natural greenspace.

1.9 The ecological sensitivities of the Site (described in this report) have influenced the final layout through an iterative design process. Thus, the masterplan incorporates a degree of 'inherent' mitigation to avoid or reduce the severity of potential ecological impacts.

REPORT SCOPE

1.10 This Ecological Baseline Report describes the current ecological interest within and around the Site, which has been identified through standard desk- and field-based investigations, to inform the EcIA.

1.11 The remainder of this report is structured as follows:

- **Section 2** summarises the methodology employed in determining the baseline ecological conditions within and around the Site (with further details provided within appendices and on plans where appropriate);
- **Section 3** summarises the baseline ecological conditions (with further details also provided within Appendices and on Plans where appropriate) and identifies and evaluates any Ecological Features (EFs); and
- **Section 4** summarises the EFs that are relevant to the EcIA of the proposed development.

1.12 Potential impacts on EFs resulting from the proposed development, together with proposed measures to avoid and mitigate impacts and deliver ecological enhancements and any residual significant effects (positive or negative), are described in detail in Chapter 8 of the ES.

1.13 The Biodiversity Net Gain (BNG) Assessment of the proposed development, including the output from a biodiversity metric, is provided separately in Technical Appendix 8.3 of the ES.

Section 2
Baseline Methodology

2.1 This section summarises the methodologies employed in determining the baseline ecological conditions within and around the Site. This has been undertaken by appropriately qualified ecologists using relevant best practice methodologies wherever possible. Reasons for any departure from best practice methodology are given and normally relate to the timing of EDP's commission and/or the availability of access to parts of the Site or wider study area. Full details of the techniques and process adopted are, where appropriate, provided within appendices and on plans to the rear of this report.

DESK STUDY

2.2 The desk study is an important element of the initial baseline data gathering, which entails the initial collation and review of contextual information, such as designated sites, together with known records of important habitats or species.

2.3 The desk study was undertaken during January 2026 and involved collating biodiversity information from the following sources:

- Wiltshire & Swindon Biological Records Centre (WSBRC) received 19 January 2026;
- Multi-Agency Geographic Information for the Countryside (MAGIC) website[5]; and
- National Biodiversity Network (NBN) Atlas website[6].

2.4 The desk study involved obtaining the following information:

- International statutory designations (10km radius around Site);
- National statutory designations (5km radius);
- County level statutory designation and non-statutory local sites (2km radius);
- Bat species records and Annex II bat species[7] records (4km radius);
- All other protected species, Priority Species and other notable species records[8] (2km radius);

[5] www.magic.gov.uk
[6] www.nbnatlas.org
[7] Bat species listed in Annex II of the EC Habitats Directive, namely greater horseshoe, lesser horseshoe, barbastelle and Bechstein's bats.
[8] Certain species are listed as Priority Species (also termed Species of Principal Importance), the conservation of which public authorities in England must have due regard to as part of policy or decision making under Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006. Other species of conservation note are also included here, where they are listed under other conservation lists (e.g., red data books).

- The published Local Nature Recovery Strategy (LNRS) where currently available; and
- All other Irreplaceable Habitat or Priority Habitat[9] records (500m radius).

2.5 These search areas are considered sufficient to cover the potential zones of influence[10] of the proposed development in relation to designated sites, habitats and species.

HABITAT SURVEY

2.6 The main habitats within the Site, together with their dominant/characteristic plant species, were identified by undertaking a baseline habitat survey in May 2025. This survey was undertaken following the guidance for habitat surveys as set out in The Statutory Biodiversity Metric User Guide[11], for which the habitat definitions primarily rely on descriptions set out in the UK Habitat Classification[12] and habitat conditions as set out for the Statutory Biodiversity Metric[13].

2.7 This method allows for an assessment of the main habitat types present on-site, including those listed as Priority Habitats or Irreplaceable Habitats. This survey was extended so that any evidence (actual or potential) for protected or notable species present on-site was recorded. Any evidence of Schedule 9 invasive non-native species[14] was also recorded. Plant species lists and their abundance for each habitat type were recorded but only where pertinent to identify the habitat type or condition. It was not the aim of the survey to collate a comprehensive botanical or species inventory of the Site.

2.8 Full details of the habitat survey methodology are provided within **Appendix EDP 1**.

Limitations

2.9 Although a full discussion of limitations is provided in **Appendix EDP 1** there were no significant limitations with this survey type.

DETAILED (PHASE 2) SURVEYS

2.10 The scope of the detailed surveys undertaken within the Site was defined following the initial studies described above.

2.11 The surveys 'scoped in' based upon the findings of the habitat survey are summarised in turn below, with reference to sources of further detailed information where applicable.

9 Certain habitats are listed as Priority Habitats (also termed Habitats of Principal Importance), the conservation of which public authorities in England must have due regard to as part of policy or decision making under Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006. Irreplaceable habitats are those listed under The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024.

10 Zone of Influence - the areas and resources that may be affected by the proposed development.

11 DEFRA (February 2024) Statutory Biodiversity Metric User Guide

12 UKHab Ltd (July 2023) UK Habitat Classification Version 2.0 [https://www.ukhab.org]

13 DEFRA (February 2024) Statutory Biodiversity Metric Technical Annex 1: Condition Assessments

14 Those listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

River Condition Assessment Survey

2.12 Given the presence of a stream within the Site and a river within 10m of the Site boundary, a detailed river condition assessment of these watercourses was undertaken on 10 June 2025 and 25 July 2025 to provide a robust assessment of their habitat type and condition.

2.13 Full details of the river condition assessment are provided within **Appendix EDP 2**.

Limitations

2.14 Although a full discussion of limitations is provided in **Appendix EDP 2** there were no significant limitations with this assessment.

Breeding Bird Survey

2.15 The Site contains several habitats which are suitable for nesting birds, including hedgerows, reedbeds, scrub, a small woodland, and open fields. A full breeding bird survey was therefore undertaken with reference to standard methodology, entailing a modified Common Bird Census (CBC)[15] approach. This involved the completion of three visits to the Site and Additional Survey Area, undertaken monthly between April and July 2025 to coincide with the height of the breeding bird season for lowland Britain.

2.16 Full details of the breeding bird survey methodology are provided in **Appendix EDP 3**.

Limitations

2.17 Although a full discussion of limitations is provided in **Appendix EDP 3** there were no significant limitations with this survey type.

Wintering Bird Survey

2.18 The Site contains several habitats which are suitable for wintering birds including hedgerows, scrub, a small woodland, and open fields. The River Avon runs along the eastern boundary of the Site and additionally, large areas of arable farmland are present within the Site. British farmland is an essential habitat for many resident bird species and also for many migrants (Gillings *et al*., 2008)[16]. A wintering farmland bird survey was therefore undertaken to identify whether any notable species populations occur during the winter months.

2.19 The survey involved the completion of three visits to the Site, undertaken monthly between December 2024 and February 2025.

2.20 Full details of the winter bird survey methodology are provided in **Appendix EDP 4**.

Limitations

2.21 Although a full discussion of limitations is provided in **Appendix EDP 4** there were no significant limitations with this survey type.

[15] Marchant, J. (1983). *Common Bird Census Method*. BTO

[16] Gillings, S., Wilson, A.M., Conway, G.J., Vickery, J.A. & Fuller, R.J. (2008). Distribution and abundance of birds and their habitats within the lowland farmland of Britain in winter. *Bird Study*, 55:1, 8-22.

Bat Surveys

2.22 During the habitat survey, 11 trees and one building present within, or immediately adjacent to, the Site were identified as having potential to support roosting bats. In addition, a number of habitats present within the Site, including woodland, hedgerows and scattered trees, were identified as being of moderate suitability to support foraging and commuting bats. The following surveys for bats were therefore undertaken, with reference to best practice guidelines[17].

Tree Roost Surveys:

- Ground Level Tree Assessment (GLTA), undertaken on 12 November 2024, of all trees on Site to look for features that bats could use for roosting in order to determine the available roosting resource and the need for further survey.

Buildings/Built Structures/Underground Site Surveys:

- Preliminary Roost Assessments (PRA) of the single building to search for evidence of bats and determine the suitability of features to support roosting, undertaken on 13 May 2025.

Bat Activity Surveys:

- Nighttime Bat Walkover (NBW) surveys completed each season in Autumn (October 2024), spring (April 2025), and summer (June 2025); and

- Automated bat detector surveys conducted monthly in September and October 2024, and between April and August 2025, in accordance with the guidelines for a site with moderate suitability.

2.23 Full details of the bat survey methodologies are provided in **Appendix EDP 5**.

Limitations

2.24 Although a full discussion of limitations is provided in **Appendix EDP 5** there was a failure of an automated detector at a single location during the May, July and September survey periods. There was also a detector failure at two locations in August, however, one detector was redeployed at one of these locations later in August. This meant that there were at least three detectors covering the Site in each month, and between them they covered all different habitat types. It is therefore not considered a significant constraint as the guidance on deployment of statics has still been followed.

2.25 There was light rain for a very short period of time during one NBW survey, however, conditions during the rest of that survey and for the other two surveys were generally suitable and bats were still recorded during the period of rain.

2.26 During the GLTA survey, one tree was noted as being difficult to survey within the crown due to the presence of leaves, however visibility into the crown for the majority of other trees was good.

[17] Collins, J. (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London

This tree is currently proposed to be retained, and has been identified as Further Assessment Required, if in future it is to be impacted or removed.

Dormouse Survey

2.27 Owing to the suitability of the hedgerows within the Site for dormouse (*Muscardinus avellanarius*), a nest tube survey to determine the presence/likely absence of the species was undertaken in accordance with best practice guidelines[18] at the time of survey.

2.28 A total of 110 standard nest tubes, each comprising a wooden tray and nesting tube made from plastic tree guard material, were deployed throughout the Site and Additional Survey Area within suitable and accessible habitat at approximately 20m intervals on 11 March 2025 (see **Plan EDP 13**). Nest tubes were erected at approximately 1.5m to 2m above-ground and tied to suitable branches located within the hedgerows or lower branches of trees. Tubes were left in situ and checked for evidence of use by dormouse during suitable weather conditions on six separate occasions between April and September.

2.29 With reference to the best practice guidelines, a total survey effort score can be derived by adding together the index of probability in detecting dormouse presence within nest tubes for each of the months during which the nest tubes were deployed (assuming a minimum deployment of 50 nest tubes). These guidelines recommend that a score of at least 20 is achieved to provide a robust assessment of presence/absence. As illustrated in **Table EDP 2.1** the total survey effort score is 21, which achieves this minimum.

Table EDP 2.1: Dormouse Survey Effort

Month	Index of Probability	Visit Details	Weather Conditions During Survey
April	1	Tubes checked 28.04.2025	Temperature 16°C, 30% cloud cover, no wind and dry.
May	4	Tubes checked 27.05.2025	Temperature 15°C, 100% cloud cover, a gentle breeze and light rain showers.
June	2	Tubes checked 10.06.2025	Temperature 16°C, 15% cloud cover, no wind or rain.
July	2	Tubes checked 25.07.2025	Temperature 25°C, 5% cloud cover, a gentle breeze and dry.
August	5	Tubes checked 26.08.2025	Temperature 19-25°C, 20-50% cloud cover, light air and dry.

[18] Bright, P.W, Morris, P.A. and Mitchell-Jones, T. (2006). *The Dormouse Conservation Handbook Second Edition*. English Nature, Peterborough.

Month	Index of Probability	Visit Details	Weather Conditions During Survey
September	7	Tubes checked 25.09.2025	Temperature 14°C, 0% cloud cover, no wind and dry.
Total Survey Effort Score	**21**		

Limitations

2.30 It should be noted that new dormouse guidance was released in March 2025. As this survey was designed and started prior to this date it therefore followed the previous best practice guidance. However, the survey effort is still in line with the new guidance for 'good' quality habitat, which the hedgerows on-site are considered to be.

2.31 It was noted during the survey in May that four dormouse tubes were missing. However, there were still 106 tubes deployed across the entire site, so this is not a significant constraint to the survey.

Otter Survey

2.32 An initial assessment of the Site's suitability to support otter (*Lutra lutra*) was undertaken during the baseline habitat survey and with reference to desk study records as described above. Based on this initial habitat assessment, a detailed survey for signs of otter was subsequently undertaken of the watercourses on-site and immediately off-site (River Avon adjacent to the eastern boundary of the Site) by an experienced surveyor on two occasions: 09 May 2025 and 07 July 2025.

2.33 Each survey was undertaken with reference to published methodologies on surveying otter[19]. These took place between May and September and involved a visual inspection of the entire watercourse for characteristic signs of otter, including evidence of feeding remains, prints, tracks, spraints and resting sites including lay-ups and holts. Features considered to have the potential to be used as holts were also documented during the survey.

2.34 The location of the habitats surveyed for otter is shown on **Plan EDP 16**.

Limitations

2.35 There were no major limitations with this survey. There was rain 72 hours prior to the survey on 07 July 2025, however, not heavy or consistent enough to wash away any signs of this species.

Water Vole Survey

2.36 An initial assessment of the Site's suitability to support water vole (*Arvicola amphibius*) was undertaken during the baseline habitat survey and with reference to desk study records as described above. Based on this initial habitat assessment, a detailed survey of the watercourses on-site and immediately off-site (River Avon adjacent to the eastern boundary of

[19] Chanin P (2003). *Monitoring the Otter Lutra lutra*. Conserving Natura 2000 Rivers Monitoring Series No. 10, English Nature, Peterborough.

the Site) for signs of water vole activity was subsequently undertaken by an experienced surveyor on two occasions, namely: 09 May 2025 and 07 July 2025.

2.37 Each survey was undertaken with reference to best practice guidelines[20].and involved a search for burrows, feeding stations (including feeding stations and grazed lawns), faeces (latrines and droppings), footprints, and possible runs.

2.38 The location of the habitats surveyed for water vole is shown on **Plan EDP 16**.

Limitations

2.39 There were no major limitations with this survey. There was rain 72 hours prior to the survey on 07 July 2025, however, not heavy or consistent enough to wash away any signs of this species.

Beaver Survey

2.40 An initial assessment of the Site's suitability to support beaver (*Castor fiber*) was undertaken during the baseline habitat survey and with reference to desk study records as described above. Based on this initial habitat assessment, a detailed survey of the watercourses on-site and immediately off-site (River Avon adjacent to the eastern boundary of the Site) for signs beaver was subsequently undertaken by an experienced surveyor on two occasions, namely: 09 May 2025 and 07 July 2025.

2.41 Each survey involved a search for signs including dams, burrows, lodges, day rests, gnawed or felled trees, feeding signs (chewed bark, incisor marks and pencils (white stripped sticks), swim paths, and beaver slides.

2.42 The location of the habitats surveyed for beaver is shown on **Plan EDP 16**.

Limitations

2.43 There were no major limitations with this survey. There was rain 72 hours prior to the survey on 07 July 2025, however, not heavy or consistent enough to wash away any signs of this species.

Badger Survey

2.44 Evidence of badger (*Meles meles*) was identified during the baseline habitat survey. A survey to record any evidence of badger activity within the Site, within 30m of the Site and within the Additional Survey Area was therefore undertaken on 08 May 2025.

2.45 During the survey, any signs of badger activity such as holes, faeces, latrines, trails, snuffle holes and hairs on fencing or vegetation were recorded.

2.46 Where holes of a size and shape consistent with badgers were identified, the following signs of badger activity were searched for in order to determine whether they were currently in use:

- Fresh spoil outside entrances;

[20] Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016) *The Water Vole Mitigation Handbook* (Mammal Society Mitigation Guidance Series) Mammal Society, London

- Bedding material (typically dried grass) outside entrances;
- Holes being cleared of leaf litter/other debris;
- Badger guard hairs; and
- Footprints and fresh tracks leading to/from the holes.

2.47 Each hole was then categorised into the following[21]:

- Well used (/active): These are clear of any debris or vegetation, and are obviously in regular use;
- Partially used (/partially active): These are not in regular use and have debris such as leaves or twigs in the entrance, or have moss and/or other plants growing in or around the entrance. They could be in regular use after minimal amount of clearance; or
- Disused: These have not been in use for some time, are partially or complete blocked and cannot be used without a considerable amount of clearance.

2.48 Several categories of badger setts are used to describe a sett as described below[21]:

- Main setts are defined as setts with a 'large number' entrance holes (although this can be fewer) associated with large spoil heaps and well-trodden paths. This is normally where cubs are raised and is in continuous use throughout the year;
- Annexe setts - These setts are intermediate-sized (with 'several holes') and may be used by breeding badgers. These setts are normally close to a main sett (within 150m of the main sett) and connected to it by obvious paths. They may not be in use all the time, even if the main sett is very active;
- Subsidiary setts - These are similar to annexe setts but are likely to be further away (at least 50m from the main sett) and not as well-connected to the main sett as annexe setts. They are not continuously active; and
- Outlier setts - Outlier setts are small setts with one or two entrance holes which are used sporadically by badgers as a temporary refuge. Spoil heaps are likely to be small and there may not be obvious paths connecting to other setts. Use may be sporadic. There may be several outlier setts within one badger social group's territory.

Limitations

2.49 Badger surveys can be undertaken at any time of year and are, therefore, not limited by seasonal factors. There were no access constraints nor areas of dense vegetation that limited this survey.

[21] Harris, S., Cresswell, P. and Jeffries, D. (1989). Surveying Badgers. Occasional publication of Mammal Society, Number 9. Mammal Society.

Great Crested Newt Survey

2.50 An initial assessment of the Site's suitability to support great crested newt (*Triturus cristatus*) was undertaken during the baseline habitat survey and with reference to desk study records as described above. Two waterbodies (both standing water sections of ditches) were identified within the boundaries of the Site. In addition, five waterbodies were identified adjacent and within a 500m radius of the Site, of which three are within 250m. A single area is marked as a balancing pond on Ordnance Survey maps to the north of the Site and a second is shown 235m to the east of the Site, however, neither of these features are actually present on the ground.

2.51 All waterbodies on-site, and those within 250m of the Site, were subject to the following survey types in accordance with relevant best practice guidance:

- Habitat Suitability Index (HSI) Assessment[22] on the 16 April 2025; and
- Environmental DNA (eDNA) Sampling[23] on the 16 April 2025.

2.52 Waterbodies more than 250m from the Site were not surveyed as the likelihood of great crested newts dispersing over this distance to the Site is much reduced, and surveys of the nearer waterbodies are sufficient to identify likelihood of presence on-site and assess impacts on the local population.

2.53 Full details of the great crested newt survey methodology are provided in **Appendix EDP 6**. The location of the waterbodies surveyed is shown on **Plan EDP 14**.

Limitations

2.54 Although a full discussion of limitations is provided in **Appendix EDP 6** there were no significant limitations with these surveys.

Reptile Survey

2.55 Areas of grassland, hedgerow margins, tall forbs and scrub present within the Site provide potentially suitable basking, foraging, dispersal and hibernation habitats for common and widespread reptile species. A detailed refugia-based reptile survey was therefore undertaken to confirm the presence and distribution, or likely absence, of reptiles within the Site with reference to best practice guidelines[24].

2.56 A total of 120 artificial refugia were deployed in all suitable habitats across the Site on 11 March 2025. Areas of exceptionally low or negligible suitability for reptiles (for example within the centre of the arable fields) were excluded from the survey. This equates to 5.5 refugia per hectare of suitable habitat (21.5 ha), which is achieves the recommended 5 to 10 refuges per hectare of suitable habitat as set out in the best practice guidelines for 'general survey

[22] 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

[23] As approved by Natural England. http://www.freshwaterhabitats.org.uk/wordpress/wp-content/uploads/2013/09/eDNA- water-sample-methods-FHT.pdf

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

purposes'. Survey visits were undertaken on seven subsequent occasions in suitable weather conditions and involved two techniques:

- Visual encounter surveys – entailing a walked transect across the Site to undertake a visual search for basking animals in suitable habitat or evidence of animals (e.g. sloughed skin); and

- Checking of the artificial refugia for sheltering or basking animals to establish the presence/likely absence of reptiles.

2.57 This ensured that all areas were represented in the survey, and that the survey was not biased towards those reptiles more likely to use refugia, such as slow worm (*Anguis fragilis*).

2.58 During each survey visit, the following information was recorded: species, number of animals observed, and sex where possible, location (refugia or visual encounter), date, start and finish times, and weather. A summary of the survey dates, times and weather conditions are presented in **Table EDP 2.2**. The locations of the artificial refugia are shown on **Plan EDP 15**.

Table EDP 2.2: Reptile Survey Visits

Survey Visit	Date	Start Time	End Time	Wind Speed (Beaufort Scale)		Temperature (°C)		Cloud Cover (%)		Precipitation
				Min	Max	Min	Max	Min	Max	
1	01.04.25	10:00	11:26	2	3	11	12	0	10	None
2	08.04.25	09:30	11:00	2	3	11	14	20	60	None
3	15.04.25	16:00	17:30	2	4	13	15	50	100	Rain shower for 10 minutes from 16:50. The survey was paused during this time.
4	23.04.25	08:50	10:15	2	2	10	10.5	100	100	None
5	30.04.25	09:14	11:10	1	1	17	20	0	0	None
6	08.05.25	10:05	11:00	2	3	12	13	80	90	None
7	16.05.25	09:30	11:00	3	3	12	14	100	100	None

2.59 As recognised across most publications on reptiles, the feasibility of assessing an actual population size is very challenging without comprehensive surveys with a disproportionate number of visits. Due to this, where reptiles were recorded, peak adult counts are used to reflect the estimated population size for each species.

Limitations

2.60 The optimal time of day to survey for reptiles is considered to be between 08:30 to 11:00 and 16:00 to 18:30. The survey on 30 April 2025 recorded a maximum temperature of 20°C (optimal temperature range is 9-18°C). There was rain recorded during the survey on 15 April 2025 with the survey paused during this time, however this only lasted for a short period and the survey resumed once the rain stopped. The majority of the surveys were completed in optimum weather conditions at optimum times. For the survey just outside the optimum weather conditions (slightly higher than 18°C), the majority of the mats were checked within the optimum conditions (below 18°C). It is therefore not considered a significant constraint to the surveys.

ECOLOGICAL SURVEYS SCOPED OUT

2.61 **Table EDP 2.3** summarises other survey types which, whilst occasionally required to inform a planning submission for development sites, are not deemed to be necessary/appropriate in this case.

Table EDP 2.3: Ecology Surveys Scoped Out

Survey Type	Reasons for Scoping Out
Botanical survey	The habitat survey information is sufficient to confirm habitat value, with no indication of particularly high value habitats present, therefore no further assessment is required. No rare or notable plant species were recorded during any survey.
Invertebrate surveys	The habitats recorded on-site are common and widespread in the local area and are unlikely to support a notable invertebrate assemblage or significant numbers of any notable species. The off-site river and woodlands on Site are more suitable; however, these are all being retained and protected.

Section 3
Baseline Results

3.1 This section summarises the baseline ecological conditions determined through the course of desk-based and field-based investigations described in **Section 2**. In particular, this section identifies and evaluates those ecological features/receptors that lie within the Site's potential zone of influence and which are pertinent in the context of the proposed development. Further technical details are, where appropriate, provided within appendices and on plans to the rear of this report.

3.2 Where a particular ecological feature/receptor has been confirmed to be present, or presence is inferred based on habitat suitability, its ecological importance is assessed. The level of ecological importance assigned to each ecological feature is based upon established geographical value systems and the uses the following scale: International and European (highest) > National > Regional > County > District > Local > Less than Local (lowest).

DESIGNATED SITES

3.3 Information regarding designated sites was obtained during the desk study. Statutory designations (those receiving legal and planning policy protection) and non-statutory designations (those receiving planning policy protection only) are discussed in turn below.

Statutory Designations

3.4 Statutory designations represent the most significant ecological receptors. Internationally important statutory designations include Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites (including potential SPAs, possible SACs and proposed Ramsars). These designations are protected under the European Commission Directive on the Conservation of Wild Birds, the *Conservation of Habitats and Species* 2017 (as amended) and the Ramsar Convention on Wetlands of International Importance (1971, Ramsar Sites); respectively. These designations are referred to as 'habitats sites' in the National Planning Policy Framework (NPPF, December 2024) and development which would adversely affect a habitats site (alone or in combination) cannot benefit from the NPPF presumption in favour of sustainable development.

3.5 Nationally important statutory designations include Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs). NNRs are also SSSIs, both of which are protected under the *Wildlife and Countryside Act* 1981 (as amended). The NPPF states that development which would adversely affect as SSSI should not normally be permitted.

3.6 Local level statutory designations include Local Nature Reserves (LNRs) and are generally considered to be of importance at the County level or lower. LNRs are designated under the *National Parks and Access to the Countryside Act* 1949, however, protection of LNRs is given via local planning policies and/or by-laws.

3.7 Statutory designations are also recognised as key natural assets to be protected or mitigated within the draft Wiltshire Local Plan as well as Policy 50 of the adopted Wiltshire Local Plan (January 2015).

3.8 No part of the Site is covered by any statutory designations. However, there is one internationally important designation within 10km of the Site, two nationally important designations within 5km of the Site, and one county important designation within 2km of the Site. These sites are summarised in **Table EDP 3.1** and illustrated on **Plan EDP 2**.

Table EDP 3.1: Statutory Designations within the Site's potential Zone of Influence

Designation	Approx. Distance from Site	Interest Feature(s)
Internationally Important Statutory Designated Sites (within 10km of the Site)		
Bath and Bradford-on-Avon Bats SAC	6.6km west	Includes the hibernation sites associated with 15% of the UK greater horseshoe bat (*Rhinolophus ferrumequinum*) population and is selected based on the importance of this exceptionally large overwintering population. Also, a small number of Bechstein's bat (*Myotis bechsteinii*) hibernation roosts recorded. Lesser horseshoe bats (*Rhinolophus hipposideros*) are also present but not a primary reason for selection.
Nationally Important Statutory Designated Sites (within 5km of the Site)		
Spye Park SSSI	3.5km south-east	An extensive mosaic of habitats, predominantly undisturbed Alderwoods. One of the richest sites for epiphytic lichens in Wiltshire, an important breeding woodland bird site and a diverse insect community supports by the abundance of deadwood.
Bencroft Hill Meadows SSSI	4.8km east	A species-rich unimproved pasture of exceptional botanical quality. Supports a variety of typical grassland butterflies.
Statutory Designated Sites of County Importance (within 2km of the Site)		
Mortimor's Wood LNR/LWS	0.4km north-east	A small semi-natural broadleaved woodland on a steep north-west-facing slope above a bend in the River Avon.

Non-statutory Designations

3.9 Non-statutory designations are also commonly referred to in planning policies as 'local sites', although such designations are typically considered to be of importance at a County level. In Wiltshire, such designations are termed Local Wildlife Sites (LWSs) and Protected Road Verges (PRV). Additional sites such as non-designated nature reserves (e.g. Wildlife Trust nature reserves) are considered here when not covered by other designations. The importance of LWSs is recognised in the NPPF and in the Wiltshire Local Plan. Policy 50 of the Local Plan states that "*Sustainable development will avoid direct and indirect impacts upon local sites through*

sensitive site location and layout, and by maintaining sufficient buffers and ecological connectivity with the wider environment".

3.10 No part of the Site is covered by any non-statutory designations. There are eight LWSs and one PRV located within 2km of the Site, as summarised in **Table EDP 3.2** and shown on **Plan EDP 3**.

Table EDP 3.2: Non-Statutory Designations Within 2km of the Site

Designation	Approx. Distance from Site	Interest Feature(s)
Bristol Avon River LWS	Adjacent to the Site's eastern boundary	One of the main river systems draining north-west Wiltshire.
Mortimore's Wood LWS/LNR	457m north	A small semi-natural broadleaved woodland on a steep north-west-facing slope above a bend in the River Avon.
Lackham Wood LWS	1km south-east	Ancient semi-natural broadleaved woodland with some replanting.
Notton (near Lacock) Verge. PV 3-25 PRV	1.27km south	A road verge.
Middle Lodge Wood LWS	1.28km east	A small semi-natural Oak wood in a shallow valley basin bisected by Cocklemore Brook.
Tacklemore Wood, Wheeler's Wood, Hazel Copse LWS	1.84km southeast	Ancient woodland site, semi-natural in the west, otherwise mostly planted broadleaves and some conifer.
Baydons Meadow LWS	1.95km north	A small area of neutral grassland, bordered by the River Avon along the Northern boundary.
Mynte Wood LWS	1.96km west	Mature broadleaved woodland with a long history of ornamental planting on a low limestone ridge.
Long Copse, Lacock LWS	1.97km south-east	An ancient woodland site with wet woodland on landslips.

3.11 In addition, the council has adopted the Wiltshire and Swindon Local Nature Recovery Strategy. This strategy describes and maps the local priority areas for nature recovery and enhancement.

3.12 The eastern edge of the Site falls into an area identified as being of local importance for nature recovery for *Rivers, Streams and Wetlands*, including those habitats associated with them.

3.13 The Wiltshire and Swindon LNRS has been used to assign strategic significance for post-development biodiversity enhancements. This is set out in the Indicative Biodiversity Net Gain Feasibility Report (Appendix 8.3a of the ES chapter).

HABITATS

3.14 There are several mechanisms by which habitats that lie outside of statutory and non-statutory designations are protected, or by which their importance is recognised at a national level. This includes the following:

- 'Important' hedgerows are protected from removal (out with the planning process) by the *Hedgerows Regulations* 1997;
- Certain habitats are listed as Priority Habitats (also termed Habitats of Principal Importance), the conservation of which public authorities in England must have due regard to as part of policy or decision making under Section 40 of the *Natural Environment and Rural Communities (NERC) Act* 2006. The NPPF states that plans should promote the conservation, restoration and enhancement of Priority Habitats;
- In England, principal amendments to the *Town and Country Planning Act* (1990) including a new Schedule 7A (inserted by the *Environment Act* 2021) introduce a statutory framework for biodiversity net gain. Under the statutory framework, every grant of planning permission (unless otherwise exempt) is deemed to have been granted subject to the general biodiversity gain condition which requires a Biodiversity Gain Plan to be submitted and approved prior to the commencement of development. The Biodiversity Gain Plan must demonstrate a minimum 10% biodiversity net gain measured against the baseline value of the on-site habitats;
- Paragraph 193 of the NPPF includes a presumption against development which results in significant harm to biodiversity (including habitats), or results in the loss of Irreplaceable Habitats[25]. This paragraph also encourages development to integrate biodiversity improvements as part of their design especially where this can secure measurable net gains for biodiversity; and
- The importance of protecting habitats, and networks of habitats, is reflected in the Wiltshire Local Plan.

Off-site Notable Habitats

3.15 There are several Priority Habitats within 500m of the Site, as follows:

- There is a large area of wood-pasture and parkland, located 426m away from the Site;
- There is one pocket of traditional orchard located 282m away from the Site;
- There are several areas of lowland mixed deciduous woodland. The closest area of deciduous woodland is located 382m away from the Site; and
- There are several pockets of Ancient Semi-Natural Woodland in the wider landscape, however all of these are associated with the Local Wildlife Sites listed above. The nearest is Mortimor's Wood LNR/LWS located 0.4km away from the Site.

[25] As identified in The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024

On-site Habitats

3.16 The distribution of different habitat types within and adjacent to the Site is illustrated on **Plan EDP 1**. The habitats are further described in **Appendix EDP 1** alongside illustrative photographs and species lists. A summary and qualitative assessment of these habitats is provided in **Table EDP 3.3**.

Table EDP 3.3: Summary of Habitats Within the Site

Habitat Type	Distribution and Description	Intrinsic Ecological Importance*
Arable	There are three large arable fields to the south-west of the Site, namely fields **F1**, **F25** and **F3**.	Less than Local
Developed land	The B4528 runs along the western boundary of the Site, and a single barn is present within field **F7** (Building **B1**).	Less than Local
Bare ground	A patch of bare ground is present at the entrance to field **F2**.	Less than Local
Tall forbs	Dominated by nettles in the corners of fields **F3** and **F4**. With an additional strip present within the centre of the Site.	Less than Local
Modified grassland	Dominates the north and east of the site, namely fields **F4**, **F5**, **F6** and **F7** with small margins surrounding the arable fields.	Less than Local
Mixed scrub	A parcel of mixed scrub is present in the north-east boundary of field **F3**, to the east of other swamp.	Local
Bramble scrub	A patch present to the north of field **F7** surrounding the stream.	Less than Local
Lowland mixed deciduous woodland	There is a small patch of woodland central along the northern hedgerow boundary, connecting hedgerows **H10** and **H11**.	Local (Priority Habitat)
Reedbeds	A patch of reedbed is bounded by hedgerow within the north-east corner of field **F6**.	Local (Priority Habitat)
Other Swamp	There are two parcels across fields **F3** and **F6**, other swamp is present to the south and east of the reedbeds.	Local
Line of trees	A line of trees runs along the River Avon defining the eastern boundary.	Less than Local
Non-native and Ornamental Hedgerow	A section of ornamental hedgerow runs along boundary residential curtilage to the north-west of the Site.	Less than Local

Habitat Type	Distribution and Description	Intrinsic Ecological Importance*
Native hedgerow	Hedgerows **H12** and **H13** present along the northern boundary of field **F5**.	Less than Local (Priority Habitat)
Native hedgerow – Associated with bank or ditch	Southern section of defunct hedgerow **H6** between fields **F2** and **F3**.	Less than Local (Priority Habitat)
Native hedgerow with trees – Associated with bank or ditch	Northern sections of defunct hedgerow **H6** between fields **F2** and **F3**.	Less than Local (Priority Habitat)
Species rich native hedgerow	Newly planted hedgerows **H1** and **H2** creating the south and east boundary between fields **F6** and **F7**.	Local (Priority Habitat)
Species rich native hedgerow – Associated with bank or ditch	Hedgerow **H14**, **H15** and **H17** forming the north-west and south-west boundaries of field **F2**.	Local (Priority Habitat)
Species rich native hedgerow with trees	Hedgerows **H3**, **H10** and **H11** are central along the northern boundary. Hedgerow **H16** runs along the southern boundary of field **F1** and hedgerow **H8** delineates the south-east boundary of field **F3**.	Local (Priority Habitat)
Species rich native hedgerow with trees – Associated with bank or ditch	Hedgerow **H5** defines the north-east boundary of field **F2**. Hedgerow **H4** runs along the north-west boundary of **F3** and hedgerow **H7** defines the southern boundary.	Local (Priority Habitat)
Other Rivers and Streams	The River Avon flows southward along the eastern boundary of the Site.	County (immediately Off-site)
	A small tributary (stream) of the River Avon flows across the Site between fields **F4** and **F5** and north of fields **F3**, **F6** and **F7**.	Local
Individual rural trees	Mature trees present across the Site.	Less than Local
Veteran trees	Three trees: **T10** (along hedgerow **H14**), **T15** (in field **F6**) and **T33** (in field **F5**).	District (**Irreplaceable Habitat**)

*Importance irrespective of any protected, priority or other notable species which may be present

3.17 As noted within **Table EDP 3.3**, the majority of the Site is made up of habitats which are of Less than Local intrinsic importance.

3.18 However, the mixed scrub, woodland, other swamp, reedbed, hedgerows, and the stream are judged to be of Local level importance. The woodland, reedbed and hedgerows are Priority Habitats.

3.19 The River Avon that runs along the eastern boundary is of County Importance.

3.20 There are three veteran trees present on-site, namely trees **T10**, **T15** and **T33**, these are all Irreplaceable Habitats. No further Irreplaceable Habitats are present within or immediately adjacent to the Site.

3.21 Furthermore, a number of the habitats, including those which are of limited intrinsic importance, also require consideration in relation to their importance in maintaining populations of protected, Priority or other notable species. This is discussed further below.

PROTECTED, PRIORITY OR OTHER NOTABLE SPECIES

3.22 Certain species receive legal protection in the UK and are commonly known as 'protected species'. In reality, the level of protection for different species varies considerably, from protection solely against 'killing and injury' to full protection of the species and their places of refuge. Where pertinent, details of legal protection afforded to species/ species-groups are provided below.

3.23 In addition to protected species there are other species/species-groups that do not receive legal protection, but which are notable owing to their conservation status. This includes Priority Species[8]. The NPPF recognises species as an important component of biodiversity, paragraph 187d of which encourages the incorporation of features which support priority or threatened species. Similarly, the Wiltshire Local Plan, promotes species protection and enhancement.

3.24 The likelihood of presence, or confirmed presence, of protected, priority or other notable[26] wildlife species within the Site is summarised below with reference to desk study records, habitat suitability and detailed surveys where relevant. Further details are made available within the appendices and plans where referenced.

Breeding Birds

3.25 All wild birds, their nests and eggs are protected under the *Wildlife and Countryside Act* 1981 (as amended) (WCA). This makes it an offence to:

- Intentionally kill, injure or take any wild bird;
- Take, damage or destroy the nest of any wild bird while it is in use or being built;
- Take, damage or destroy the egg of any wild bird; or
- To have in one's possession or control any wild bird (dead or alive) or egg, or any part of a wild bird or egg.

3.26 In addition, further protection is afforded to those wild bird species listed on Schedule 1 of the WCA, prohibiting any intentional or reckless disturbance to these species while it is nest building, or at a nest containing eggs or young, or to recklessly disturb the dependent young of such a bird. A number of species are also included as Priority Species.

[26] Notable species are those which are not legally protected but are formally identified as being of conservation concern.

3.27 A large number of records of bird species were retrieved during the desk study, including 461 records of WCA Schedule 1 species, 201 records of Priority Species, and a further 2390 records of species included on the latest Red and Amber lists of Birds of Conservation Concern[27]. The vast majority of records received relate to species that would not normally breed in habitats found within the Site. Records of the species with possible suitable breeding habitats on-site include declining farmland species such as skylark (*Alauda arvensis*), yellowhammer (*Emberiza citrinella*), linnet (*Carduelis cannabina*) and yellow wagtail (*Emberiza citrinella*).

3.28 The full results of the breeding bird survey are provided in **Appendix EDP 3**, and on **Plan EDP 5**. In summary, a total of 20 bird species were recorded as breeding or probably breeding on-site. This includes two Priority Species and six other species of conservation concern. No WCA Schedule 1 species were recorded as breeding or probably breeding.

3.29 Barn owls have not been found to be nesting on-site but have previously been found to be roosting on-site in 2021 in tree **T10** and pellets were found in **T33**. In 2025, relatively fresh barn owl pellets were found in barn **B1** during a winter bird survey in January 2025. The distribution of these roosting features within the Site is shown on **Plan EDP 6**.

3.30 Species of note include, greenfinch (*Chloris chloris*), and reed bunting (*Emberiza schoeniclus*), as they are both declining species and their breeding on Site is considered to be of Local level.

3.31 Overall, the diversity of the species recorded is moderate but with a low abundance for a Site of this size and type. The breeding bird assemblage on-site is therefore judged to be of Local level importance.

Wintering Birds

3.32 Wintering birds do not receive direct legal protection; however, they may form part of a protected assemblage originating from a statutory designation in the vicinity or significant numbers of Priority Species or other notable species may be present.

3.33 The full results of the wintering bird survey are provided in **Appendix EDP 4** and on **Plan EDP 7**. In summary, a total of 43 bird species were recorded on-site. This includes five WCA Schedule 1 species, seven Priority Species, and nine other species of conservation concern. Those species of note include dunnock, fieldfare, house sparrow, redwing, skylark, and starling.

3.34 Overall, it is concluded that that the diversity and abundance of over-wintering birds within the Site reflects the diversity of habitats present but is not exceptional. Birds were observed using the fields as well as the hedgerows, scrub, and woodland. The wintering bird assemblage present within the Site is therefore judged to be of Less than Local level importance.

Bats

3.35 All species of British bat are listed as European Protected Species (EPS) on Schedule 2 of the *Conservation of Habitats and Species Regulations* 2017 (as amended) (referred to as the

[27] Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021 (as amended September 2024). The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747.

'Habitats Regulations'). This affords strict protection to bats and their roosts, and makes it an offence to:

- Deliberately capture, injure or kill a wild animal of an EPS;
- Deliberately disturb wild animals of an EPS wherever they are occurring, in particular, any disturbance which is likely to impair their ability to survive, to breed or reproduce, to significantly affect the local distribution or abundance of the species to which they belong, or in the case of hibernating or migratory species, to hibernate or migrate; or
- Damage or destroy a breeding site or resting place of a wild animal of an EPS.

3.36 Additional protection for bats is also afforded under the WCA, making it an offence to intentionally or recklessly disturb bats whilst they are occupying a structure or place which is used for shelter or protection, or to obstruct access to this structure or place. In addition, soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared bat (*Plecotus auritus*), greater horseshoe bat (*Rhinolophus ferrumequinum*), barbastelle bat (*Barbastella barbastellus*), Bechstein's bat (*Myotis bechsteinii*), noctule (*Nyctalus noctula*), and lesser horseshoe bat (*Rhinolophus hipposideros*) are also listed as Priority Species.

3.37 The desk study returned 2,398 records for bats within the 4km search radius around the Site which relate to at least 15 different species. There are multiple records of bat roosts with 4km of the Site with the closest record of confirmed bat roosting relating to brown long-eared bat located within 1 square km of the Site (WSBRC could only provide four figure grid references for bats).

3.38 Two-hundred and seventy-one records of Annex II species were returned within 4km of the Site. This included barbastelle, Bechstein's bat, greater horseshoe bat and lesser horseshoe bat. Confirmed roosts of Bechstein's bat and lesser horseshoe bat are located with 1 square km of the Site, recorded in 2022 and 2003 respectively (WSBRC could only provide four figure grid references for bats).

3.39 Thirteen nearby records relating to European Protected Species Mitigation Licences (EPSML) issued for bats were returned from the data search on MAGIC. The closest of which relates to common pipistrelle, soprano pipistrelle and brown long-eared bat licences located around 917m south-east of the Site close to Lackham Collage of Agriculture.

Bat Roosting

Trees

3.40 A total of 11 trees or tree groups were identified during the GLTA as requiring further assessment or having Potential Roosting Features (PRF) for bats. Full details are provided within **Appendix EDP 5** with tree locations shown on **Plan EDP 8**. These trees are to be retained so no further surveys were undertaken.

Buildings/Built Structures/Underground Site Surveys

3.41 The barn located on-site was identified as having Moderate suitable features for bat roosting. This building is to be retained so no further surveys were undertaken. Full details are provided within **Appendix EDP 5** with building locations shown on **Plan EDP 6**.

Bat Activity Surveys

3.42 Overall, the habitats present within the Site were assessed as having Moderate suitability for foraging and commuting bats. With the higher suitability located in the Additional Survey Area, the River Avon and along the northern boundary hedge.

3.43 The findings of the NBW and automated detector surveys are provided in detail within **Appendix EDP 5** and the approximate distribution and diversity of bat species recorded during the NBW surveys are illustrated on **Plans EDP 10**- **12**. Automated detector locations are shown on **Plan EDP 9**.

3.44 In summary, observations from the stationary period of the NBW surveys include the early presence of soprano pipistrelle in October, observed commuting along a hedgerow (**H11**) and away from an area of on-site woodland and reedbeds. Common and soprano pipistrelles were also recorded commuting around the same area in April. In June, there was the early presence of noctule foraging close to the stationary observation point. No roosts were confirmed during these surveys, however, common or soprano pipistrelle may be roosting in the Lowland Mixed Deciduous Woodland in the north of the Site. Most activity during the mobile period of the NBW related to common and soprano pipistrelle. There were also a lower number of passes for serotine, noctule and myotis sp. along with single recordings of lesser horseshoe bat and greater horseshoe bat. Activity was generally scattered across the Site, often associated with commuting and foraging near hedgerows, however, there was also notable activity nearby to the River Avon to the east of the Site.

3.45 Levels of bat activity recorded during the automated detector surveys were generally moderate to high and comprised primarily of soprano pipistrelle and common pipistrelle. Calls of myotis sp., noctule, serotine, Leisler's bat, long-eared bat sp., Nathusius' pipistrelle, barbastelle, lesser horseshoe bat and greater horseshoe bat made up a small minority of the total. Activity levels were generally highest at Location 1 positioned along the Site's boundary (a native hedgerow with trees). Activity levels generally peaked in April and in July, though July's figure only includes data from three locations rather than four due to a detector failure, while relatively lower levels were recorded in October.

3.46 Taking into account the diversity of bat species utilising the Site and the extent of their roosting, foraging and commuting activity, the overall bat species assemblage using the Site is considered to be of County importance.

Bat Species using the Site in Local or Greater Importance

<u>Greater Horseshoe</u>

3.47 Although greater horseshoe were recorded, they were only recorded in very low numbers: a single pass during the NBW in the Additional Survey Area, and mostly individual passes on any detector on any night (with a peak count of four passes on any night on any detector). They are therefore only using the Site on occasion, with likely only individuals or a couple of individuals

passing through (a definite maximum of four individuals). They are therefore only considered to be of Local level importance.

Lesser Horseshoe

3.48 Lesser horseshoe bat are an Annex II species and are considered to be rare in the UK. However, Wiltshire is the core of its distribution. Lesser horseshoe have been regularly recorded foraging around the Site in low numbers, with only five nights across the entire season recording greater than 10 passes on any one detector, all but one were less than 15. Although they are found at all locations across the Site, they are most commonly found at static Location 1 (along hedgerow **H3** and **H11**).

3.49 A single night in April, recorded a peak count of 134 passes at static Location 1. This was an anomaly compared to the other nights. From a detailed assessment of the data, it is considered that this hedgerow (**H3** and **H11**) likely forms an important connection for lesser horseshoe during the dispersal months, rather than a significant foraging resource during the summer (maternity) months.

3.50 As such, lesser horseshoe bats are considered to be of District level importance, particularly hedgerow **H3** and **H11** during dispersal months.

Barbastelle

3.51 Barbastelle is an Annex II species which is rare and uncommon in the UK, however the high degree of suitable habitats within Wiltshire may indicate that the county supports notable populations. Given the inconsistent and low activity levels recorded across the Site, the context of the wider landscape, barbastelle are considered to be of Local level importance.

Serotine

3.52 Serotine are mainly distributed across the south of the UK, and the species has been found widespread across Wiltshire but is not considered abundant. Based upon observations made during the NBW surveys and the location of activity recorded, it is likely that serotine are using areas of the Site to forage, for example along the river margin and woodland edge. Serotine generally roost in buildings and are hardly ever found roosting in trees. Serotine bat are therefore considered to be of Local level importance.

Dormouse

3.53 Hazel dormouse is an EPS receiving strict protection under the *Habitats Regulations* as summarised above in respect of bats. Additional protection is also afforded to this species under the WCA as summarised above in respect of bats. This species is also listed as a Priority Species.

3.54 One record for dormouse was returned within 2km of the Site's boundaries during the desk study, this was located within the Site and recorded in 2022. No nearby records relating to EPSMLs issued for dormouse were returned from the data search on MAGIC. The 2022 record was a "*possible dormouse nest*" and unconfirmed, with no other evidence of dormouse. Given the cross over between Apodemus' nests and dormouse nests, it is likely that this was a neat wood mouse nest rather than a dormouse nest.

3.55 The habitats on-site are of moderate suitability for dormice comprising of a network of predominantly species-rich native hedgerow with connectivity to the winder landscape, including off-site woodland. The dormouse nest tube survey found no evidence of dormouse.

3.56 Based on the survey results above, dormice are likely absent from the Site.

Otter

3.57 Otter is an EPS receiving strict protection under the *Habitats Regulations* as summarised above in respect of bats. Additional protection is also afforded to this species under the WCA as summarised above in respect of bats. This species is also listed as a Priority Species.

3.58 The desk study returned 163 records of otter within 2km of the Site, with multiple records located within Site boundary which were generally associated with the River Avon.

3.59 The habitats on-site are suitable for otter comprising of a stream connected to an off-site river.

3.60 A potential otter holt is located along the off-site river, within the Adjacent Survey Area, on the opposite bank to the Site. This potential holt was an opening of the right size, location and specification to be an otter holt. However, no evidence of otter (or any other mammal) was observed around the entrance. Until proven otherwise it should be assumed that this entrance is an active otter holt.

3.61 The detailed survey of the water courses also identified:

- Otter feeding signs at two locations within the off-site river;
- Fresh otter spraint at two locations within the off-site river;
- Old otter spraint located at several locations within the off-site river; and
- Old otter spraint located within the on-site stream.

3.62 As only a single old spraint was recorded on-site, with the majority of the signs located along the off-site River Avon, the population of otter is judged to be of Local importance.

3.63 However, the off-site Avon with a potential holt and multiple field signs is of high importance (County level) for this species.

Water Vole

3.64 Water vole and their burrows receive protection under Schedule 5 of the WCA. This makes it an offence to:

- Intentionally kill, injure or take (capture) a water vole;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place that a water vole uses for shelter or protection; and

- Intentionally or recklessly disturb water voles while they are in a place of shelter or protection.

3.65 Water vole is also listed as a Priority Species.

3.66 Ten records of water vole were returned within 2km of the Site's boundaries, the closest record being 1.23km north from the Site recorded in 2014 and associated with the River Avon, a watercourse connected to the Site.

3.67 The habitats on-site are suitable for water vole comprising of a stream connected to an off-site river. The detailed survey of the watercourses on-site and in the adjacent River Avon, found no definitive evidence of water vole.

3.68 Based on the survey results above, water vole are likely absent from the Site.

Beaver

3.69 During the otter and water vole surveys undertaken on 09 May 2025 and 07 July 2025, evidence of Eurasian beaver (*Castor fiber*) was identified. This comprised of two beaver feeding signs and one beaver foraging sign, all located within a limited area of the off-site river (River Avon). This population is likely expanding from nearby release sites. Due to the rarity of beaver populations within Wiltshire (assumed to be between 50 and 100 beavers in the county), the off-site population is assumed to be County on a precautionary basis.

Badger

3.70 Badgers and their sets are protected under *the Protection of Badgers Act* 1992, which makes it an offence (*inter-alia*) to:

- Wilfully kill, injure, take, or cruelly ill-treat a badger; and
- Damage or interfere with a sett, by doing one of the following things:
    - Damage a badger sett or any part of it;
    - Destroy a badger sett;
    - Obstruct access to, or any entrance of, a badger sett;
    - Cause a dog to enter a badger sett; or
    - Disturb a badger when it is occupying a sett.

3.71 The 1992 Act defines a badger sett as "*any structure or place which displays signs indicating current use by a badger*".

3.72 The protection afforded to badgers is primarily due to animal welfare issues and history of persecution rather than concerns over their unfavourable nature conservation status.

3.73 The desk study returned 84 records of badger within 2km of the Site with the closest record located around 118m west of the Site recorded in 2013. The most recent record is from 2024 and located around 1.92km east of the Site. There are also multiple records of badger setts within 1 square km of the Site. The mosaic of grassland, hedgerow and scrub within the Site offers significant opportunities for badger foraging and sett building.

3.74 The badger survey identified two active outlier badger setts, located in relatively proximity, along a hedgerow (**H15**). These were both single entrances, with no clear paths, no bedding or large spoil heaps associated with them, and were both therefore categorised as outlier setts. In addition, a badger latrine was recorded close to one of setts described above.

3.75 In addition, an off-site sett is present in a woodland to the north of the Site. Due to restricted access in this area, it was not possible to investigate further and therefore this sett could not be classified.

3.76 The location of the badger setts is shown on **Plan EDP 17**.

3.77 Badger clearly use the fields, especially the hedgerow network for foraging around the Site. With two outlier setts present. Taking into account the common status of badger within the country and district and the extent within the Site, the overall population is considered to be of Less than Local level importance.

Other Mammal Species

3.78 Records of the following Priority mammal species were returned within 2km of the Site:

- Polecat (*Mustela putorius*) – three records between 2002 and 2025;
- European hedgehog (*Erinaceus europaeus*)[28] – 493 records between 1976 and 2025;
- Harvest mouse (*Micromys minutus*) –two records, from 1972 and 1973; and
- Brown hare (*Lepus europaeus*) – 18 records between 1976 and 2022.

3.79 The Site encompasses a range of suitable foraging and breeding habitats for these species and there is a reasonable likelihood that these species are present on-site. However, the Site is not optimal habitats for these species, and those habitats that are suitable are limited in extent, so although they may be present, the populations potentially occurring on the Site are only considered to be of Less than Local level importance.

Great Crested Newt

3.80 Great crested newt is an EPS receiving strict protection under the *Habitats Regulations* as summarised above in respect of bats. Additional protection is also afforded to this species under the WCA as summarised above in respect of bats. This species is also listed as a Priority Species.

[28] Hedgehogs are also protected from capture or killing by specific methods under Schedule 6 of the WCA.

3.81 The desk study returned 34 records of great crested newt within 2km of the Site. Three nearby records relating to EPSMLs issued for great crested newt were returned from the data search on MAGIC. In addition, MAGIC held seven nearby records of great crested newt from licence returns.

3.82 The full results of the great crested newt surveys are detailed in **Appendix EDP 6** and summarised in **Table EDP 3.4**. The locations of the surveyed waterbodies are illustrated on **Plan EDP 14**.

Table EDP 3.4: Great crested newt Survey Results

Waterbody Ref. No.	Distance to Site	HSI Result	eDNA Result
P1	On-site	Pond dry	
P2	~148m south	Below average	**Negative**
P3	~247m south	Good	**Negative**
P4	On-site	Poor	**Negative**
P5	~267m south	Good	**Negative**

3.83 Based on the survey results of both on-site and off-site ponds, great crested newts are assumed to be likely absent from the Site.

Other Amphibian Species

3.84 Other legally protected amphibians are rare and have a very restricted distribution[29], however, common toad (*Bufo bufo*) is a widespread species which is listed as a Priority Species.

3.85 Records for other common amphibians within 2km included common toad (15 records). The modified grassland, field margins, hedgerows and areas of scrub on-site could provide terrestrial opportunities for this species, whilst the on-site and off-site waterbodies could provide breeding opportunities. The populations of common toad potentially occurring on the Site are only considered to be of Less than Local level importance.

Reptiles

3.86 All species of common reptile, namely common lizard (*Zootoca vivipara*), slow-worm, grass snake (*Natrix helvetica*) and adder (*Vipera berus*), receive at least limited protection from harm under the WCA, making it an offence to cause intentional killing and injuring of these species. In addition, these species are also listed as Priority Species.

3.87 Seventy-six reptile records were returned within 2km of the Site, relating to grass snake, adder, slow-worm and common lizard, and including records from within habitats connected to the Site.

3.88 The detailed reptile survey only recorded a single adult slow worm within the Site. The survey findings are summarised in **Table EDP 3.5** and illustrated on **Plan EDP 15**.

[29] Natterjack toad (*Epidalea calamita*) and Northern pool frog (*Pelophylax lessonae*) are EPS, protected under WCA and Priority Species.

Table EDP 3.5: Reptile Survey Results

Survey Date	Common Lizard		Slow worm		Grass Snake	
	Adult	Juvenile	Adult	Juvenile	Adult	Juvenile
01.04.2025	0	0	0	0	0	0
08.04.2025	0	0	0	0	0	0
15.04.2025	0	0	0	0	0	0
23.04.2025	0	0	0	0	0	0
30.04.2025	0	0	0	0	0	0
08.05.2025	0	0	1	0	0	0
16.05.2025	0	0	0	0	0	0
Peak Adult Count	**0**		**1**		**0**	

3.89 In terms of habitats the Site contains woodland, hedgerows, field margins, scrub and forbs, which are of moderate suitability to support reptiles, and which are therefore likely to be used for foraging and dispersal or refuge and hibernation.

3.90 Given their limited density within the Site and relative widespread distribution across the County, the populations of slow worm within the Site are judged to be of Less than Local level importance.

3.91 In 2021, a single juvenile grass snake was recorded using the Site (see **Plan EDP 15**). An adult grass snake has a territory range of approximately 9ha, with juveniles often dispersing many kilometres from their hatching sites. As with slow worm the population (if present on-site) is judged to be of Less than Local level importance.

Invertebrates

3.92 The desk study returned 206 records of invertebrates within 2km of the Site, relating to at least 53 species. This includes three species of bee, nine species of true fly, 39 species of butterfly and one species of dragonfly (common darter). Given the intensive agricultural management and limited botanical diversity, the Site is not considered to support large assemblages of notable invertebrate species, nor significant numbers of notable species, and it is likely that the majority of species present would comprise of common and widespread species.

3.93 The off-site River Avon and the reedbed, and woodland areas are likely to have more suitability for these species- however these habitats are all being retained and protected.

3.94 Based on the above, the invertebrate assemblage present within the Site is assumed to be of Site level importance.

Section 4
Summary of Ecological Features

4.1 The ecological features/receptors pertinent to the development proposals, based on the survey findings described above, are set out in **Table EDP 4.1**.

Table EDP 4.1: Ecological Features Identified within the Site's Zones of Influence

Feature	Summary Description and Relationship with Site	Level of Importance
Statutory Designations		
Bath and Bradford-on-Avon Bats SAC	A hibernation site for a large number of greater horseshoe bat (15% of UK population) and a smaller number of Beckstein's bat. The bat surveys have confirmed that the Site is not functionally linked to this SAC.	International Off-site
Spye Park SSSI	An extensive mosaic of habitats, an important breeding bird site with a diverse insect community.	National Off-site
Bencroft Hill Meadows SSSI	A species-rich unimproved pasture of exceptional botanical quality, supporting a variety of butterflies.	National Off-Site
Mortimor's Wood LNR/LWS	A small, semi-natural broadleaved woodland.	County Off-site
Non-statutory Designations		
Bristol Avon River LWS	A river system draining north-west Wiltshire.	County Off-site
Mortimore's Wood LWS	A small semi-natural broadleaved woodland on a steep north-west-facing slope above a bend in the River Avon. Forms part of the Mortimor's Wood LNR identified above.	County Off-site
Lackham Wood LWS	Ancient, semi-natural broadleaved woodland.	County Off-site
Notton (near Lacock) Verge. PV 3-25 PRV	A road verge.	County Off-site
Middle Lodge Wood LWS	A small, semi-natural oak wood bisected by a brook.	County Off-site
Tacklemore Wood, Wheeler's Wood Hazel Copse LWS	Ancient woodland, planted broadleaves and conifer.	County Off-site
Baydons Meadow LWS	A small area of neutral grassland bordered by the River Avon.	County Off-site
Mynte Wood LWS	Mature broadleaved woodland with ornamental planting.	County Off-site
Long Copse, Lacock LWS	Ancient woodland site.	County Off-site

Feature	Summary Description and Relationship with Site	Level of Importance
Off-Site Habitats		
Wood-pasture and parkland	large area of wood-pasture and parkland, located 426m away	District Off-site
Traditional orchard	One pocket of traditional orchard located 282m	District Off-site
Lowland mixed deciduous woodland	There are several areas of lowland mixed deciduous woodland. The closest area of deciduous woodland is located 382m.	District Off-site
Ancient Semi-Natural Woodland	There are several pockets of Ancient Semi-Natural Woodland in the wider landscape, however all of these are associated with the Local Wildlife Sites listed above. The nearest is Mortimor's Wood LNR/LWS located 0.4km away from the Site.	County Irreplaceable Habitat Off-site
Habitats		
Arable	There are three large arable fields to the south-west of the Site, namely fields **F1**, **F25** and **F3**.	Less than Local
Developed land	The B4528 runs along the western boundary of the Site, and a single barn is present within field **F7** (building **B1**)	Less than Local
Bare ground	A patch of bare ground is present at the entrance to field **F2**.	Less than Local
Tall forbs	Dominated by nettles in the corners of fields **F3** and **F4**. With an additional strip present within the centre of the Site.	Less than Local
Modified grassland	Dominates the north and east of the Site, namely fields **F4**, **F5**, **F6** and **F7** with small margins surrounding the arable fields.	Less than Local
Mixed scrub	A parcel of mixed scrub is present in the north-east boundary of field **F3**, to the east of other swamp.	Local
Bramble scrub	A patch present to the north of field **F7** surrounding the stream.	Less than Local
Lowland mixed deciduous woodland	There is a small patch of woodland central along the northern hedgerow boundary, connecting hedgerows **H10** and **H11**.	Local (Priority Habitat)
Reedbeds	A patch of reedbed is bounded by hedgerow within the north-east corner of field **F6**.	Local (Priority Habitat)
Other Swamp	There are two parcels across fields **F3** and **F6**, other swamp is present to the south and east of the reedbeds.	Local
Line of trees	A line of trees runs along the River Avon defining the eastern boundary.	Less than Local
Non-native and Ornamental Hedgerow	A section of ornamental hedgerow runs along boundary residential curtilage to the north-west of the Site.	Less than Local

Feature	Summary Description and Relationship with Site	Level of Importance
Native hedgerow	Hedgerows **H12** and **H13** present along the northern boundary of field **F5**.	Less than Local (Priority Habitat)
Native hedgerow – Associated with bank or ditch	Southern section of defunct hedgerow **H6** between fields **F2** and **F3**.	Less than Local (Priority Habitat)
Native hedgerow with trees – Associated with bank or ditch	Northern sections of defunct hedgerow **H6** between fields **F2** and **F3**.	Less than Local (Priority Habitat)
Species rich native hedgerow	Newly planted hedgerows **H1** and **H2** creating the south and east boundary between fields **F6** and **F7**.	Local (Priority Habitat)
Species rich native hedgerow – Associated with bank or ditch	Hedgerow **H14**, **H15** and **H17** forming the north-west and south-west boundaries of field **F2**.	Local (Priority Habitat)
Species rich native hedgerow with trees	Hedgerows **H3**, **H10** and **H11** are central along the northern boundary. Hedgerow **H16** runs along the southern boundary of field **F1** and hedgerow **H8** delineates the southeast boundary of field **F3**.	Local (Priority Habitat)
Species rich native hedgerow with trees – Associated with bank or ditch	Hedgerow **H5** defines the north-east boundary of field **F2**. Hedgerow **H4** runs along the north-west boundary of **F3** and hedgerow **H7** defines the southern boundary.	Local (Priority Habitat)
Other Rivers and Streams	The River Avon lies outside of the eastern boundary, its tributary flows across the Site between fields **F4** and **F5** and north of fields **F3**, **F6** and **F7**.	County Off-site (on Site boundary)
	The River Avon lies outside of the eastern boundary, its tributary flows across the Site between fields **F4** and **F5** and north of fields **F3**, **F6** and **F7**.	Local
Individual rural trees	Mature trees present across the Site.	Less than Local
Veteran trees	Trees **T10** (along hedgerow **H14**), **T15** (in field **F6**) and **T33** (in field **F5**).	District **(Irreplaceable Habitat)**
Species		
Breeding Birds	The diversity of the species recorded was moderate but with a low abundance for a Site of this size and type. Most notably the presence of greenfinch and reed bunting. Barn owls recorded roosting but not breeding within the Site.	Local
Wintering Birds	Low diversity and abundance of any species of notable wintering bird.	Less than Local

Feature	Summary Description and Relationship with Site	Level of Importance
Bats	Eleven trees and a single building with bat roosting potential. Moderate to high levels of foraging and commuting activity along the Site boundaries by relatively common and widespread species. However, rarer species (including Annex II species) were recorded but generally in inconsistent and low numbers.	County
Greater horseshoe bat	Due to the rarity of this species, the presence of this species (even in the very low numbers recorded) is considered to be of Local level importance.	Local
Lesser horseshoe bat	A large peak count of lesser horseshoe on a single night during April, indicates that hedgerows **H3** and **H1** are an important connection and foraging route during the dispersal months.	District
Barbastelle	Due to the rarity of this species, the presence of this species (even in the very low numbers recorded) is considered to be of Local level importance.	Local
Serotine	Serotine are not considered an abundant bat within the UK or Wiltshire. Given the numbers recorded on and adjacent to the Site, it is likely the population is of Local importance.	Local
Dormouse	The habitats on-site are of moderate suitability for dormice, but no dormouse or evidence of dormouse were recorded during the surveys. There are limited historic records of dormouse within the local area.	Likely- absent
Otter	The habitats on-site are of moderate suitability for otter. Signs of otter spraint, feeding and a holt were recorded during the surveys.	Local (off-site River Avon is County)
Water Vole	The habitats on-site are of moderate suitability for water vole, however, the surveys recorded no evidence of water vole.	Likely- absent
Beaver	A few feeding and foraging signs found in the off-site River Avon. This population is likely expanding.	Likely -absent on-site (off-site River Avon is County)
Badger	Two outlier setts were identified on-site. Badger have a common status within the country and district.	Less than Local
Other mammals	Historic records for polecat, harvest mouse, European hedgehog and brown hare in the local area. None of these species have been recorded on-site.	Less than Local
Other amphibians	Potential to be present in terrestrial phase, restricted to suitable habitat on-site.	Less than Local

Feature	Summary Description and Relationship with Site	Level of Importance
Reptiles	Habitats of moderate suitability but only a limited density within the Site (one adult slow worm recorded in 2025 and one juvenile grass snake recorded in 2021) and relative widespread distribution across the County.	Less than Local

Appendix EDP 1
Baseline Habitat Survey

METHODOLOGY

A1.1 The main habitats within the Site, together with their dominant/characteristic plant species, were identified by undertaking a habitat survey in May 2025. This survey was undertaken following the guidance for habitat surveys as set out in The Statutory Biodiversity Metric User Guide (DEFRA, November 2023), for which the habitat definitions primarily rely on descriptions set out in the UK Habitat Classification[30] and habitat conditions as set out for the Statutory Biodiversity Metric[31].

A1.2 This method allows for an assessment of the main habitat types present on Site, including those listed as Priority Habitats or Irreplaceable Habitats. Plant species lists and their abundance for each habitat type were recorded but only where pertinent to identify the habitat type or condition. It was not the aim of the survey to collate a comprehensive botanical or species inventory of the Site.

A1.3 To determine if a hedgerow is species-rich, the middle 30m of all hedgerows up to 100m in length were surveyed, whilst the central 30m of each half of hedgerows up to 200m in length were surveyed. For hedgerows exceeding 200m in length, the central 30m section from each third of the hedgerow was surveyed. This technique is not formally set out within the Statutory Biodiversity Metric User Guide or the UK Habitat Classification User Manual but is taken from the *Hedgerow Regulations* 1997 for determining species-richness.

A1.4 A watercourse survey (including rivers and streams) was undertaken as part of this assessment. However, to ascertain the condition of rivers and streams a separate River Condition Assessment survey was undertaken as detailed in **Appendix EDP 2**.

A1.5 The habitat survey was undertaken by a suitably experienced surveyors on 08 to 09 May 2025, during which the weather was suitable: warm, dry and sunny.

Limitations

A1.6 The survey was undertaken during the appropriate time of year in suitable weather conditions and no access issues, therefore there were no limitations to the survey.

RESULTS

A1.7 The principal habitats within the Site together with their dominant/characteristic plant species identified during the surveys are discussed in turn below. The type, distribution and species composition of the habitats present is discussed below.

[30] UKHab Ltd (July 2023) UK Habitat Classification Version 2.0 [https://www.ukhab.org]
[31] DEFRA (February 2024) Statutory Biodiversity Metric Technical Annex 1: Condition Assessments

A1.8 The following should be read in conjunction with **Plan EDP 1** and illustrative photographs provided where appropriate.

Modified Grassland

A1.9 The majority of fields to the north and east of the Site comprise species-poor grassland, namely fields **F4**, **F5**, **F6** and **F7**. The sward dominated by common grass species. Perennial rye-grass (*Lolium perenne*) and cock's-foot (*Dactylis glomerata*) are co-dominant, whilst Yorkshire fog (*Holcus lanatus*) and meadow foxtail (*Alopecurus pratensis*) are abundant with soft brome (*Bromus hordeaceus*) and red fescue (*Bromus hordeaceus*) occurring frequently. Herbaceous species are present but not frequent and include dandelion (*Taraxacum officinalis*) and creeping buttercup (*Ranunculus repens*). These species were at a density of an average of 5 species per m^2. As broadleaved hers band sedges formed less than 20% cover of the sward, the average diversity was less than 8 species per m^2, and rye grass cover was greater than 30%, these areas fall under the definition of Modified Grassland.



Image EDP A1.1: Modified grassland within field **F6**.

A1.10 Given the species-poor composition of the grassland sward across these areas, and the common nature of this habitat within the local area modified grassland is judged to be of Less than Local level importance. This habitat is not a Priority Habitat nor an Irreplaceable Habitat.

Marshy Grassland

A1.11 Marshy grassland is present in small patches of the Site, such as field corners and depressions where drainage is impeded (**TN1** and **F6a**). These areas support a slightly more diverse vegetation community of damp-loving and other plants including hard rush (*Juncus inflexus*), jointed rush (*Juncus articulatus*), brooklime (*Veronica beccabunga*) and great willowherb (*Epilobium hirsutum*). There is also a small parcel of marshy grassland central along hedgerow **H3** with a remnant looped ditch fed by the adjacent stream.

A1.12 This grassland type is identified under UK Habitat Classification as Modified grassland due to being species poor (less than nine species on average per m^2) with any neutral grassland indicator species, where present, recorded only very rarely throughout the sward.



Image EDP A1.2: Marshy grassland at **TN1** dominated by hard rush.

A1.13 Given the species-poor composition of the grassland sward across these areas, and the common nature of this habitat within the local area modified grassland is judged to be of Less than Local level importance. This habitat is not a Priority Habitat nor an Irreplaceable Habitat.

Arable

A1.14 There are three large arable fields to the southwest of the Site, namely fields **F1**, **F25** and **F3** which are managed with cereal crops. No rare arable plants were present within these areas.



Image EDP A1.3: Arable field **F2**.

A1.15 Arable land is judged to be of Less than Local level importance. This habitat is not a Priority Habitat nor an Irreplaceable Habitat.

Developed Land

A1.16 The B4528 runs along the western boundary of the Site, and a single barn is present within field **F7** (building **B1**).



Image EDP A1.4: Building **B1** in field **F7**.

A1.17 Developed land is judged to be of Less than Local level importance. This habitat is not a Priority Habitat nor an Irreplaceable Habitat.

Bare Ground

A1.18 A patch of bare ground is present at the entrance to field **F2**.



Image EDP A1.5: Bare ground in gateway of field **F2**.

A1.19 Bare ground is judged to be of Less than Local level importance. This habitat is not a Priority Habitat nor an Irreplaceable Habitat.

Tall Forbs

A1.20 Tall forbs are present within field **F7** surrounding building **B1**. Species include cow parsley (*Anthriscus sylvestris*), common nettle (*Urtica dioica*), cleavers (*Galium aparine*), greater burdock (*Arctium lappa*), Yorkshire fog and cocks foot.



Image EDP A1.6: Ruderals around building **B1** in field **F7**.

A1.21 Areas dominated by common nettles were present in the corners of fields **F3** and **F4**. With an additional strip present within the centre of the Site.



Image EDP A1.7: Tall Forbs dominated by nettles in field **F3.**

A1.22 Tall forbs are judged to be of Less than Local level importance. This habitat is not a Priority Habitat nor an Irreplaceable Habitat.

Mixed Scrub

A1.23 A parcel of mixed scrub is present in the north-east boundary of field **F3**, to the east of other swamp. Species include hawthorn (*Crataegus monogyna*), bramble (*Rubus fruticosus*) and nettles.



Image EDP A1.8: Mixed scrub to the north-east of field **F3**.

A1.24 Mixed scrub is judged to be of Local level importance. This habitat is not a Priority Habitat nor an Irreplaceable Habitat.

Bramble Scrub

A1.25 A patch of bramble scrub is present to the north of field **F7** surrounding the stream.



Image EDP A1.9: Bramble scrub north of field **F7a**.

A1.26 Bramble scrub is judged to be of Less than Local level importance. This habitat is not a Priority Habitat nor an Irreplaceable Habitat.

Lowland Mixed Deciduous Woodland

A1.27 There is a small patch of woodland central along the northern hedgerow boundary, connecting hedgerows **H10** and **H11**. Species composition includes willow (*Salix sp.*), ash (*Fraxinus excelsior*), hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*) and elder (*Sambucus nigra*); with ground flora of ivy (*Hedera helix*), dog's mercury (*Mercurialis perennis*), and Lords-and-ladies (*Arum maculatum*).



Image EDP A1.10: Woodland in northern boundary of field **F3**.

A1.28 This small patch of Lowland Mixed Deciduous Woodland is judged to be of Local level importance due to its size, and the fact it is fragmented from other woodland areas. This habitat is a Priority Habitat but is not an Irreplaceable Habitat.

Reedbeds

A1.29 A patch of reedbed is bounded by hedgerow within the north-east corner of field **F6**, dominated by common reed (*Phragmites australis*).



Image EDP A1.11: Common reed dominating the reedbed north-east of field **F6**.

A1.30 Reedbeds are judged to be of Local level importance. This habitat is Priority Habitat but not an Irreplaceable Habitat.

Other Swamp

A1.31 There are two parcels across fields **F3** and **F6**, other swamp is present to the south and east of the reedbeds, dominated by pond sedge (*Carex riparia*), hard rush (*Juncus inflexus*) is also present.



Image EDP A1.12: Pond sedge dominating the other swamp.

A1.32 There is no category for any other swamp habitats other than Reedbed within the Metric. This swamp falls into the category Other Wetland (F2f) within the UK Habitat Classification. To reflect the value (a medium distinctiveness habitat), this habitat is included in the metric as Other Neural Grassland. However it was condition assessed as a wetland habitat.

A1.33 Other swamp is judged to be of Local level importance. This habitat is not a Priority Habitat nor an Irreplaceable Habitat.

Line of Trees

A1.34 A line of trees runs along the River Avon defining the eastern boundary. Species composition includes sycamore (*Acer pseudoplatanus*), common ash (*Fraxinus excelsior*), English oak (*Quercus robur*), willow sp. (*Salix spp.*) and poplar sp. (*Populus spp.*).



Image EDP A1.13: Tree line along the River Avon.

A1.35 Lines of trees are judged to be of Less than Local level importance. This habitat is not a Priority Habitat nor an Irreplaceable Habitat.

Non-native and Ornamental Hedgerow

A1.36 A section of ornamental hedgerow runs along boundary residential curtilage to the northwest of the Site, the hedgerow is dominated by tall Leyland cypress/leylandii (*Cupressus x leylandii*).



Image EDP A1.14: Leyland cypress hedgerow around residential curtilage.

A1.37 Ornamental hedgerow is judged to be of Less than Local level importance. This habitat is not a Priority Habitat nor an Irreplaceable Habitat.

Native Hedgerow

A1.38 Hedgerows **H12** and **H13** present along the northern boundary of field **F5**; species composition includes common ash (*Fraxinus excelsior*), common hawthorn (*Crataegus monogyna*), common hazel (*Corylus avellana*) and field maple (*Acer campestre*).



Image EDP A1.15: A section of defunct hedgerow **H12**.

A1.39 Native hedgerows are judged to be of Less than Local level importance. This habitat is priority habitat but not an Irreplaceable Habitat.

Native hedgerow – Associated with Bank or Ditch

A1.40 Southern section of defunct hedgerow **H6** between fields **F2** and **F3**; species composition includes common hawthorn (*Crataegus monogyna*), common hazel (*Corylus avellana*) and field maple (*Acer campestre*).



Image EDP A1.16: Southern section of hedgerow **H6**.

A1.41 Native hedgerows - associated with bank or ditch are judged to be of Less than Local level importance. This habitat is priority habitat but not an Irreplaceable Habitat. This habitat is Priority Habitat but not an Irreplaceable Habitat.

Native Hedgerow with Trees – Associated with Bank or Ditch

A1.42 Northern sections of defunct hedgerow **H6** between fields **F2** and **F3**; species composition includes common hawthorn (*Crataegus monogyna*), common hazel (*Corylus avellana*) and field maple (*Acer campestre*).



Image EDP A1.17: Northern section of hedgerow **H6**.

A1.43 Native hedgerows with trees are judged to be of Less than Local level importance. This habitat is Priority Habitat but not an Irreplaceable Habitat. This habitat is Priority Habitat but not an Irreplaceable Habitat.

Species Rich Native Hedgerow

A1.44 Newly planted hedgerows **H1** and **H2** creating the south and east boundary between fields **F6** and **F7**; species include hazel, hawthorn, oak, holly (*Ilex aquifolium*) and elder.



Image EDP A1.18: Newly planted hedgerow (**H1**).

A1.45 Species rich native hedgerows are judged to be of Local level importance. This habitat is Priority Habitat but not an Irreplaceable Habitat.

Species Rich Native Hedgerow – Associated with Bank or Ditch

A1.46 Hedgerow **H14**, **H15** and **H17** forming the north-west and south-west boundaries of field **F2**; species composition includes hawthorn, hazel, field maple and common ash.



Image EDP A1.19: Facing east along hedgerow **H17**.

A1.47 Species-rich native hedgerows – associated with bank or ditch are judged to be of Local level importance. This habitat is Priority Habitat but not an Irreplaceable Habitat.

Species Rich Native Hedgerow with Trees

A1.48 Hedgerows **H3**, **H10** and **H11** are central along the northern boundary. Hedgerow **H16** runs along the southern boundary of field **F1** and hedgerow **H8** delineates the south-east boundary of field **F3**. Species composition includes Norway maple (*Acer platanoides*), hawthorn, field maple, hazel and wych elm (*Ulmus glabra*).



Image EDP A1.20: Facing west along hedgerow **H11**.

A1.49 Species rich native hedgerows with trees are judged to be of Local level importance. This habitat is Priority Habitat but not an Irreplaceable Habitat.

Species Rich Native Hedgerow with Trees – Associated with Bank or Ditch

A1.50 Hedgerow **H5** defines the north-east boundary of field **F2**. Hedgerow **H4** runs along the north-west boundary of **F3** and hedgerow **H7** defines the southern boundary. Species composition includes hawthorn, hazel, field maple, wych elm and ash.



Image EDP A1.21: Facing west along hedgerow **H5**.

A1.51 Species rich native hedgerow with trees – Associated with bank or ditch are judged to be of Local level importance. This habitat is Priority Habitat but not an Irreplaceable Habitat.

Other Rivers and Streams

A1.52 The River Avon lies outside of the eastern boundary, its tributary flows across the Site between fields **F4** and **F5** and north of fields **F3**, **F6** and **F7**. Reed sweet grass (*Glyceria maxima*) and brooklime (*Veronica beccabunga*) are present within the channel.

A1.53 The River Avon is a Priority Habitat and also designated as an LWS. The River Condition Assessment confirmed that it was in Fairly Poor Condition. (See also **Appendix EDP 2**).



Image EDP A1.22: Tributary of the River Avon flowing between fields **F4** and **F5**.

A1.54 The River Avon is judged to be of County level importance. This habitat is not a Priority Habitat nor an Irreplaceable Habitat.

A1.55 A small tributary runs into the Site. This stream flows across the Site between fields **F4** and **F5** and north of fields **F3**, **F6** and **F7**. This stream is judged to be of Local level importance. This habitat is not a Priority Habitat nor an Irreplaceable Habitat.

Individual Rural Trees

A1.56 Mature trees present across the Site; species include hawthorn and oak.

A1.57 Individual rural trees are judged to be of Less than Local level importance. This habitat is not a Priority Habitat nor an Irreplaceable Habitat.

Veteran Trees

A1.58 Trees **T10** (along hedgerow **H14**), **T15** (in field **F6**) and **T33** (in field **F5**) are Veteran Trees; species include ash and oak.



Image EDP A1.23: Veteran tree **T15** within field **F6**.

A1.59 Veteran trees are judged to be of District level importance. This habitat is an Irreplaceable Habitat.

Appendix EDP 2
River Condition Assessment

METHODOLOGY

A2.1 The process for undertaking a condition assessment of certain types of watercourses (streams, rivers, and canals) requires implementation of the River Condition Assessment methodology[32]. The River Avon at the eastern site boundary, and a small tributary have been subject to this assessment. The River Condition Assessment process requires both a desk-based element and a specific fieldwork survey methodology, as outlined below.

A2.2 The field-based element requires that a Modular River Physical (MoRPh) survey is undertaken, comprising five contiguous MoRPh module surveys (MoRPh5)[33]. The module length is dependent on the river width. The River Avon is approximately 10m-15m wide on average at the Site and the tributary approximately 1m wide. Therefore, 20m module lengths were utilised for the River Avon and 10m for the tributary. This results in 100m and 50m length MoRPh5 sub-reaches for the River Avon and the tributary, respectively. In total, 20% of a watercourse within the red line boundary must be surveyed using the MoRPh5 methodology, to determine the range of local conditions. Based on the length of the watercourses within the Site (1,002m of River Avon and 857m of tributary), a total of two MoRPh5 sub-reaches were therefore completed for the River Avon and four for the tributary.

A2.3 The MoRPh5 survey was undertaken on 10 June 2025 and 25 July 2025 in accordance with guidance[34], by a qualified assessor able to undertake a River Condition Assessment and utilise the Cartographer software (certificate available on request). For the River Avon, there were no notable changes to the riparian habitat or in-stream features and therefore the sub-reaches were located within representative locations, one north of the tributary and one to the south. The tributary passes through variable habitat types and therefore the locations of sub-reaches were selected to represent these; sub-reaches A and D are located immediately adjacent to a hedgerow, sub-reach B is an open stretch within grassland, and sub-reach C is adjacent to a hedgerow and wet grassland (see **Plan EDP 4**).

A2.4 The desk-based element determines the 'river type' based on wider reach scale factors such as sinuosity, gradient, confinement and braiding, as well as the average and dominant bed substrate recorded in the field.

A2.5 By combining the results of both the desk-based element and fieldwork data collected, the Cartographer software calculates the river condition that can be input into the Statutory Biodiversity Metric tool as part of the BNG calculations (see report: edp2272_r022).

A2.6 In addition to condition, the Biodiversity Metric includes an assessment of riparian zone (within 10m of stream) and watercourse (within bank or channel) encroachment. Riparian zone

[32] Gurnell, A. M., Scott, S. J., England, J., Gurnell, D., Jeffries, R., Shuker, L. and Wharton, G. (2020) Assessing river condition: A multiscale approach designed for operational application in the context of biodiversity net gain. River Research and Applications, 36, 1559-1578.

[33] Modular River Survey (online). Available at: https://modularriversurvey.org/morph-rivers/

[34] Gurnell, A. and Shuker, L. (2022) The MoRPh Survey Technical Reference Manual 2022 version.

encroachment is assessed for both banks and is any feature or intervention which reduces the quantity, quality, or ecological function of the riparian habitat, including buildings, hardstanding, management (including agriculture) and structures. Watercourse encroachment includes bank revetment and encroachment into the channel resulting in adverse effects on the natural function of the watercourse, or localised changes in habitat, species or migratory pathways.

Limitations

A2.7 Sub-reaches A and D are located immediately adjacent to a dense hedgerow which prevented access to the channel and obscured visibility in places. Channel bed results therefore had to utilise findings from nearby modules where visibility was impaired. The River Avon is a deep channel with steep banks, such that the substrate was not always visible and assumptions had to be made from areas of the channel where visibility was possible. There were no other significant limitations to the survey which was completed during low flow with good visibility of the bank sides and bank tops.

RESULTS

A2.8 Neither watercourse have any watercourse encroachment. No riparian encroachment in present on-site where the grassland is likely managed for hay, with a long sward present during summer months. Major riparian encroachment is present on the left bank of sub-reach D due to construction related activities in close proximity of the bank top.

A2.9 The ratio between the MoRPh channel width and channel depth indicates that both watercourse channels have been over-deepened. This is also considered likely from observation of the channels in the field. The guidance therefore states that the condition of the watercourse should be lowered by one class.

A2.10 The results of the River Condition Assessment baseline results are detailed in **Table EDP A2.1**.

Table EDP A2.1: River Condition Assessment Baseline Results

River Condition Indicator	Indicator Score					
	River Avon Sub-reach A	River Avon Sub-reach B	Tributary Sub-reach A	Tributary Sub-reach B	Tributary Sub-reach C	Tributary Sub-reach D
B1: Bank top vegetation structure	2	1	2	1	2	2
B2: Bank top tree feature richness	0	0	2	0	0	0
B3: Bank top water-related features	0	0	3	0	3	0
B4: Bank top NNIPS cover	0	-1	0	0	0	0
B5: Bank top managed ground cover	-2	-2	0	-2	0	0
C1: Bank face riparian vegetation structure	2	3	2	1	2	1
C2: Bank face tree feature richness	1	2	1	0	1	0
C3: Bank face natural bank profile extent	3	3	0	0	0	3
C4: Bank face natural bank profile richness	4	4	0	0	0	1
C5: Bank face natural bank material richness	1	1	1	1	1	1
C6: Bank face bare sediment extent	4	4	1	0	2	1
C7: Bank face artificial bank profile extent	0	0	0	0	0	0
C8: Bank face reinforcement extent	0	0	0	0	0	0
C9: Bank face reinforcement material severity	0	0	0	0	0	0
C10: Bank face NNIPS cover	-4	-3	0	0	0	0
D1: Channel margin aquatic vegetation extent	3	2	0	3	1	0
D2: Channel margin aquatic morphotype richness	1	1	0	2	0	0
D3: Channel margin physical feature extent	1	2	0	0	0	0
D4: Channel margin physical feature richness	2	3	0	0	0	0
D5: Channel margin artificial features	0	0	0	0	0	0
E1 Channel aquatic morphotype richness	3	3	0	1	0	0

River Condition Indicator	Indicator Score					
	River Avon Sub-reach A	**River Avon Sub-reach B**	**Tributary Sub-reach A**	**Tributary Sub-reach B**	**Tributary Sub-reach C**	**Tributary Sub-reach D**
E2 Channel bed tree features richness	3	3	2	0	1	1
E3 Channel bed hydraulic features richness	0	1	2	0	1	0
E4 Channel bed natural features extent	0	0	0	0	0	0
E5 Channel bed natural features richness	0	0	0	0	0	0
E6 Channel bed material richness	3	2	2	1	2	3
E7: Channel bed siltation	0	0	0	0	0	0
E8: Channel bed reinforcement extent	0	0	0	0	0	0
E9: Channel bed reinforcement severity	0	0	0	0	0	0
E10: Channel bed artificial features severity	0	0	0	0	0	0
E11: Channel bed NNIPS extent	0	0	0	0	0	0
E12: Channel bed filamentous algae extent	0	0	0	0	0	0
Preliminary River Condition Score	**1.28**	**1.38**	**0.95**	**0.37**	**0.84**	**0.68**
River Type	Type K			Type H		
Over-deepening	Yes			Yes		
Final Condition Score	**Fairly Poor**	**Fairly Poor**	**Fairly Poor**	**Fairly Poor**	**Fairly Poor**	**Fairly Poor**

Appendix EDP 3
Breeding Bird Survey

METHODOLOGY

A3.1 There is no industry standard guidance for breeding bird surveys in relation to developments in England. Breeding bird surveys are therefore normally undertaken with reference to standard methodology, entailing a modified Common Bird Census (CBC)[35] approach. Due to the lack of adopted guidance, a group of professional ornithologists have put together their recommended approach for how (and when) to do bird surveys – known as the Bird Survey Guidelines[36].

A3.2 The Bird Survey Guidelines recommend that six surveys are undertaken as this "*is considered sufficiently robust to identify the majority of bird species using lowland deciduous woodland in the breeding season and establish a good understanding of the numbers and distribution of species present*". Lowland deciduous woodland is one of the most complex habitats to survey, relying heavily on vocal recordings and therefore requiring more visits than simpler-to-survey habitat types. The guidelines also advocate the use of professional judgement to inform the appropriate survey effort based on habitat suitability and the potential project impacts. In addition, research suggests that four visits may represent an adequate trade-off between effort and efficacy, owing to diminishing returns in estimating species diversity and territory density beyond this number[37].

A3.3 The Site is considered to be a medium (30ha) site, with habitats that are of value for breeding birds such as hedgerows, scrub, reedbed, a small woodland, and open fields but not exceptional or complicated habitats, nor expanses of habitats such as woodland. Therefore, three visits were considered more than sufficient to understand the significance of the assemblage or importance of a population of any particular species on this Site.

A3.4 Three survey visits were spread evenly between late April and early July to cover the main bird breeding season. Visits were timed to ensure they were completed prior to 11 a.m. to cover the peak activity period. The dates and timings of the three breeding bird survey visits, and the weather conditions encountered, are summarised in **Table EDP A3.1**.

Table EDP A3.1: Breeding Bird Survey Visit Details

Visit Number	Date	Timing of Survey	Wind Speed (Beaufort Scale)	Cloud Cover (%)	Precipitation
1	23.04.2025	05:56-08:02	1-2	90-100	Dry
2	28.05.2025	05:24-08:51	0-2	70-100	Dry
3	08.07.2025	05:34-08:00	1-2	0	Dry

[35] Marchant, J. (1983). Common Bird Census Method. BTO

[36] Bird Survey & Assessment Steering Group. (2025). Bird Survey Guidelines for assessing ecological impacts https://birdsurveyguidelines.org/

[37] Borthwick, M,D., Kerslake, L., Findlay, M ,A., Briers, R. A., Tomlin, C., Riddle, N. and White, P. J.C. (2024) Surveying Birds in Open Habitats near Proposed Woodland Creation Schemes: What is the Effect of Having Fewer Visits? CIEEM Inpractice Issue 124, June 2024.

A3.5 During each visit, the Site was walked at a slow pace to enable all birds detected to be identified and located. Frequent stops were made to scan suitable habitats and to listen for singing and calling birds. All areas of suitable breeding habitat within the Site boundary and immediately adjacent areas were approached to within 50m.

A3.6 During the survey, the location and activity of each bird detected (including those seen or heard) was recorded and mapped using standard two-letter British Trust for Ornithology (BTO) species codes. The breeding status of each bird species identified at the Site was determined according to the nature and frequency of the behavioural elements recorded, as set out in **Table EDP A3.2**.

Table EDP A3.2: Field Evidence used to Determine Bird Breeding Status

Breeding Status	Examples of Behaviour Exhibited
Confirmed	• Distraction display; • Nest building; • Nest with eggs; • Nest with young; • Used nest; • Recently fledged young; and • Adult carrying faecal sac/food.
Probable	• Pair observed in suitable nesting habitat in breeding season; • Permanent territory presumed through registration of territorial behaviour (song, etc.) on at least two different occasions, a week or more apart at the same place; • Courtship and display; • Visiting a probable nest site; • Agitated behaviour or anxiety calls from adults; • Brood patch on adult examined in the hand; and • Nest building or excavating nest-hole.
Possible	• Species observed in breeding season in possible nesting habitat; • Male in song; and • Adult giving alarm call.
Non-breeder	• Feeding birds only; • Birds flying over only; and • Lack of suitable breeding habitat.

A3.7 Given the ambiguity in some cases between Probable and Possible breeders this is only referred to when pertinent to the results.

A3.8 To inform the assessment in this report, the numbers of potential territories identified, the abundance of species at the County and National level, the quality of the habitat present and the geographical range of the birds concerned have been considered, based on national and regional accounts.

A3.9 The conservation status of each species of bird was also taken into account, and the following lists were considered:

- Schedule 1 of the *Wildlife and Countryside Act* 1981 (as amended) – affords greater protection to certain breeding species that are considered appropriately at risk nationally and are listed additional legal protection accordingly;
- Priority Species;
- Birds of Conservation Concern[38] - under this approach UK bird populations are assessed, using quantitative criteria, to determine the population status of each species and then placed on one of three lists; Red, Amber or Green; and
- Local conservation status as listed in the Wiltshire Bird Report[39].

Limitations

A3.10 As with all breeding bird surveys following this technique, the process is open to some subjectivity in interpretation except where active nests are located. Therefore, recorded locations indicate the 'centre' of a territory and not necessarily the breeding location.

A3.11 Following best practice, the survey visits were timed to start around first light, to coincide with the period of peak activity for birds, most particularly passerine songbird species. They were also undertaken during suitable weather conditions, i.e. days/periods with strong winds and heavy or persistent rain were generally avoided. The results are therefore not significantly limited by seasonal or climatic factors.

A3.12 The survey was carried out in suitable weather conditions and is therefore not considered to have not been limited by seasonal or climatic factors.

A3.13 All parts of the Site were accessible.

RESULTS

A3.14 A total of 38 bird species were recorded during the surveys. Full details of each notable species recorded as likely breeding on-site, including their breeding status on-site and their conservation status, are provided in **Table EDP A3.3**. Those notable species that are not considered as breeding are provided in **Table EDP A3.4**.

A3.15 Of the 20 bird species that were recorded as breeding or likely breeding on-site, eight are species of nature conservation importance, namely being listed on Schedule 1 of the WCA, being a Priority Species and/or being species included on the latest Red and Amber lists of

[38] Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021 (as amended September 2024). The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747.

[39] Wiltshire Ornithological Society, Castle, P., Edwards, S. (eds.), (2023), Wiltshire Bird Report 2021, Number 48, Norwich: Swallowtail Print

Birds of Conservation Concern. The distribution of these species recorded within the Site is shown on **Plan EDP 5**.

A3.16 Of the eight species of nature conservation importance there are two species which are notable as they are priority species that are declining, or uncommon locally or nationally: greenfinch (*Chloris chloris*), and reed bunting (*Emberiza schoeniclus*).

A3.17 Breeding birds were largely associated with the hedgerows, trees, scrub, and woodland habitats on-site. There were no ground nesting birds recorded breeding on-site. Though skylark were recorded in April and May, they were males recorded singing in off-site fields only, with none recorded on-site across all three surveys.

A3.18 There were ten birds of conservation concern recorded as non-breeding species, due to the lack of nesting habitat, and the lack of nests or behaviour indicating nesting found.

A3.19 The diversity of the species recorded is moderate but with a low abundance for a Site of this size and type, although the surveys did record low numbers of several declining farmland species such as dunnock, and song thrush. However, the most abundant species of nature conservation importance are woodpigeon and wren, both of which are common in the county. Overall, the breeding bird assemblage is judged to be of Local ecological importance.

A3.20 Barn owls have not been found to be nesting on-site but have previously been found to be roosting on-site in 2021 in tree **T10** and pellets were found in **T33**. In 2025, relatively fresh barn owl pellets were found in barn **B1** during a winter bird survey in January. The distribution of these roosting features within the Site is shown on **Plan EDP 6**.

Table EDP A3.3: Breeding Birds of Conservation Importance (Schedule 1; Priority Species and Other Notable Species) Recorded as Likely Breeding on or Adjacent to Site 2025

Common Name	Scientific Name	UK Status	Regional Status[40]	Estimated No. Breeding Pairs on Site	Survey Observations	Significance of Site Population
Common moorhen	*Gallinula chloropus*	Amber List	Common and widespread resident, perhaps also winter visitor from Europe.	0-1	Recorded in April and May along the Site boundary and adjacent within the River Avon.	One pair of moorhen are not considered to be significant as they are a common bird locally. **Less than local level importance**.
Common whitethroat	*Curruca communis*	Amber List	Common summer visitor and passage migrant, breeds Europe, winters Africa.	1-3	Males recorded singing in April and May from central hedgerows.	One to three pairs is not considered to be significant, as they are a common summer visitor. **Less than local level importance**.
Dunnock	*Prunella modularis*	**Priority Species** Amber List	Still common and widespread resident, though decreasing Britain as a whole.	3-4	Males recorded singing in May and July, all observed along hedgerows.	Although dunnock are still common regionally, nationally they are a declining farmland species and therefore, however, four pairs is not considered to be that significant. **Less than local level importance**.

[40] Wiltshire Ornithological Society, Castle, P., Edwards, S. (eds.), (2023), Wiltshire Bird Report 2021, Number 48, Norwich: Swallowtail Print

Common Name	Scientific Name	UK Status	Regional Status[40]	Estimated No. Breeding Pairs on Site	Survey Observations	Significance of Site Population
Greenfinch	*Chloris chloris*	Red List	Moderately common resident, especially at urban edges, more widespread in winter.	1-3	Observed along hedgerows during May and July, with males only recorded singing in May. Adults recorded calling in July, suggesting adults with young.	One to three pairs are considered to be of local level importance, as they are a nationally decreasing species. **Local level importance**.
Reed bunting	*Emberiza schoeniclus*	**Priority Species** Amber List	Seriously decreasing resident in wetlands, also some passage/ winter.	0-1	A male was recorded singing in suitable nesting habitat along the on-site watercourse in April, and a pair were recorded foraging in an adjacent field in July.	Due to their regional status as seriously decreasing, even one pair is considered to be of local level importance. **Local level importance**.
Song thrush	*Turdus philomelos*	**Priority Species** Red List	Common resident, partial migrant, also winterer from north GB/Europe.	0-1	Males recorded singing from trees and woodland on all three surveys, with a peak of five males recorded in May. However these were mostly recorded off-site (in adjacent woodland patches, or in the Additional Survey Area). It is only considered that a maximum of 1 pair was present in the Site.	Although song thrush are common regionally, nationally they are a declining farmland species. However only a single pair was considered potentially breeding within the Site. **Less than Local level importance**.

Common Name	Scientific Name	UK Status	Regional Status[40]	Estimated No. Breeding Pairs on Site	Survey Observations	Significance of Site Population
Woodpigeon	*Columba palumbus*	Amber List	Widespread and common resident in arable with trees, also in towns and villages.	7-10	Males singing, pairs, and small flocks observed across all three surveys. All found within hedgerows and woodland. During the July survey an adult was observed sitting on a nest.	Large numbers were recorded across the Site and due to the regional status as widespread and common, their presence on-site is only of Site level importance. **Less than local level importance**.
Wren	*Troglodytes troglodytes*	Amber List	Abundant resident, some dispersal, or arrivals from north GB in harder weather.	16-17	Many adults observed across the Site across all three surveys, the majority in hedgerows. With a peak count of 17 males recorded singing in April and May.	Large numbers were recorded across the Site and due to the regional status as widespread and common, their presence on-site is only of Site level importance. **Less than local level importance**.

Table EDP A3.4: Birds of Conservation Importance Not Considered to be Breeding 2025

Common Name	Scientific Name	UK Status	Regional Status[40]	Survey Observations
Common kestrel	*Falco tinnunculus*	Amber List	Common but decreasing resident, also passage migrant and winter visitor.	Found to be breeding on-site in 2021 but not observed within the Site boundary during the three surveys, only heard calling from a tree adjacent to the eastern Site boundary during the May survey.
Common linnet	*Linaria cannabina*	**Priority Species** Red list	Seriously decreasing resident, also passage migrant and winter visitor.	One adult was observed calling from a hedgerow adjacent to the Site, therefore there is a possibility common linnet could use the Site for foraging. No individuals were recorded within the Site during the three surveys.

Common Name	Scientific Name	UK Status	Regional Status[40]	Survey Observations
Common starling	*Sturnus vulgaris*	**Priority Species** Red list	Seriously decreasing resident, common winter visitor from north Europe.	A flock of 12 was recorded in July only, in a tree on the northern boundary of the Site. The tree was not suitable for nesting and therefore the flock was considered to be foraging only.
Common swift	*Apus apus*	Red List	Common summer visitor, breeds Europe, winters Africa.	Recorded in May and July foraging over the Site.
Herring gull	*Larus argentatus*	**Priority Species** Red list	Scarce visitor from elsewhere in Britain/ north Europe, recent and increasing local breeder.	One herring gull was observed during the April survey in an off-site field adjacent to the Site. None recorded within the Site and no suitable nesting habitat. The Site and adjacent fields are suitable for foraging.
House sparrow	*Passer domesticus*	**Priority Species** Red list	Common resident, trends in Wiltshire uncertain but large decrease nationally since 1970s.	One individual recorded calling from a patch of scrub during the July survey, therefore likely this species is only foraging on-site.
Lesser black-backed gull	*Larus fuscus*	Amber List	Increasing passage/ winter from GB/ Iceland/ north Europe, increasing and local breeder.	One lesser black-backed gull was observed flying over the Site in April. None recorded within the Site and no suitable nesting habitat, but the Site is suitable for foraging.
Rook	*Corvus frugilegus*	Amber List	Common resident, colonies in trees often by villages, roads, or rivers.	One individual recorded during the April survey. No rookeries were recorded but the Site is suitable for foraging.

Common Name	Scientific Name	UK Status	Regional Status[40]	Survey Observations
Skylark	*Alauda arvensis*	**Priority Species** Red list	Still locally common resident/passage/ winter, but serious decline in GB.	Males were recorded singing in off-site fields adjacent to the Site in April and May only. No individuals were recorded on-site across all three surveys.
Stock dove	*Columba oenas*	Amber List	Common and increasing resident of parkland, downland wood edges, farmland with trees and barns, locally towns.	One individual recorded during the April survey. The Site is suitable for foraging.

A3.21 The species within **Table EDP A3.5** are those not included on any list of conservation concern (Schedule 1, Priority Species or birds of conservation concern) but were recorded during the breeding bird survey.

Table EDP A3.5: Breeding Bird Survey Results, Non-notable Species 2025

Common Name	Scientific Name
Barn swallow	*Hirundo rustica*
Blackbird	*Turdus merula*
Blackcap	*Sylvia atricapilla*
Blue tit	*Cyanistes caeruleus*
Buzzard	*Buteo buteo*
Canada goose	*Branta canadensis*
Carrion crow	*Corvus corone*
Chaffinch	*Fringilla coelebs*
Goldfinch	Carduelis carduelis
Great tit	Parus major
Green woodpecker	Picus viridis
Grey heron	*Ardea cinerea*
Jackdaw	*Corvus monedula*
Jay	*Garrulus glandarius*
Little Egret	*Egretta garzetta*
Magpie	*Pica pica*
Pheasant	*Phasianus colchicus*
Raven	*Corvus corax*
Robin	*Erithacus rubecula*

Appendix EDP 4
Winter Bird Survey

METHODOLOGY

A4.1 There is no industry standard guidance for wintering bird surveys in relation to developments in England. Due to the lack of adopted guidance a group of professional ornithologists have put together their recommended approach for how (and when) to do bird surveys[41]. This unofficial guidance has been considered during the survey design of the breeding bird survey as detailed below.

A4.2 The Site is considered to be a medium (35ha) site, with habitats that are of value for wintering birds, such as hedgerows, scrub, a small woodland, and open fields but not exceptional or complicated habitats. Therefore, three visits were considered more than sufficient to understand the significance of the assemblage or importance of a population of any particular species on this Site.

A4.3 The species targeted were those of nature conservation importance (i.e. WCA Schedule 1, Priority Species and Red and Amber listed species of conservation concern), including the species whose main habitat is farmland, but also those species that use farmland in large numbers in winter but for which it is not necessarily their main habitat.

A4.4 Surveys were conducted by experienced surveyors and involved the completion of three visits to the Site, undertaken monthly between December 2024 and February 2025. The surveys were conducted over one pre-defined transect route designed to take surveyors to within 75m of the suitable habitats for the target species. However, there was some variation to these, at the discretion of the surveyor, according to the nature of the habitat present and the influence this had on bird detectability (e.g., height of crop/grassland). Surveyors used binoculars and telescopes. Each surveyor recorded any target species encountered, along with any notable behaviour.

A4.5 Each survey visit was carried out by one experienced surveyor to allow full coverage of the Site in a single day. It is considered that this level of repetition provides an adequate estimate for the total count of the core winter population. It is also considered that such repetition is important as some fields will potentially change habitat type during the survey period, for example when tilled and sown fields develop a covering of germinated winter cereal. This potentially could have an impact on the suitability of such a field to support specific over-wintering bird species.

A4.6 The dates and timings of the survey visits, each of which took one day to complete, and the weather conditions encountered, are summarised in **Table EDP A4.1**.

[41] Bird Survey & Assessment Steering Group. (2025). Bird Survey Guidelines for assessing ecological impacts https://birdsurveyguidelines.org/

Table EDP A4.1: Winter Bird Survey Visit Details

Visit Number	Date	Timing of Survey	Wind Speed (Beaufort Scale)	Cloud Cover (%)	Precipitation /Visibility
1	13.12.2024	08:15-12:55	0	100	Light rain, good visibility
2	08.01.2025	08:00-10:40	1	100	Dry
3	14.02.2025	08:50-12:55	2-3	90-100	Dry

A4.7 The first and last hours of daylight were not surveyed to avoid counting when birds are moving between foraging and roosting habitats. Registrations of target bird species were recorded and assigned to the location where they were first detected (if flushed). Flying birds were only recorded if they were clearly associated with the Site (e.g. just flushed or about to land).

A4.8 Following completion of all survey visits, the peak count of each species of conservation concern was calculated for the Site.

A4.9 To inform the assessment in this report, the abundance of species on-site, the abundance of species at the County and National level, the quality of the habitat present, and the geographical range of the birds concerned have been considered, based on national and regional accounts.

A4.10 The conservation status of each species of bird was also taken into account, and the following lists were considered:

- Schedule 1 of the *Wildlife and Countryside Act* 1981 (as amended) – affords greater protection to certain breeding species that are considered appropriately at risk nationally and are listed additional legal protection accordingly;
- Priority Species;
- Birds of Conservation Concern[42] - under this approach UK bird populations are assessed, using quantitative criteria, to determine the population status of each species and then placed on one of three lists; Red, Amber or Green; and
- Local conservation status as listed in the Wiltshire Bird Report[43].

Limitations

A4.11 Survey visits were completed on calm days with good visibility, and avoiding periods of heavy rain where possible, although some days of higher wind speed and occasional light rain are expected due to the time of year. It is therefore considered that the results provide a

[42] Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021 (as amended September 2024). *The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain*. British Birds 114: 723-747.

[43] Wiltshire Ornithological Society, Castle, P., Edwards, S. (eds.), (2023), Wiltshire Bird Report 2021, Number 48, Norwich: Swallowtail Print.

representative overview of the wintering bird interest at the Site and have not been limited by seasonal or climatic factors.

A4.12 A limitation with surveying birds on arable land in winter is that birds vary in detectability. This is typically a function of the species size, species behaviour (including 'flushing' distance, flocking behaviour, crypticity), foraging ecology and field characteristics (including vegetation density and height, area of the field) [44]. As such, a simple 'field perimeter' based count can miss significant numbers of birds, particularly where the field vegetation is tall or dense. This is particularly true for certain bird species, including the Red-listed skylark, and the Amber-listed meadow pipit.

A4.13 It should be noted that for a large number of species, including thrushes, sparrows, finches and buntings in most field types, the overall majority (i.e. >90%) can be recorded using a 'perimeter count'. However, where detectability may be an issue, comparisons of bird densities or total numbers between fields will not be possible purely from using perimeter counts as the field characteristics, and hence detectability, vary between field parcels.

A4.14 The survey methodology therefore involved, where access allowed, walking to within a maximum distance of 75m of all suitable habitats for the target wintering bird species. However, with regard to the effect of vegetation density and height on the ability to record birds, the survey method relies on the judgement of an experienced surveyor to assess when a count is complete. As such, in fields with more ground cover, a greater frequency of transects across open areas (and hence reduced maximum distance) is required.

A4.15 'Double counting' could also affect results, particularly with the whole-area search approach where birds could be flushed from one field to another. With reference to Wilson *et al*. (1996)[45], although this source of error cannot be eliminated, it can be minimised by taking account of birds flushed to fields yet to be counted (namely through the detailed recording of bird movements on-site plans).

A4.16 All parts of the Site were accessible.

RESULTS

A4.17 A total of 21 bird species of nature conservation importance were recorded during the course of the winter bird survey (see **Table EDP A4.2**), with a further 22 species not of conservation importance recorded incidentally (see **Table EDP A4.3**).

A4.18 The diversity of species recorded is moderate but with a low abundance for a Site of this size and type, although the surveys did record very low numbers of several declining farmland species such as dunnock, and skylark, as well as flocks of other species of conservation

[44] Atkinson, P.W., Fuller, R.A., Gillings, S. & Vickery, J.A. (2006). Counting birds on farmland habitats in winter. *Bird Study*, 53:3, 303-309

[45] Wilson, J.D., Taylor, R. & Muirhead, L.B. (1996) Field use by farmland birds in winter: an analysis of field type preferences using re-sampling methods. Bird Study, 43, 320–332

importance including house sparrow, fieldfare, redwing, and starling. Birds were observed using the fields as well as the hedgerows, scrub, and woodland.

A4.19 Low numbers of other Priority Species or Birds of Conservation Concern were also recorded including bullfinch, greenfinch, herring gull, meadow pipit, rook, and song thrush.

A4.20 It is concluded that that the diversity and abundance of over-wintering birds within the Site reflects the diversity of habitats present but is not exceptional. The wintering bird assemblage present within the Site is judged to be of no greater than Site ecological importance.

Table EDP A4.2: Winter Bird Survey Results 2024-25, Notable Species Only

Common Name	Scientific Name	UK Status	Regional Status[46]	Distribution On-site	Abundance On-site			
					Visit 1	Visit 2	Visit 3	Peak Count
Black-headed Gull	*Chroicocephalus ridibundus*	Amber list	Common winter/passage from Iceland/ northwest Europe.	Small flocks were seen across all three surveys, with a pair seen just off-site to the east in December.	6	8	17	17
Bullfinch	*Pyrrhula pyrrhula*	**Priority** Amber list	Moderately common resident of woods and scrub, visiting gardens in winter.	A single bullfinch was recorded in January along the Site boundary in the north-east of the Site adjacent to a small off-site woodland.	0	1	0	1
Common Moorhen	*Gallinula chloropus*	Amber list	Common and widespread resident, perhaps also winter visitor from Europe.	Two individual moorhen were observed in December and January within the eastern field that is adjacent to the River Avon.	2	2	0	2
Common Starling	*Sturnus vulgaris*	**Priority** Red list	Seriously decreasing resident, common winter visitor from north Europe.	Small flocks were observed across all three surveys within the hedgerows and woodland across the Site.	3	5	2	5
Dunnock	*Prunella modularis*	**Priority** Amber list	Still common and widespread resident, though decreasing Britain as a whole	Individuals and small flocks were observed across all three surveys within the hedgerows and woodland across the Site.	3	7	2	7

[46] Wiltshire Ornithological Society, Castle, P., Edwards, S. (eds.), (2023), Wiltshire Bird Report 2021, Number 48, Norwich: Swallowtail Print

Common Name	Scientific Name	UK Status	Regional Status[46]	Distribution On-site	Abundance On-site			
					Visit 1	Visit 2	Visit 3	Peak Count
Fieldfare	*Turdus pilaris*	**Schedule 1** Red list	Common winter/ passage, breeds Fenno-Scandia, winters west/south Europe	Small flocks were observed across all three surveys within the open fields, hedgerows, and woodland across the Site. There was one large flock of 60 birds observed in January.	13	68	6	68
Greenfinch	*Chloris chloris*	Red list	Moderately common resident, especially at urban edges, more widespread in winter	One individual was observed in the February survey in a hedgerow along the southern boundary.	0	0	1	1
Grey Wagtail	*Motacilla cinerea*	Amber list	Common resident, perhaps also some passage/ winter from north Britain	One individual was observed in the February survey in the north-easterly field along the Site boundary adjacent to the River Avon.	0	0	1	1
Herring Gull	*Larus argentatus*	**Priority** Red list	Scarce visitor from elsewhere in Britain/ north Europe	Individuals and small flocks were observed across all three surveys within the grassland fields.	6	1	5	6
House Sparrow	*Passer domesticus*	**Priority** Red list	Common resident, trends in Wiltshire uncertain but large decrease nationally since 1970s	Small flocks observed within one area of scrub on the western boundary in December and January.	12	8	0	12

Common Name	Scientific Name	UK Status	Regional Status[46]	Distribution On-site	Abundance On-site			
					Visit 1	Visit 2	Visit 3	Peak Count
Lesser Black-backed Gull	*Larus fuscus*	Amber list	Increasing passage/winter from GB/Iceland/ north Europe	An individual and one pair observed in December.	3	0	0	3
Meadow Pipit	*Anthus pratensis*	Amber list	Common resident, and passage/ winter from Iceland/north Europe	A flock of 16 birds observed in January only, within one of the arable fields.	0	16	0	16
Red Kite	*Milvus milvus*	**Schedule 1** Green list	Increasing resident	Individuals observed across the Site in January and February.	0	1	3	3
Redwing	*Turdus iliacus*	**Schedule 1** Amber list	Common winter/ passage, breeds Iceland/north Europe	Small flocks were observed across all three surveys within the open fields, hedgerows, and woodland across the Site. There was one flock of 32 birds observed in December.	74	36	1	74
Rook	*Corvus frugilegus*	Amber list	Common resident, colonies in trees often by villages, roads, or rivers	A flock of 50 birds were observed in an arable field in February only.	0	0	50	50
Skylark	*Alauda arvensis*	**Priority** Red list	Still locally common resident/passage/ winter, but serious decline in GB	A single skylark was observed in an arable field in February only.	0	0	1	1

Common Name	Scientific Name	UK Status	Regional Status[46]	Distribution On-site	Abundance On-site			
					Visit 1	Visit 2	Visit 3	Peak Count
Song Thrush	*Turdus philomelos*	**Priority** Amber list	Common resident, partial migrant, also winterer from north GB/Europe	A single bird was observed in hedgerow in January and February only. The locations are in close proximity, so it is likely to be the same bird.	0	1	1	1
Woodpigeon	*Columba palumbus*	Amber list	Widespread and common resident in arable with trees, also in towns and villages	Individuals and flocks were observed across all three surveys within the grassland fields, hedgerows, and woodland.	33	26	11	33
Wren	*Troglodytes troglodytes*	Amber list	Abundant resident, some dispersal, or arrivals from north GB in harder weather	Individuals observed across all three surveys within hedgerows. One pair was observed in February.	1	3	5	5

Table EDP A4.3: Winter Bird Survey Results 2024-25, Unlisted Species

Common Name	**Scientific Name**
Blackbird	*Turdus merula*
Blue tit	*Cyanistes caeruleus*
Buzzard	*Buteo buteo*
Carrion crow	*Corvus corone*
Chaffinch	*Fringilla coelebs*
Chiffchaff	*Phylloscopus collybita*
Coot	*Fulica atra*
Cormorant	*Phalacrocorax carbo*
Goldcrest	*Regulus regulus*
Goldfinch	*Carduelis carduelis*
Great Spotted Woodpecker	*Dendrocopos major*
Great Tit	*Parus major*
Green Woodpecker	*Picus viridis*
Grey Heron	*Ardea cinerea*
Jackdaw	*Corvus monedula*
Jay	*Garrulus glandarius*
Little Egret	*Egretta garzetta*
Long-tailed Tit	*Aegithalos caudatus*
Magpie	*Pica pica*
Pied Wagtail	*Motacilla alba*
Robin	*Erithacus rubecula*
Stonechat	*Saxicola rubicola*

Appendix EDP 5
Bat Surveys

METHODOLOGY

A5.1 The scope of bat surveys undertaken at the Site was determined following completion of the baseline habitat survey and review of relevant desk study findings and with reference to good practice guidelines published by the Bat Conservation Trust[47].

Tree Roost Surveys

Ground Level Tree Assessment

A5.2 Owing to the presence of suitably mature trees within or adjacent to the Site, a Ground Level Tree Assessment (GLTA) of these trees was undertaken to record any external evidence of roosting bats or any features capable of supporting roosting bats that can be seen from the ground.

A5.3 The survey was completed on 12 November 2024 by a bat licensed ecologist and a suitably experienced ecologist in accordance with the good practice guidelines referred to above. The trees were searched as thoroughly as possible from ground level with all elevations covered where these could be accessed.

A5.4 Suitable features for roosting bats (Potential Roost Features - PRFs) recorded (where present) include features formed by disease, decay, damage and association as listed within the guidelines published by the Bat Conservation Trust and detailed within the '*Bat Roosts in Trees*' book[48]. In addition, bat, bird and dormouse boxes are also considered to provide potentially suitable roosting opportunities.

A5.5 Signs of roosting bat presence recorded (where present) include seeing a bat within a PRF, or finding bat droppings within, around or beneath a PRF. Other signs which could indicate a roost include smoothing of the entrance to a PRF, staining around or beneath a feature, audible squeaking from the roost at dusk or during warm weather, and large/regularly used roosts may produce a distinctive odour.

A5.6 The roost suitability of each tree was categorised as either:

- None – Either no PRFs in the tree or highly unlikely to be any;
- Further Assessment Required (FAR) – Tree is of a size, age or condition that is likely to have PRFs, further assessment is therefore required to establish if PRFs are present in the tree;
- PRF – Tree supports at least one PRF which is visible from the ground; and

[47] Collins, J. (ed.) (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)*. The Bat Conservation Trust, London

[48] Andrews, H (2018). *Bat Roosts in Trees. A Guide to Identification and Assessment for Tree-Care and Ecology Professionals.* Pelagic Publishing, Exeter.

- Confirmed roost – Signs of roosting bat presence were found within or around a PRF.

A5.7 For those trees categorised as having a 'PRF', an estimate was made as to whether each PRF visible from the ground was likely to suitable for individual bats (PRF-I) or multiple bats (PRF-M). It should be noted that this categorisation from ground level is an estimate only, as it is often not possible to establish the internal extent of a tree feature from ground level.

Limitations

A5.8 As with any ground level assessments of trees, certain features may not be visible or fully visible from the ground. One tree was noted as being difficult to survey for features within the crown due to the presence of leaves. However, the survey was completed in November and visibility into the crown was good at that time of year.

A5.9 Bats are mobile animals and will move between a series of different tree roost sites, frequently establishing and occupying different potential roost features, depending on seasonal requirements and resources available locally. Furthermore, existing potential roost features on trees can be transient and new features formed regularly. This survey, therefore, only provides a snapshot of the conditions present at the Site at the time of survey.

A5.10 It should be noted that this type of assessment is based on features visible from ground level and is not considered to be a definitive bat roosting survey.

A5.11 No significant constraints were identified for this survey type.

Buildings/Built Structures/Underground Site Surveys

Preliminary Roost Assessment

A5.12 Owing to the presence of potentially suitable buildings within or adjacent to the Site, a Preliminary Roost Assessment (PRA) of these buildings was undertaken to record any evidence of roosting bats or any features capable of supporting roosting bats.

A5.13 The survey was completed on 13 May 2025 by a suitably experienced ecologist in accordance with the good practice guidelines referred to above. All external features considered potentially suitable for bats were assessed using a high-powered torch and binoculars, from all aspects, where access allowed. In addition, an internal inspection of the buildings (including any roof voids and basements) was undertaken where access was possible.

A5.14 Suitable features for roosting bats recorded (where present) include the following:

- Cracks/crevices in stone/brickwork/timber;
- Missing/broken/raised roof/ridge/hanging tiles;
- Loose/lifted lead flashing/bitumen felt;
- Loft voids (particularly if relatively undisturbed, potential bat access points present, clear flight space with simple truss formation, roof lining and insulation present);
- Gaps between lintels above doors and windows;

- Gaps in soffits, barge boards or facias; and
- Cavity walls with potential bat access.

A5.15 Signs of roosting bat presence recorded (where present) include the following:

- Bat(s) roosting *in situ*;
- Bat droppings or urine splashes within or beneath a feature/access point;
- Feeding remains (e.g. insect wings and beetle wing cases);
- Oily marks, smoothly worn surfaces or staining around a feature/access point;
- Audible squeaking from the roost; and
- Large/regularly used roosts may produce a distinctive odour.

A5.16 Based upon the evidence/features identified, each building was assigned to one of the following categories:

- Known or confirmed roost – Evidence of bat use found, European Protected Species (EPS) licence may be required for modifications, and will be required for demolition, to be completed lawfully;
- High suitability – Structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat;
- Moderate suitability - Structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only);
- Low suitability - Structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of year. These roost sites do not provide enough space, shelter, protection, appropriate conditions and suitable surrounding habitat to be used on a regular basis or by larger numbers of bats;
- Negligible suitability - No obvious features to support roosting bats, although some apparently unsuitable features present; and
- None – No features on-site likely to be used by roosting bats at any time of year.

A5.17 During the PRA, an initial assessment of potential for winter roosting (hibernation) within each building was also undertaken, based on the presence of suitable features, accessibility for bats, surrounding habitat and the temperature and humidity conditions likely to be present within the building over the winter period.

Limitations

A5.18 Preliminary roost assessments of buildings can be undertaken at any time of year and these assessments were therefore not limited by seasonal or climatic factors. The building was fully accessible both internally and externally. No significant constraints were identified for this survey type.

Bat Activity Surveys

A5.19 During the baseline habitat survey in May 2025, an initial assessment was undertaken of suitability of the habitats within and immediately adjacent to the Site for foraging and commuting bats. In accordance with the good practice guidelines referred to above, the Site was assigned to one of the following categories:

- High suitability – Continuous, high-quality habitat that is well-connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, treelined watercourses and grazed parkland. Site is close to and connected to known roosts;

- Moderate suitability – Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water;

- Low suitability – Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub;

- Negligible suitability – No obvious habitat features on Site likely to be used by commuting or foraging bats; and

- None – No habitat features on Site likely to be used by any commuting or foraging bats at any time of year.

A5.20 Having determined that the overall suitability of the Site is Moderate (see paragraph in results section below), a proportionate level of survey effort was expended in terms of the number and frequency of NBW surveys and automated detector surveys. These are described in further detail below.

Nighttime Bat Walkover Surveys

A5.21 NBW surveys were undertaken across the Site and Additional Survey Area with the objective of identifying important roosting and commuting behaviour as well as foraging areas used by bats. A total of three NBW surveys were undertaken over the course of the active bat season in 2024 and 2025.

A5.22 Details of the date, timing, and weather conditions during each of the NBW surveys are given in **Table EDP A5.1**. All visits were completed in weather conditions that were suitable for such surveys.

Table EDP A5.1: Date, Timing and Weather Conditions during NBW Surveys

Survey Date	Sunset Time	Start - Finish Times	Weather Conditions at Sunset			
			Temp (°c)	Cloud Cover (%)	Wind (Beaufort Scale)	Precipitation
23.10.24	17:57	17:57 – 19:59	14	30	1	None.
15.04.25	20:05	20:05 – 22:26	14	40	1	Light rain for 10 minutes starting around 22:00.
10.06.25	21:24	21:26 – 23:50	19	5	0	None.

A5.23 During the NBW surveys, one stationary observation point was surveyed across all NBW surveys, with surveyors positioned along potential flight lines close to potential roost sources. Following the stationary part of the NBW survey, one transect route was walked within the Site, with the route designed to provide coverage of all habitats within the Site. The stationary observation points and transect routes are illustrated on **Plan EDP 9**. The NBW surveys were carried out by experienced bat surveyors and an assistant, with the stationary part of the NBW survey starting at sunset and continuing for a minimum of 30 minutes followed by a walked transect part of the survey, carried out until two-three hours after sunset. The walked part of the NBW survey was carried out at a slow and steady pace and where appropriate surveyors stopped temporarily or took detours from the route to observe bat behaviour.

A5.24 All bats calls were recorded, time-stamped and location tagged using Elekon Batlogger M bat detectors, and any observed behaviour described on survey forms, in order to characterise the value of the Site and its component habitats for foraging and commuting bats.

A5.25 Bats were identified on the basis of their characteristic echolocation calls, which analysed using computer sonogram analysis Kaleidoscope to confirm species identification. Species of Myotis bat and long-eared bat are difficult to tell apart solely from their echolocation calls and were therefore grouped as such.

Limitations

A5.26 There was light rain for 10 minutes, starting at around 22:00, during the survey on 15 April 2025. However, this was very light and bats were still recorded and seen foraging during this time.

A5.27 No significant constraints were identified for this survey type.

Automated Detector Surveys

A5.28 Bat activity within the Site and Additional Survey Area was also sampled using Anabat Swift detectors (hereafter referred to as 'automated detectors'), which are deployed in fixed locations to automatically trigger and record bat echolocation calls over multiple nights at a time. In this case, automated detectors were deployed at four locations within the Site during each survey, as shown on **Plan EDP 9**, covering all habitat types within the Site and concentrating on locations of known/anticipated higher impacts. The automated detectors were fixed in secure locations, and the microphone directed away from the tree/branch to maximise detection sensitivity. In total seven surveys were completed over the course of the active bat season during 2024 and 2025, each comprising sampling by automated detectors for at least five consecutive nights. Details of dates, sampling locations and weather conditions during each of the surveys are given in **Table EDP A5.2**.

Table EDP A5.2: Automated Detector Survey Details

Sampling Period Dates	Location		Microphone		Weather (Max, Min Temp/ Rainfall/Max, Min Wind Speed)
	Reference Number	OS Grid Reference	Height	Direction	
11.09.24 – 15.09.24	1	ST91202 71004	1.5m	S	Temperature 6 - 16°C. No rainfall. Wind speed 5 – 10mph.
	2	ST91113 70758	1.2m	NW	
	3	ST91579 70848	1.5m	E	
	4	ST91661 70664	1.5m	NW	
23.10.24 – 27.10.24	1	ST91232 70993	1.8m	S	Temperature 9 - 15°C. No rainfall. Wind speed 6 – 13mph.
	2	ST91115 70760	2.0m	W	
	3	ST91581 70852	1.5m	E	
	4	ST91693 70660	2.0m	NW	
15.04.25 – 19.04.25	1	ST91239 70985	1.8m	S	Temperature 2 - 14°C. Light rain showers through the evening on 18.04.25. Wind Speed 4 – 19mph.
	2	ST91115 70772	2.0m	W	
	3	ST91577 70849	1.7m	E	
	4	ST91689 70656	1.3m	N	
19.05.25 – 23.05.25	1	ST91193 71007	1.5m	S	Temperature 8 - 14°C. Light rain through the evening on 20.05.25

Sampling Period Dates	Location		Microphone		Weather (Max, Min Temp/ Rainfall/Max, Min Wind Speed)
	Reference Number	OS Grid Reference	Height	Direction	
	2	ST91119 70751	1.3m	SE	and 23.05.25. Wind speed 4 – 14mph.
	3	ST91583 70852	1.3m	N	
	4	ST91693 70665	1.3m	N	
10.06.25 – 14.06.25	1	ST91224 71000	1.0m	S	Temperature 10 - 17°C. No rainfall. Wind speed 3 – 14mph.
	2	ST91232 70797	0.5m	NW	
	3	ST91581 70849	1.5m	N	
	4	ST91692 70662	2.0m	NW	
15.07.25 – 19.07.25	1	ST91214 70998	1.2m	SW	Temperature 13 - 17°C. Light rain showers through the evening on 15.07.25 and 19.07.25. Wind speed 4 – 12mph.
	2	ST91119 70740	1.0m	NW	
	3	ST91578 70846	1.3m	NE	
	4	ST91692 70664	1.3m	NW	
14.08.25 – 18.08.25	1	ST91269 70993	1.5m	S	Temperature 11 - 19°C. No rainfall. Wind speed 4 – 13mph.
	2	ST91115 70752	1.5m	W	
	3	ST91561 70892	1.2m	NE	
	4	ST91691 70664	1.5m	N	
22.08.25 – 26.08.25	3 (redeployment)	ST91578 70846	1.3m	NW	Temperature 12 - 21°C. No rainfall. Wind speed 4 – 10mph.

A5.29 The sound files recorded by the automated detectors were analysed using Kaleidoscope Pro's Auto ID for Bats software, which uses clustering technology and known bat species calls to classify each call to species level. Except for common and soprano pipistrelle, for which the classifiers are more accurate, all other species files, those classified as 'No ID', and 10% of the noise files were checked manually using sonogram analysis in accordance with published guides to confirm the species identification of each bat call.

Limitations

A5.30 The identification of calls and species using Kaleidoscope software is dependent upon the quality of the recording made which can be influenced by the following factors, which may limit levels of activity and species recorded:

- Weather conditions - rainfall and wind;
- Distance of bat from the detector's microphone;
- Presence of obstructions through which the noise must pass i.e., trees/leaves; and
- Proximity of other noise sources such as roads.

A5.31 Species of Myotis bat (*Myotis* sp.), long-eared bat (*Plecotus* sp.) and in some cases *Pipistrellus* sp. are difficult to tell apart solely from their echolocation calls and were therefore grouped together as such.

A5.32 Weather data for the deployment period was taken from an online data source. Light rain was recorded overnight on the 18 April, 20 May, 23 May, 15 July and 19 July, in addition to some low temperatures during a couple of the deployments.

A5.33 One detector failed during each September, May and July survey periods. Two detectors failed during the August survey period; however, one detector was re-deployed at Location 3 later in August. This meant that there were at least three detectors covering the Site in each month, and between them they covered all different habitat types. It is therefore not considered a significant constraint as the guidance on deployment of statics has still been followed.

A5.34 No significant constraints were identified for this survey type.

RESULTS

Tree Roost Surveys

Ground Level Tree Assessment

A5.35 The GLTA identified a total of 11 trees or tree groups with suitable features for bat roosting (PRF) or Further Assessment Required but no confirmed roosts were recorded. All trees are proposed to be retained and unimpacted, therefore no further surveys are required. Further details on each of these trees are provided in **Table EDP A5.3** and their locations are shown on **Plan EDP 8**. It should be noted that an additional four trees were present in the Additional Survey Area and are also included in **Table EDP A5.3**.

A5.36 All other trees were found to be of no suitability for roosting bats and have not been mapped/described.

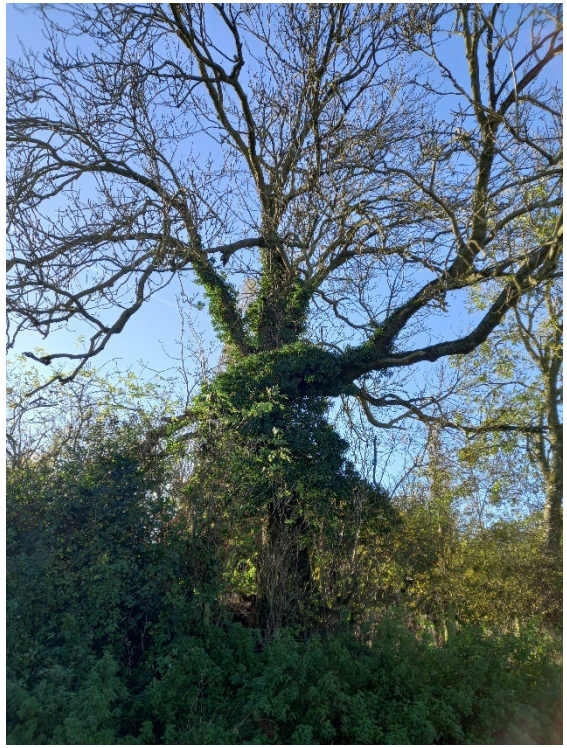
Table EDP A5.3: Details of Trees with Bat Roost Suitability Following Initial Aerial Inspection

Tree/ Group Ref. No.	Photograph	Tree Species	Potential Roost Features and their Suitability	Roosting Suitability of Tree (where Applicable)
T8		Oak	• No obvious features from ground level; • There are several knot-holes, however, no cavities appear to be present; and • FAR due to the age and size of the tree.	FAR

Tree/ Group Ref. No.	Photograph	Tree Species	Potential Roost Features and their Suitability	Roosting Suitability of Tree (where Applicable)
T9		Oak	• No obvious features from ground level, however, it was difficult to see within the canopy area; and • FAR due to the age and size of the tree.	FAR

Tree/ Group Ref. No.	Photograph	Tree Species	Potential Roost Features and their Suitability	Roosting Suitability of Tree (where Applicable)
T10		Ash	• Large cavity in the trunk on the northern aspect. **PRF-M**; and • Several woodpecker and knot-holes further up the tree. **PRF-I**.	PRF (assumed PRF-M)

Tree/ Group Ref. No.	Photograph	Tree Species	Potential Roost Features and their Suitability	Roosting Suitability of Tree (where Applicable)
T15		Oak	• Large area of lifted bark. **PRF-M**; and • Pruning cuts with large cavities on northern facing aspect. **PRF-M**.	PRF (assumed PRF-M)

Tree/ Group Ref. No.	Photograph	Tree Species	Potential Roost Features and their Suitability	Roosting Suitability of Tree (where Applicable)
T22 (within Additional Survey Area)		Ash	• Large tear-out wound on the southern aspect, close to the ground. **PRF-I**; and • Split limb with several cavities, facing eastward. **PRF-I**.	PRF (assumed PRF-I)

Tree/ Group Ref. No.	Photograph	Tree Species	Potential Roost Features and their Suitability	Roosting Suitability of Tree (where Applicable)
G26 (within Additional Survey Area)		Dead	• Two large, dead trees with one fallen; and • Several areas of damaged limbs, lifted bark, woodpecker holes and tear-outs. **PRF-M**.	PRF (assumed PRF-M)

Tree/ Group Ref. No.	Photograph	Tree Species	Potential Roost Features and their Suitability	Roosting Suitability of Tree (where Applicable)
G27a and b (within Additional Survey Area)		Dead trees	• Several trees with areas of lifted bark. **PRF-I**; and • A single woodpecker hole at the top of a south-facing limb on G27b. **PRF-M**.	PRF (assumed PRF-M)

Tree/ Group Ref. No.	Photograph	Tree Species	Potential Roost Features and their Suitability	Roosting Suitability of Tree (where Applicable)
G29		Willow	• Several broken limbs. **PRF-I**; • Several areas of lifted bark. **PRF**; and • Several woodpecker holes on the trunk. **PRF-I**.	PRF (assumed PRF-I)
G29a	No photo	Willow sp.	• Split in branch, at 3m height, on the south side (river side). **PRF-I**;	PRF (assumed PRF-I)

Tree/ Group Ref. No.	Photograph	Tree Species	Potential Roost Features and their Suitability	Roosting Suitability of Tree (where Applicable)
T33	No photo	Oak	• Large trunk cavity, north facing, at 1.5m height. Owl pellets at base of trunk. **PRF-M**; and • Rot hole in south-western side of trunk, at 2m height. **PRF-I**.	PRF (assumed PRF-M)
T45		Oak	• Poor condition, ivy covered. **FAR**.	FAR

Tree/ Group Ref. No.	Photograph	Tree Species	Potential Roost Features and their Suitability	Roosting Suitability of Tree (where Applicable)
T46	No photo	Oak	• Abundant ivy throughout canopy and some dead branches **PRF-I**	PRF (assumed PRF-I)
T49	No photo	Willow	• Coppiced willow with dense ivy. **PRF-I**; and • Cracked bark. **PRF-I**.	PRF (assumed PRF-I)
T50	No photo	Ash	• Hole in Central branch, caused by a split, at 4m height and south facing. **PRF-M**; and • Woodpecker hole on a southern branch, at 3m height and south facing. **PRF-I**.	PRF (assumed PRF-M)

Tree/ Group Ref. No.	Photograph	Tree Species	Potential Roost Features and their Suitability	Roosting Suitability of Tree (where Applicable)
H43a		Willow	• Split in tree, with a woodpecker hole in the split. **PRF-M**; and • Within dense woodland.	PRF (assumed PRF-M)

Buildings/Built Structures/Underground Site Surveys

Preliminary Roost Assessment

A5.37 The preliminary roost assessment/inspection of buildings identified one building with suitable features for bat roosting, but no confirmed roosts were recorded during the PRA. Overall, this building is considered to provide moderate roosting suitability for bats.

A5.38 Further details on each of the buildings inspected are provided in **Table EDP A5.4** and its location is shown on **Plan EDP 6**.

Table EDP A5.4: Preliminary Bat Roost Assessment of Buildings

Building Ref. No.	Photograph	Description and Potential Roost Features	Overall Roosting Suitability
B1		An old, open-sided barn. The building is light inside but there are suitable bat roost features including accessible mortice joints internally and fascia board gaps externally at the rear of the building. No evidence of bats was found inside but these features could be used by crevice dwelling bat species.	Moderate for the building as a whole.

Bat Activity Surveys

Nighttime Bat Walkover

A5.39 As noted above in relation to the scope/design of the bat activity surveys, the initial habitat assessment of the Site found the Site to be of Moderate suitability for foraging and commuting bats. This is due to the network of hedgerows bounding the fields, woodland edges and stream within the Site, alongside the River Avon which is adjacent to the Site boundary. Although there are higher suitability habitats (the river and the woodlands), these are all off-site or on the Site's boundary and being retained and buffered.

A5.40 During the stationary part of the NBW surveys, very limited activity was recorded, and no confirmed roosts were identified. During the October survey, there were two observations of a soprano pipistrelle around 20 minutes after sunset, these were seen commuting along a hedgerow (**H11**) heading away from an area of on-site woodland and reedbeds. The survey in April recorded both common and soprano pipistrelle commuting along the same woodland edge and nearby hedgerows, with the first recording made around 25 minutes after sunset. During the survey in June, there were multiple observations of a noctule foraging close to the stationary observation point, with the first recording made around 20 minutes after sunset. It is possible that these individuals were roosting on or in close proximity to the Site, most likely in the small pocket of Lowland Mixed Deciduous Woodland, possibly in tree reference **H43a** (see **Plan EDP 8**), but this was not confirmed.

A5.41 Overall, levels of bat activity recorded during the NBW surveys were generally moderate. There were relatively higher levels of activity recorded in April compared to October and June, with October having the lowest level of activity. Seven species were recorded in total, with common and soprano pipistrelle generally dominant, though significantly more soprano pipistrelle were recorded in October compared to common pipistrelle. Other species recorded include serotine, myotis sp. and noctule. A single observation was made of a greater horseshoe in June 2025 in the pasture fields alongside the River Avon, and a lesser horseshoe commuting along the woodland off-site (in the Additional Survey Area).

A5.42 Activity during these surveys was scattered throughout the Site, however higher levels of activity were often associated with the central hedgerows (particularly **H4** and **H5**), along with some activity around the northern boundary hedgerow. Observations included a mixture of commuting and foraging activity. A large proportion of the bats were associated with the off-site River Avon as well as the woodland strip within the Additional Survey Area.

A5.43 The results of the NBW surveys are illustrated on **Plan EDP 10**-**12**.

Automated Detector Surveys

A5.44 Levels of bat activity recorded during the automated detector surveys were generally moderate, with relatively higher levels recorded in April with 5193 passes recorded, and also in July with 4335 passes recorded (note, however, that July's figure only includes data from three locations rather than four due to a detector failure). Relatively lower levels were recorded in October with just 667 passes recorded.

A5.45 Location 1 (on **Plan EDP 9**) generally had the highest levels of activity, with 5,256 passes recorded in total across the survey period. Location 1 was located along the northern boundary -

a native hedgerow with trees with connectivity to the wider Site and likely provides a commuting feature. Location 4 recorded the lowest levels of activity, with 3,636 passes recorded across the survey period, and was located within a line of trees adjacent to the river. Location 1 and Location 3 recorded a similar level of activity, with 4,055 and 4,184 passes respectively across the survey period, however the data for both locations only represents five months rather than seven due to detector failures.

A5.46 The results of the automated detector surveys are provided, in detailed and summary form, within **Tables EDP A5.5** to **A5.13**. These results are also described below for the assemblage as whole and on a species-by-species basis. The species accounts also draw upon information collated during the desk study and published data on national conservation status[49].

A5.47 A total of 11 bat species/species groups (*Myotis* and long-eared bat species were not identified to species level), were confirmed to be present foraging and/or commuting within the Site during the automated detector surveys. The vast majority of recorded bat calls were of soprano pipistrelle (42%) and common pipistrelle (33%). Calls of *myotis* sp., noctule, serotine, Leisler's bat, long-eared bat sp., Nathusius' pipistrelle, barbastelle, lesser horseshoe bat and greater horseshoe bat make up a small minority of the total.

A5.48 Barbastelle, lesser horseshoe bat and greater horseshoe bat are all Annex II species, and as such, afford higher levels of protection. Barbastelle were recorded across all months, except for April, and at all four locations with a total of 164 passes during the survey period. Activity was highest in July when 79 passes were recorded, with 78 of these passes recorded at Location 2. Lesser horseshoe bat were recorded across all months and at all four locations with a total of 358 passes during the survey period, however, there was a notable peak at Location 1 in April when 169 passes were recorded. Greater horseshoe bat were also recorded across all months and at all four locations, however, there was generally a low amount of activity during all months with only 29 passes recorded across the whole survey period. October had the highest total with seven passes, six of which were recorded at Location 1.

Automated Detector Data Tables

Table EDP A5.5: Automated Detector Survey Results September 2024

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		11/09/2025	12/09/2024	13/09/2024	14/09/2024	15/09/2024	
1	Common pipistrelle	0	1	8	10	50	**69 (35.57%)**
	Soprano pipistrelle	0	1	2	4	64	**71 (36.60%)**
	Noctule	0	0	0	1	0	**1 (0.52%)**
	Serotine	0	0	1	0	2	**3 (1.55%)**

[49] https://www.bats.org.uk/our-work/national-bat-monitoring-programme/reports/nbmp-annual-report

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		11/09/2025	12/09/2024	13/09/2024	14/09/2024	15/09/2024	
	Myotis sp.	0	0	8	13	18	**39 (20.10%)**
	Long-eared bat sp.	0	0	0	3	0	**3 (1.55%)**
	Lesser horseshoe bat	0	0	2	2	4	**8 (4.12%)**
	Total	**0**	**2**	**21**	**33**	**138**	**194 (100.00%)**
2	Detector failed						
3	Common pipistrelle	0	1	5	9	147	**162 (26.47%)**
	Soprano pipistrelle	0	1	1	30	220	**252 (41.18%)**
	Noctule	0	0	0	3	1	**4 (0.65%)**
	Leisler's bat	0	0	1	0	0	**1 (0.16%)**
	Serotine	0	0	0	0	3	**3 (0.49%)**
	Myotis sp.	23	7	16	37	50	**133 (21.73%)**
	Long-eared bat sp.	2	0	1	5	6	**14 (2.29%)**
	Barbastelle	2	0	1	2	2	**7 (1.14%)**
	Lesser horseshoe bat	10	2	3	12	5	**32 (5.23%)**
	Greater horseshoe bat	1	0	0	2	1	**4 (0.65%)**
	Total	**38**	**11**	**28**	**100**	**435**	**612 (100.00%)**
4	Common pipistrelle	0	0	1	9	20	**30 (11.28%)**
	Soprano pipistrelle	0	2	27	28	120	**177 (66.54%)**
	Nathusius' pipistrelle	0	0	1	0	0	**1 (0.38%)**
	Noctule	1	0	0	1	4	**6 (2.26%)**
	Serotine	0	0	0	0	3	**3 (1.13%)**

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		11/09/2025	12/09/2024	13/09/2024	14/09/2024	15/09/2024	
	Myotis sp.	4	7	13	8	5	**37 (13.91%)**
	Long-eared bat sp.	0	0	1	0	0	**1 (0.38%)**
	Barbastelle	0	0	0	1	0	**1 (0.38%)**
	Lesser horseshoe bat	2	0	1	7	0	**10 (3.76%)**
	Total	**7**	**9**	**44**	**54**	**152**	**266 (100.00%)**

Table EDP A5.6: Automated Detector Survey Results October 2024

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		23/10/2024	24/10/2024	25/10/2024	26/10/2024	27/10/2024	
1	Common pipistrelle	2	1	6	5	4	**18 (20.00%)**
	Soprano pipistrelle	2	1	6	0	1	**10 (11.11%)**
	Nathusius' pipistrelle	0	0	0	0	3	**3 (3.33%)**
	Leisler's bat	0	0	0	1	0	**1 (1.11%)**
	Serotine	0	0	2	0	0	**2 (2.22%)**
	Myotis sp.	2	3	11	4	25	**45 (50.00%)**
	Long-eared bat sp.	1	0	0	0	0	**1 (1.11%)**
	Lesser Horseshoe bat	2	0	2	0	0	**4 (4.44%)**
	Greater horseshoe bat	1	0	1	0	4	**6 (6.67%)**
	Total	**10**	**5**	**28**	**10**	**37**	**90 (100.00%)**
2	Common pipistrelle	6	114	1	0	4	**125 (71.43%)**

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		23/10/2024	24/10/2024	25/10/2024	26/10/2024	27/10/2024	
	Soprano pipistrelle	2	26	4	0	4	**36 (20.57%)**
	Myotis sp.	1	2	1	0	0	**4 (2.29%)**
	Barbastelle	0	1	0	0	0	**1 (0.57%)**
	Lesser horseshoe bat	2	6	1	0	0	**9 (5.14%)**
	Total	**11**	**149**	**7**	**0**	**8**	**175 (100.00%)**
3	Common pipistrelle	0	0	3	0	9	**12 (11.32%)**
	Soprano pipistrelle	4	13	24	0	12	**53 (50.00%)**
	Noctule	0	1	0	0	0	**1 (0.94%)**
	Myotis sp.	7	4	11	6	8	**36 (33.96%)**
	Lesser Horseshoe bat	2	0	2	0	0	**4 (3.77%)**
	Total	**13**	**18**	**40**	**6**	**29**	**106 (100.00%)**
4	Common pipistrelle	2	123	4	0	0	**129 (43.58%)**
	Soprano pipistrelle	5	102	3	0	1	**111 (37.50%)**
	Nathusius' pipistrelle	1	1	0	0	0	**2 (0.68%)**
	Serotine	1	0	0	0	0	**1 (0.34%)**
	Myotis sp.	13	14	8	6	7	**48 (16.22%)**
	Long-eared bat sp.	0	2	1	0	1	**4 (1.35%)**
	Greater horseshoe bat	1	0	0	0	0	**1 (0.34%)**
	Total	**23**	**242**	**16**	**6**	**9**	**296 (100.00%)**

Table EDP A5.7: Automated Detector Survey Results April 2025

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		15/04/2025	16/04/2025	17/04/2025	18/04/2025	19/04/2025	
1	Common pipistrelle	273	1	7	467	97	**845 (47.85%)**
	Soprano pipistrelle	324	1	0	389	18	**732 (41.45%)**
	Nathusius' pipistrelle	0	0	0	1	0	**1 (0.06%)**
	Noctule	0	0	0	0	8	**8 (0.45%)**
	Leisler's bat	0	0	0	2	0	**2 (0.11%)**
	Myotis sp.	2	0	2	0	4	**8 (0.45%)**
	Long-eared bat sp.	0	0	0	0	1	**1 (0.06%)**
	Lesser horseshoe bat	14	0	6	134	15	**169 (9.57%)**
	Total	**613**	**2**	**15**	**993**	**143**	**1,766 (100.00%)**
2	Common pipistrelle	136	23	39	113	84	**395 (55.71%)**
	Soprano pipistrelle	63	25	22	99	69	**278 (39.21%)**
	Nathusius' pipistrelle	1	0	2	0	0	**3 (0.42%)**
	Noctule	0	0	1	1	0	**2 (0.28%)**
	Leisler's bat	1	0	0	0	1	**2 (0.28%)**
	Myotis sp.	7	4	4	4	5	**24 (3.39%)**
	Lesser horseshoe bat	0	4	0	0	0	**4 (0.56%)**
	Greater horseshoe bat	1	0	0	0	0	**1 (0.14%)**
	Total	**209**	**56**	**68**	**217**	**159**	**709 (100.00%)**
3	Common pipistrelle	67	57	8	19	10	**161 (6.65%)**

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		15/04/2025	16/04/2025	17/04/2025	18/04/2025	19/04/2025	
	Soprano pipistrelle	1,579	30	7	599	37	**2,252 (93.02%)**
	Noctule	0	0	2	0	0	**2 (0.08%)**
	Myotis sp.	2	0	0	2	1	**5 (0.21%)**
	Long-eared bat sp.	0	0	0	1	0	**1 (0.04%)**
	Total	**1,648**	**87**	**17**	**621**	**48**	**2,421 (100.00%)**
4	Common pipistrelle	8	1	7	15	207	**238 (80.13%)**
	Soprano pipistrelle	7	2	2	6	20	**37 (12.46%)**
	Noctule	0	0	0	2	0	**2 (0.67%)**
	Myotis sp.	0	1	1	4	8	**14 (4.71%)**
	Lesser horseshoe bat	0	0	1	1	3	**5 (1.68%)**
	Greater horseshoe bat	0	1	0	0	0	**1 (0.34%)**
	Total	**15**	**5**	**11**	**28**	**238**	**297 (100.00%)**

Table EDP A5.8: Automated Detector Survey Results May 2025

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		19/05/2025	20/05/2025	21/05/2025	22/05/2025	23/05/2025	
1	Common pipistrelle	42	244	13	42	12	**353 (56.30%)**
	Soprano pipistrelle	8	39	2	12	2	**63 (10.05%)**
	Nathusius' pipistrelle	1	0	0	1	0	**2 (0.32%)**
	Noctule	2	1	2	1	3	**9 (1.44%)**

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		19/05/2025	20/05/2025	21/05/2025	22/05/2025	23/05/2025	
	Leisler's bat	6	3	0	0	0	**9 (1.44%)**
	Serotine	44	55	3	5	3	**110 (17.54%)**
	Myotis sp.	14	12	6	12	3	**47 (7.50%)**
	Long-eared bat sp.	3	2	0	1	1	**7 (1.12%)**
	Barbastelle	15	1	0	0	0	**16 (2.55%)**
	Lesser horseshoe bat	2	6	0	0	0	**8 (1.28%)**
	Greater horseshoe bat	2	1	0	0	0	**3 (0.48%)**
	Total	**139**	**364**	**26**	**74**	**24**	**627 (100.00%)**
2	Common pipistrelle	23	165	15	37	201	**441 (56.50%)**
	Soprano pipistrelle	49	41	17	43	57	**207 (26.50%)**
	Nathusius' pipistrelle	0	0	0	0	1	**1 (0.13%)**
	Noctule	12	6	10	7	3	**38 (4.86%)**
	Serotine	4	34	9	7	6	**60 (7.68%)**
	Myotis sp.	0	5	5	0	5	**15 (1.92%)**
	Long-eared bat sp.	0	2	1	0	0	**3 (0.38%)**
	Barbastelle	0	0	0	1	1	**2 (0.26%)**
	Lesser horseshoe bat	1	7	0	2	4	**14 (1.80%)**
	Total	**89**	**260**	**57**	**97**	**278**	**781 (100.00%)**
3	Detector failed						
4	Common pipistrelle	7	14	0	21	121	**163 (33.00%)**
	Soprano pipistrelle	44	50	0	12	163	**269 (54.45%)**

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		19/05/2025	20/05/2025	21/05/2025	22/05/2025	23/05/2025	
	Nathusius' pipistrelle	0	0	0	0	1	**1 (0.20%)**
	Noctule	13	8	0	13	23	**57 (11.54%)**
	Leisler's bat	0	1	0	1	0	**2 (0.40%)**
	Serotine	0	0	0	0	1	**1 (0.20%)**
	Myotis sp.	0	0	0	0	1	**1 (0.20%)**
	Total	**64**	**73**	**0**	**47**	**310**	**494 (100.00%)**

Table EDP A5.9: Automated Detector Survey Results June 2025

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		10/06/2025	11/06/2025	12/06/2025	13/06/2025	14/06/2025	
1	Common pipistrelle	14	235	66	40	1	**356 (52.90%)**
	Soprano pipistrelle	7	37	13	16	3	**76 (11.30%)**
	Nathusius' pipistrelle	0	1	0	0	0	**1 (0.15%)**
	Noctule	4	71	41	29	11	**156 (23.18%)**
	Leisler's bat	1	10	2	1	0	**14 (2.08%)**
	Serotine	1	9	4	16	0	**30 (4.46%)**
	Myotis sp.	2	12	2	9	2	**27 (4.01%)**
	Long-eared bat sp.	1	0	0	0	0	**1 (0.15%)**
	Barbastelle	0	1	0	1	0	**2 (0.30%)**
	Lesser horseshoe bat	1	4	0	3	0	**8 (1.19%)**
	Greater horseshoe bat	0	1	0	1	0	**2 (0.30%)**

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		10/06/2025	11/06/2025	12/06/2025	13/06/2025	14/06/2025	
	Total	**31**	**381**	**128**	**116**	**17**	**673 (100.00%)**
2	Common pipistrelle	9	30	40	24	19	**122 (35.06%)**
	Soprano pipistrelle	17	4	9	15	2	**47 (13.51%)**
	Nathusius' pipistrelle	0	0	1	0	0	**1 (0.29%)**
	Noctule	3	21	4	10	0	**38 (10.92%)**
	Leisler's bat	0	1	0	0	0	**1 (0.29%)**
	Serotine	7	5	2	4	0	**18 (5.17%)**
	Myotis sp.	33	65	13	8	0	**119 (34.20%)**
	Long-eared bat sp.	1	0	0	0	0	**1 (0.29%)**
	Lesser horseshoe bat	0	1	0	0	0	**1 (0.29%)**
	Total	**70**	**127**	**69**	**61**	**21**	**348 (100.00%)**
3	Common pipistrelle	13	15	13	20	9	**70 (19.44%)**
	Soprano pipistrelle	9	4	10	17	35	**75 (20.83%)**
	Nathusius' pipistrelle	0	0	0	1	0	**1 (0.28%)**
	Noctule	16	24	32	61	9	**142 (39.44%)**
	Leisler's bat	0	1	1	1	0	**3 (0.83%)**
	Serotine	3	1	8	9	0	**21 (5.83%)**
	Myotis sp.	15	4	11	7	4	**41 (11.39%)**
	Lesser horseshoe bat	3	0	0	1	2	**6 (1.67%)**
	Greater horseshoe bat	0	1	0	0	0	**1 (0.28%)**

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		10/06/2025	11/06/2025	12/06/2025	13/06/2025	14/06/2025	
	Total	**59**	**50**	**75**	**117**	**59**	**360 (100.00%)**
4	Common pipistrelle	8	3	0	14	11	**36 (8.87%)**
	Soprano pipistrelle	7	11	2	18	31	**69 (17.00%)**
	Noctule	47	43	0	138	65	**293 (72.17%)**
	Serotine	0	1	0	1	3	**5 (1.23%)**
	Myotis sp.	1	1	0	0	0	**2 (0.49%)**
	Lesser horseshoe bat	0	1	0	0	0	**1 (0.25%)**
	Total	**63**	**60**	**2**	**171**	**110**	**406 (100.00%)**

Table EDP A5.10: Automated Detector Survey Results July 2025

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		15/07/2025	16/07/2025	17/07/2025	18/07/2025	19/07/2025	
1	Common pipistrelle	6	57	58	13	26	**160 (19.21%)**
	Soprano pipistrelle	0	67	59	18	20	**164 (19.69%)**
	Nathusius' pipistrelle	0	1	0	0	0	**1 (0.12%)**
	Noctule	0	41	107	138	9	**295 (35.41%)**
	Leisler's bat	0	4	24	30	4	**62 (7.44%)**
	Serotine	0	15	26	11	0	**52 (6.24%)**
	Myotis sp.	0	17	33	17	17	**84 (10.08%)**
	Long-eared bat sp.	1	2	0	5	2	**10 (1.20%)**
	Barbastelle	0	1	0	0	0	**1 (0.12%)**

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		15/07/2025	16/07/2025	17/07/2025	18/07/2025	19/07/2025	
	Lesser horseshoe bat	0	0	1	0	0	**1 (0.12%)**
	Greater horseshoe bat	0	0	2	1	0	**3 (0.36%)**
	Total	**7**	**205**	**310**	**233**	**78**	**833 (100.00%)**
2	Common pipistrelle	486	281	233	147	2	**1,149 (56.27%)**
	Soprano pipistrelle	72	86	206	345	4	**713 (34.92%)**
	Noctule	0	11	6	21	0	**38 (1.86%)**
	Leisler's bat	0	7	4	9	0	**20 (0.98%)**
	Serotine	0	6	8	1	0	**15 (0.73%)**
	Myotis sp.	5	7	8	0	0	**20 (0.98%)**
	Long-eared bat sp.	0	0	0	1	0	**1 (0.05%)**
	Barbastelle	3	4	25	46	0	**78 (3.82%)**
	Lesser horseshoe bat	3	2	1	2	0	**8 (0.39%)**
	Total	**569**	**404**	**491**	**572**	**6**	**2,042 (100.00%)**
3	Detector failed						
4	Common pipistrelle	6	21	45	18	99	**189 (12.95%)**
	Soprano pipistrelle	87	196	288	130	123	**824 (56.44%)**
	Nathusius' pipistrelle	0	0	1	0	0	**1 (0.07%)**
	Pipistrellus sp.	0	0	0	2	227	**229 (15.68%)**
	Noctule	2	17	22	8	12	**61 (4.18%)**
	Leisler's bat	0	0	2	0	0	**2 (0.14%)**
	Serotine	1	4	14	0	6	**25 (1.71%)**

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		15/07/2025	16/07/2025	17/07/2025	18/07/2025	19/07/2025	
	Myotis sp.	14	36	15	13	45	**123 (8.42%)**
	Long-eared bat sp.	0	2	2	0	1	**5 (0.34%)**
	Greater horseshoe bat	0	1	0	0	0	**1 (0.07%)**
	Total	**110**	**277**	**389**	**171**	**513**	**1,460 (100.00%)**

Table EDP A5.11: Automated Detector Survey Results August 2025

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		14/08/2025	15/08/2025	16/08/2025	17/08/2025	18/08/2025	
1	Common pipistrelle	16	158	15	129	39	**357 (33.27%)**
	Soprano pipistrelle	13	41	14	39	19	**126 (11.74%)**
	Pipistrellus sp.	0	0	7	3	0	**10 (0.93%)**
	Noctule	1	9	7	6	17	**40 (3.73%)**
	Leisler's bat	0	3	0	1	1	**5 (0.47%)**
	Serotine	3	6	2	4	2	**17 (1.58%)**
	Myotis sp.	21	39	28	48	48	**184 (17.15%)**
	Long-eared bat sp.	19	61	98	80	7	**265 (24.70%)**
	Barbastelle	0	9	7	12	3	**31 (2.89%)**
	Lesser horseshoe bat	3	8	7	14	3	**35 (3.26%)**
	Greater horseshoe bat	0	1	1	1	0	**3 (0.28%)**
	Total	**76**	**335**	**186**	**337**	**139**	**1,073 (100.00%)**

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		14/08/2025	15/08/2025	16/08/2025	17/08/2025	18/08/2025	
2	Detector failed						
3	Detector failed – See re-deployment survey results in Table EDP AX.X						
4	Common pipistrelle	18	18	4	14	3	**57 (13.67%)**
	Soprano pipistrelle	89	62	25	66	37	**279 (66.91%)**
	Noctule	7	17	4	5	3	**36 (8.63%)**
	Leisler's bat	0	0	0	1	0	**1 (0.24%)**
	Serotine	1	1	0	1	0	**3 (0.72%)**
	Myotis sp.	7	13	6	4	5	**35 (8.39%)**
	Long-eared bat sp.	2	1	2	0	0	**5 (1.20%)**
	Lesser horseshoe bat	0	0	0	0	1	**1 (0.24%)**
	Total	**124**	**112**	**41**	**91**	**49**	**417 (100.00%)**

Table EDP A5.12: Automated Detector Survey Results August 2025 Location 3 Re-deployment

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		22/08/2025	23/08/2025	24/08/2025	25/08/2025	26/08/2025	
3	Common pipistrelle	23	25	6	18	13	**85 (12.41%)**
	Soprano pipistrelle	27	82	17	42	36	**204 (29.78%)**
	Noctule	5	6	9	9	24	**53 (7.74%)**
	Serotine	0	6	0	0	0	**6 (0.885)**
	Myotis sp.	30	54	33	35	40	**192 (28.03%)**
	Long-eared bat sp.	27	8	23	15	14	**87 (12.70%)**
	Barbastelle	4	7	4	5	5	**25 (3.65%)**

Location	Bat Species	Number of Bat Passes Recorded per Night					Total (and Percentage)
		22/08/2025	23/08/2025	24/08/2025	25/08/2025	26/08/2025	
	Lesser horseshoe bat	4	13	2	3	8	**30 (4.38%)**
	Greater horseshoe bat	0	0	0	2	1	**3 (0.44%)**
	Total	**120**	**201**	**94**	**129**	**141**	**685 (100.00%)**

Table EDP A5.13: Monthly Summary of Automated Detector Surveys

Survey Month	Species	Number of Passes	% of Month Total
September 2024	Soprano pipistrelle	500	46.64
	Common pipistrelle	261	24.35
	Myotis sp.	209	19.50
	Lesser horseshoe bat	50	4.66
	Long-eared bat sp.	18	1.68
	Noctule	11	1.03
	Serotine	9	0.84
	Barbastelle	8	0.75
	Greater horseshoe bat	4	0.37
	Nathusius' pipistrelle	1	0.09
	Leisler's bat	1	0.09
	Total	**1,072**	**100.00**
October 2024	Common pipistrelle	284	42.58
	Soprano pipistrelle	210	31.48
	Myotis sp.	133	19.94
	Lesser horseshoe bat	17	2.55
	Greater horseshoe bat	7	1.05
	Nathusius' pipistrelle	5	0.75
	Long-eared bat sp.	5	0.75
	Serotine	3	0.45
	Noctule	1	0.15
	Leisler's bat	1	0.15
	Barbastelle	1	0.15
	Total	**667**	**100.00**

Survey Month	Species	Number of Passes	% of Month Total
April 2025	Soprano pipistrelle	3,299	63.53
	Common pipistrelle	1,639	31.56
	Lesser horseshoe bat	178	3.43
	Myotis sp.	51	0.98
	Noctule	14	0.27
	Nathusius' pipistrelle	4	0.08
	Leisler's bat	4	0.08
	Long-eared bat sp.	2	0.04
	Greater horseshoe bat	2	0.04
	Total	**5,193**	**100.00**
May 2025	Common pipistrelle	957	50.32
	Soprano pipistrelle	539	28.34
	Serotine	171	8.99
	Noctule	104	5.47
	Myotis sp.	63	3.31
	Lesser horseshoe bat	22	1.16
	Barbastelle	18	0.95
	Leisler's bat	11	0.58
	Long-eared bat sp.	10	0.53
	Nathusius' pipistrelle	4	0.21
	Greater horseshoe bat	3	0.16
	Total	**1,902**	**100.00**
June 2025	Noctule	629	35.20
	Common pipistrelle	584	32.68
	Soprano pipistrelle	267	14.94
	Myotis sp.	189	10.58
	Serotine	74	4.14
	Leisler's bat	18	1.01
	Lesser horseshoe bat	16	0.90
	Nathusius' pipistrelle	3	0.17
	Greater horseshoe bat	3	0.17
	Long-eared bat sp.	2	0.11
	Barbastelle	2	0.11
	Total	**1,787**	**100.00**
July 2025	Soprano pipistrelle	1,701	39.24
	Common pipistrelle	1,498	34.56
	Noctule	394	9.09
	Pipistrellus sp.	229	5.28

Survey Month	Species	Number of Passes	% of Month Total
	Myotis sp.	227	5.24
	Serotine	92	2.12
	Leisler's bat	84	1.94
	Barbastelle	79	1.82
	Long-eared bat sp.	16	0.37
	Lesser horseshoe bat	9	0.21
	Greater horseshoe bat	4	0.09
	Nathusius' pipistrelle	2	0.05
	Total	**4,335**	**100.00**
August 2025 (Including re-deployment of Detector at Location 3)	Soprano pipistrelle	609	28.00
	Common pipistrelle	499	22.94
	Myotis sp.	411	18.90
	Long-eared bat sp.	357	16.41
	Noctule	129	5.93
	Lesser horseshoe bat	66	3.03
	Barbastelle	56	2.57
	Serotine	26	1.20
	Pipistrellus sp.	10	0.46
	Leisler's bat	6	0.28
	Greater horseshoe bat	6	0.28
	Total	**2,175**	**100.00**

Evaluation of Species/Species Groups Recorded

Common Pipistrelle

A5.49 The desk study returned 592 records of common pipistrelle, including 37 records of confirmed roosts, within 4km of the Site. Of these roosts, only one related to a confirmed maternity roost which was recorded in 2022 and had a count of 36 bats. The closest record of a common pipistrelle is located around 215m east of the Site and was recorded in 2021.

A5.50 Overall, common pipistrelle accounted for 33% of all bat passes made during the automated detector surveys. Common pipistrelle were recorded at all four locations and during all survey months, with greatest number of common pipistrelle passes recorded in April, with a peak of 845 passes recorded at Location 1. There was also a significant peak in activity at Location 2 in July, with 1,149 passes, which was the highest number of passes recorded for all locations during all months.

A5.51 Activity was limited during the NBW survey in October with just a few common pipistrelle passes recorded; these were generally associated with hedgerow **H2** in the west of the Site and hedgerow **H4** in the centre of the Site. Activity was greater during the April and June NBW surveys with common pipistrelle recorded throughout the Site, though there was generally greater activity around the central hedgerows and towards the boundary with the River Avon to

the west of the Site. Common pipistrelle were only recorded once for the first 30 minutes of the survey after sunset across all NBW surveys, this was during the survey in April where a common pipistrelle was observed commuting along an on-site woodland edge and nearby hedgerows around 25 minutes after sunset. This combined with the overall activity recorded during the NBW surveys and a peak in activity during the automated detector survey in April, suggests that common pipistrelle are using the linear features on-site and adjacent to the Site for both foraging and as corridors for commuting.

A5.52 Common pipistrelle bats are common and widespread throughout the UK and South-west, with the most recent National Bat Monitoring Report[50] (NBMP) stating that common pipistrelle populations within the UK and England have increased in the long-term. Given the common nature of common pipistrelle in Wiltshire and the moderate activity levels within the Site, this species is considered to be of Less than Local level importance.

Soprano Pipistrelle

A5.53 The desk study returned 540 records of soprano pipistrelle, including 95 records of confirmed roosts with 10 of these relating to confirmed maternity roosts, within 4km of the Site. Multiple records of soprano pipistrelle are located from within the Site boundary.

A5.54 Overall, soprano pipistrelle accounted for 42% of all bat passes made during the automated detector surveys. Soprano pipistrelle were recorded at all four locations within the Site and during all survey months, with the greatest number of passes recorded in April. During the April survey period, there was a peak in activity at Location 3 with 2,252 recordings made, though over half of these were recorded on a single night (15 April 2025).

A5.55 Soprano pipistrelle were recorded during all three NBW surveys, with the greatest number of passes recorded in April. Activity was scattered across the Site during April and June, though there a peak in activity along the central hedgerows and towards the boundary with the River Avon to the west of the Site, with April noting particularly high amounts of activity close to the river. There were a fewer number of passes made in October and activity generally less scattered, with peaks in activity along hedgerows **H4**, **H11** and the River Avon. During the October survey, there were two observations of a soprano pipistrelle made around 20 minutes after sunset, these were seen commuting along hedgerow **H11** heading away from an area of on-site woodland and reedbeds. The survey in April also recorded a soprano pipistrelle which was observed commuting along the same woodland edge and nearby hedgerows, with the first recording made around 25 minutes after sunset. This combined with the overall activity recorded during the NBW surveys and a peak in activity during the automated detector survey in April, suggests that soprano pipistrelle are using the linear features on-site and adjacent to the Site for both foraging and as corridors for commuting.

A5.56 Soprano pipistrelles are widespread throughout the UK and South-west, and their population considered stable. Given the common nature of soprano pipistrelle in Wiltshire, particularly along river corridors, and the moderate levels of activity within the Site, this species is considered to be of Less than Local level importance.

[50] Bat Conservation Trust, 2025. The National Bat Monitoring Programme Annual Report 2024. Bat Conservation Trust, London. Available: https://cdn.bats.org.uk/uploads/pdf/Our%20Work/NBMP/NBMP-annual-report-2024.pdf?v=1762791668&_gl=1*tt837u*_ga*MzgwMzAzMDQ0LjE3Mzg5NDY3MTc.*_ga_G28378TB9V*czE3NjQwODcy

Nathusius' Pipistrelle

A5.57 The desk study returned two records of Nathusius' pipistrelle with 4km of the Site, with the closest record located 2.17km east of the Site and recorded in 2014. There were no records for any known roosts within 4km of the Site.

A5.58 Nathusius' pipistrelle were recorded in very low numbers during the majority of the automated detector survey periods, aside from August where they were absent. This accounts for 0.1% of all bat passes made during the automated detector surveys. The greatest number recorded (five recordings) was in October. Nathusius' pipistrelle were recorded at all four locations, with Location 1 having the greatest number of passes (eight recordings) and Location 3 having the fewest number of passes (one recording), though there was a detector failure at Location 3 during both May and July.

A5.59 No Nathusius' pipistrelle were recorded during any of the NBW surveys.

A5.60 Nathusius' pipistrelle is considered rare in the UK and of restricted distribution in the South-west and Wiltshire, though there is a good chance of recording migrating individuals down river corridors in Wiltshire. Given the very low activity within the Site, there is no indication that a Nathusius' pipistrelle roost is located within or adjacent to the Site nor that the Site is a key foraging location, with it more likely that only occasional individuals pass through the Site. Nathusius' pipistrelle is therefore considered to be of Less than Local level importance.

Noctule

A5.61 The desk study returned 202 records of noctule, with the closest record located adjacent to the western boundary of the Site recorded in 2015. Of these 202 records, 20 relate to a known roost, however, none of these are recorded as being a maternity roost.

A5.62 Noctule accounted for 7% of all bat passes made during the automated detector surveys and were recorded during all survey months and at all four locations. The greatest number of passes were recorded in June, where they were the most recorded species for this month and where just under half of all passes were recorded at Location 4 (within the Additional Survey Area). Overall, Location 1 recorded the greatest number of passes (509 recordings) while Location 2 recorded the fewest number of passes (116 recordings), however, there was a detector failure at Location 2 during both September and August.

A5.63 Noctule were only recorded during the June NBW survey, where their activity was centred around hedgerows **H4**, **H7** (close to tree **T22**) and **H3** (close to tree **T50**). Where a noctule was observed during the walked part of the NBW, their activity was generally noted as foraging at height. During the stationary observation period, there were multiple observations of a noctule foraging close to the stationary observation point, which was located within the field and close to a small area of woodland and reedbeds. The first recording made was around 20 minutes after sunset. Based on the observations made during the NBW survey, the level of activity reflects a low number of noctule foraging repeatedly along/over a particular habitat rather than a greater number of bats.

A5.64 Noctule are relatively widespread in England and the South-west, with the population in the UK considered stable in the long-term. Given the widespread nature of this species in Wiltshire and moderate level of activity, this species is considered to be of Less than local level importance.

Leisler's Bat

A5.65 The desk study returned 14 records of Leisler's bat within 4km of the Site, the closest of which is located around 570m north of the Site recorded in 2014. There were no records for any known roosts within 4km of the Site.

A5.66 Leisler's bat were recorded in very low numbers during the automated detector survey period, accounting for 0.7% of all bat passes made. Leisler's bat were recorded during all months and at all four locations, though they were only recorded once during both September and October. The greatest number recorded was in July where there was a peak of 62 passes made at Location 1. Leisler's bat were recorded at all four locations, with Location 1 having the greatest number of passes (93 recordings) and Locations 3 and 4 having the fewest number of passes (four and five recordings respectively), however, there was a detector failure at Location 3 during both May and July.

A5.67 No Leisler's bat were recorded during any of the NBW surveys.

A5.68 Leisler's are an uncommon but widespread species throughout England, with a restricted distribution in the South-west and Wiltshire, though are under recorded with the population trend considered data deficient by the NBMP. The inconsistent and low levels of recordings across the detector locations and majority of survey months, along with an absence during the NBW surveys, suggests that the Site does not provide a key foraging or commuting resource for Leisler's bat in the context of the wider landscape. Leisler's bat are therefore considered to be of Less than local level importance.

Serotine

A5.69 The desk study returned 135 records of serotine within 4km of the Site, the closest of which is located adjacent to the western boundary of the Site recorded in 2015. Of these 135 records, nine relate to a known roost, however, none of these are recorded as being a maternity roost.

A5.70 Serotine were recorded in low numbers during the automated detector survey period, accounting for 2% of all bat passes made. Serotine were recorded during all survey months, aside from April where they were absent, and at all four locations. The greatest number recorded was in May, with just under two thirds of May's total passes recorded at Location 1 (110 recordings). Overall, Location 1 recorded the greatest number of passes (214 recordings) while Location 3 recorded the fewest number of passes (30 recordings), however, there was a detector failure at Location three during both May and July.

A5.71 Serotine were recorded during all three NBW surveys, however, activity was generally limited, and no serotine were recorded during the stationary observation period. The greatest amount of activity was recorded in June, with serotine recorded at a few locations around the Site: close to hedgerows **H4** as well as off-site adjacent to the river and in the additional survey area. In October, activity was centred around a line of trees (**TL2**) adjacent to the River Avon. In April, activity was centred around a line of trees (**TL1**), which is located adjacent to the River Avon in the Additional Survey Area.

A5.72 Serotine are mainly distributed across the south of the UK, and the species has been found widespread across Wiltshire but is not considered abundant. Based upon observations made during the NBW surveys and the location of activity recorded, it is likely that serotine are using

areas of the Site to forage, for example along the river margin and woodland edge. Serotine generally roost in buildings and are hardly ever found roosting in trees. Serotine bat are therefore considered to be of Local level importance.

Myotis sp.

A5.73 The desk study returned 297 recordings of Myotis sp. within 4km of the Site, including 19 records of Bechstein's bat which is an Annex II species. Seven records of Bechstein's bat relate to known roosts, with three of these relating to known maternity roosts. Other species of *Myotis* sp. recorded include Brandt's bat, Daubenton's bat, Natterer's bat and whiskered bat. The closest records for *Myotis* sp. relates to a single Bechstein's bat recorded in 2022 and a Natterer's bat recorded in 2021, both of which are located in areas of off-site woodlands to the south of the Site; the Natterer's roost being adjacent to the Additional Survey Area, and the Bechstein's roost being 350m from the Site's southern boundary.

A5.74 *Myotis* sp. accounted for 7% of all bat passes recorded during the automated detector surveys and were recorded during all survey months and at all four locations. Species within the group Myotis display similar echolocation behaviours, thereby rendering it difficult to use sonogram analysis for identifying Myotis to a species level. The greatest number of passes were recorded in August where the majority of recordings were split between Locations 1 and 3, however, note that there was a detector failure at Location 2 during August. Overall, Locations 1 and 3 recorded the greatest number of passes (434 and 407 recordings respectively), despite Location 3 having a detector failure during both May and July. Location 2 recorded the fewest number of passes.

A5.75 *Myotis* sp. were recorded during all three NBW surveys, however, activity was generally very low, and no *Myotis* sp. were recorded during the stationary observation period. During the NBW survey in October, activity was generally centred along a line of trees (**TL2**) which is adjacent to the River Avon. In April, activity was located along a hedgerow **H3** close to the tree **T50**. In June, activity was located close to a pond (**P1**) and along hedgerow **H4** close to tree **T46**.

A5.76 Bechstein's bats are primarily associated with deciduous semi-natural or ancient woodland, ideally of over 25ha in extent. While there are several pockets of woodland in the wider landscape that have been proven to be used by Bechstein's, including for maternity roosting, there is no large/strongly connected woodlands within the Site that would provide optimum habitat for foraging or roosting for this species. Therefore, it is highly unlikely that the registrations of *Myotis* sp. are attributed to Bechstein's bat, with any potential registrations likely attributed to Bechstein's bat commuting through the Site to more favourable areas.

A5.77 The Site and surrounding area contain suitable foraging habitat for Brandt's bat, Daubenton's bat, Natterer's bat and whiskered bat. These species have a widespread distribution across England and the South West. Given the moderate activity level recorded across the Site and their relative widespread populations in England, species of *Myotis* sp. potentially foraging on-site are considered to be of Less than Local Level importance.

Long-eared Bat

A5.78 Grey long-eared bat are restricted to parts of southern England and are considered absent in Wiltshire, therefore the long-eared bat sp. recorded on-site are assumed to be brown long-eared bat. The desk study retuned 15 records of long-eared bat within 4km of the Site, including 72 records of known roosts with five of these relating to a confirmed hibernation roosts. A few records of long-eared bat are located within the Site boundary, generally within the north of the Site.

A5.79 Long-eared bat sp. were recorded in low numbers during the automated detector survey period, accounting for 2% of all bat passes made. Long-eared bat sp. were recorded during all survey months and at all four locations. The greatest number recorded was in August, with 74% of all passes in August recorded at Location 1. These recordings were generally spread out across multiple nights. Overall, Location 1 recorded the greatest number of passes (288 recordings) while Locations 2 and 4 recorded the fewest number of passes (five and 15 recordings respectively). However, there was a detector failure at Location 2 during both September and August, though the number of passes recorded at Location 2 during all other months was also very low.

A5.80 No long-eared bat were recorded during any of the NBW surveys.

A5.81 Brown long-eared bats are common and widespread across the UK and are the second most widespread bat species in Wiltshire (after the common pipistrelle)[51]. Given the relatively low activity levels recorded across the Site and the context of the wider area, long-eared bat sp. are considered of Less than Local level importance.

Barbastelle

A5.82 The desk study returned 46 records of barbastelle within 4km of the Site, with the closest located around 1.2km west of the Site recorded in 2016. Two records returned from the desk study relate to a known roost, however neither of these are recorded as being a maternity roost.

A5.83 Barbastelle were recorded in low numbers during the automated detector survey period, accounting for 1% of all bat passes made. Barbastelle were recorded during all survey months, aside from April where they were absent, and at all four locations. The greatest number recorded was in July, which is their peak maternity season, with a peak count of 46 passes in any given night at any one location. Around 98% of all recordings made in July were recorded at Location 2, with recordings made across multiple nights. Overall, Location 2 recorded the greatest number of passes in total (79 recordings) while Location 4 recorded the fewest number of passes (one recording). Activity was generally inconsistent, with no recordings made on multiple nights during the survey period.

A5.84 No barbastelle were recorded during any of the NBW surveys.

A5.85 Barbastelle is an Annex II species which is rare and uncommon in the UK, however, the high degree of suitable habitats within Wiltshire may indicate that the county supports notable

[51] Wiltshire & Swindon Biological Records Centre, Wiltshire Mammal Group & Wiltshire Bat Group. Mammals in Wiltshire, 2017. Available: https://wiltshiremammals.wordpress.com/wp-content/uploads/2014/05/mammals-in-wiltshire_2nd-edition_ver-1-0.pdf

populations[52]. Given the inconsistent and low activity levels recorded across the Site, the context of the wider landscape and lack of known maternity roosts nearby, barbastelle are considered to be of Local level importance.

Lesser Horseshoe Bat

A5.86 The desk study returned 135 records of lesser horseshoe bat within 4km of the Site, with the closest record locations around 578m south-east of the Site recorded in 2003. Of the desk study records, 56 relate to a known roost, four of which are detailed as being a maternity roost and seven as a hibernation roosts.

A5.87 Lesser horseshoe bats typically roost and breed in buildings and hibernate in underground sites. There are no buildings (nor underground sites) suitable for roosting lesser horseshoe on or adjacent to the Site. The single building is sub-optimal for this species being too open (not providing significant shelter for a day roost for non-crevice bats), and no evidence of any bat species has been recorded during multiple years of internal inspections.

A5.88 Lesser horseshoe bats were recorded in low numbers during the majority of automated detector survey periods, accounting for 2% of all bat passes made. Lesser horseshoe bats were recorded during all survey months and at all four locations.

A5.89 Activity varied throughout the year, with the greatest number of passes recorded in April. Around 95% of all passes (134) made in April were recorded at Location 1 on one night. The next highest peak count for any night at any location was 15 also at Location 1 in April. Only five other nights recorded more than 10 passes on any detector, and most of these were also at Location 1. This shows that the single peak in April was a significant anomaly recorded at one location on one night. This single night was in April, when lesser horseshoes have emerged from hibernation, but likely before a maternity roost is occupied. Lesser horseshoe during this time will be very active, foraging more to replenish lost weight during hibernation and before maternity. Detailed analysis of the data has shown that during this night the lesser horseshoe were recorded from 1.5 hours after sunset to 2 hours before sunrise. This has shown that the roost is unlikely to be in very close proximity to the Site. In addition the calls were spread out throughout this period, most likely indicating a larger number of bats, rather than a few individuals passing the same detector multiple times.

A5.90 This is backed up by static surveys undertaken at the Site at the same locations in 2022. During this survey, lesser horseshoe were continuously recorded around the Site in very low numbers, however, a peak of 41 and 44 passes were recorded in April and September, again focused on two nights (one in each of April and September).

A5.91 The peaks in activity during April and September indicate that this hedgerow is of greater importance for lesser horseshoe bat during dispersal months, rather than during the summer (maternity) months.

[52] Wiltshire & Swindon Biological Records Centre, Wiltshire Mammal Group & Wiltshire Bat Group. Mammals in Wiltshire, 2017. Available: https://wiltshiremammals.wordpress.com/wp-content/uploads/2014/05/mammals-in-wiltshire_2nd-edition_ver-1-0.pdf

A5.92 Overall, Location 1 recorded the greatest number of passes (233 recordings across the entire survey period)- although as discussed this was mostly on a single night, while Location 4 recorded the fewest number of passes (17 recordings).

A5.93 Lesser horseshoe bat were only recorded during the NBW survey in April, with only one pass recorded, which was within the Additional Survey Area.

A5.94 Lesser horseshoe bat are an Annex II species and are considered to be rare in the UK, with a restricted distribution across the South West and Wiltshire, though the distribution in Wiltshire suggests a strong link to its woodland and river corridors. The Site does provide foraging habitat for lesser horseshoe bat, but no roosting opportunities are present, and given the lack of on-site woodland it is not considered optimal habitat, with the off-site river and woodlands providing the key areas. However, this species was consistently recorded in low numbers across the Site and survey period, aside from April, where a notable increase was recorded on a single night, and known roosts are located in the local area.

A5.95 As such, lesser horseshoe bats are considered to be of District level importance, particularly hedgerow **H3** and **H11** (the northern boundary) during dispersal months.

Greater Horseshoe Bat

A5.96 The desk study returned 69 records of greater horseshoe bat within 4km of the Site, the closest of which is located around 560m north of the Site recorded in 2014. Of these desk study records returned, 32 relate to a known roost, three of which are detailed as a hibernation roosts.

A5.97 Greater horseshoe bat were recorded in very low numbers but were recorded during all survey months and at all four locations, accounting for 0.2% of all bat passes made during the automated detector surveys. The greatest number recorded (seven recordings in total) was in October, with six of these passes recorded at Location 1. This was a peak count of four passes on any given night. Showing that it is most likely one or two individuals passing through the Site. Overall, Location 1 has the greatest number of passes (17 recordings across the entire survey period) while Location 2 had the fewest number of passes with only one recording made.

A5.98 Greater horseshoe bat were only recorded during the NBW survey in June, where their activity was limited and centred around an area of open habitat close to hedgerow **H13** in the north of the Site. No greater horseshoe were recorded during the stationary observation period.

A5.99 Greater horseshoe bat is an Annex II species and is considered to be rare in the UK with a very restricted distribution in the South-west, with the distribution on Wiltshire generally associated with well-known hibernation sites. In general, activity levels were very low during both the automated detector and NBW surveys, with greater horseshoe bat likely occasionally commuting across the Site or foraging as individuals or in very low numbers. No suitable roosting opportunities are present on-site and known roosts are present in the wider area. As such, greater horseshoe bat are considered to be of Local level importance.

Evaluation of Overall Bat Assemblage

A5.100 Whilst no roosts have been confirmed on-site, the Site contains 11 trees or tree groups, scattered across the Site, with potential roosting features. The Site also contains one building, an open-sided barn, with potential roosting features for crevice dwelling bat species. All of these are proposed to be retained.

A5.101 Levels of bat activity recorded during the automated surveys were moderate to high, with relatively higher levels recorded in April and relatively lower levels recorded in October. April is considered a key month for bats when the majority have come out of hibernation and actively foraging. The distribution of activity recorded was generally evenly spread across the Site, with Location 1 recording the greatest number of passes (31% of total passes). Location 1 lies within the north-west of the Site, positioned along a species-rich native hedgerow with trees located on the northern boundary of the Site. Locations 2 and 3 both recorded 24% of total passes each, however, both locations experienced detector failures for two months each, meaning their results only represent five months of data rather than seven. Location 4 recorded the fewest number of passes (21% of total passes). This detector was positioned amongst a line of trees which are adjacent to the River Avon, an area which generally experienced a higher amount of activity during the NBW surveys.

A5.102 The NBW surveys recorded moderate levels of activity within the Site and Additional Survey Area, the vast majority of which related to common and widespread species. Rarer species were only occasionally recorded and not in significant enough numbers to suggest that the Site is an important commuting or foraging resource for those species. There was limited activity during the stationary observation periods, with only common and widespread species recorded, the majority of which were observed foraging or commuting. No roosts were identified during the NBW surveys, however, it is likely that tree **H43a** may be used by common or soprano pipistrelle as an occasional roost.

A5.103 With reference to Table 3.3 of the Bat Mitigation Guidelines, due to the location of the Site and number of species, the importance of the bat assemblage recorded within the Site would be taken as "*national importance*". However, recordings of Nathusius' pipistrelle and greater horseshoe bat were very low (19 total passes and 29 total passes respectively), with no recordings made for either species during multiple nights of the survey period. Barbastelle were also recorded in low numbers, with 164 total passes made during the whole survey period and were also inconsistent, with no passes recorded during multiple nights of the survey period and only a very limited number of passes made during September, October and June. Barbastelle were absent in April and Nathusius' pipistrelle were absent in August. In addition, Barbastelle and Nathusius' pipistrelle were not recorded during any of the NBW surveys. Given the inconsistent and low numbers of Nathusius' pipistrelle, greater horseshoe bat and barbastelle bat, these have been excluded from the bat assemblage, and the overall site is therefore considered to be of County level importance.

Appendix EDP 6
Great Crested Newt Survey

METHODOLOGY

A6.1 The habitats on-site are of varying suitability for great crested newts. The majority of the Site is heavily managed arable fields, or intensively grazed pastureland. These are negligible or very low suitability habitats, with no refugia/hibernation sites, and minimal opportunities for foraging. The woodlands, damper grasslands/reedbeds and hedgerow are higher suitability, with areas suitable for refuge and hibernation as well as higher foraging value. Therefore, given the value and size of habitats on-site it was not considered that great crested newts would regularly travel over 250m to get to these terrestrial habitats. Therefore, only ponds within 250m of the Site were assessed.

HSI Assessment of Waterbodies

A6.2 A Habitat Suitability Index (HSI) Assessment is a standardised method[53] which uses a range of criteria, such as water quality, fish/waterfowl presence and surrounding terrestrial habitat quality, to derive a suitability score or 'index'. Waterbodies with high scores are more likely to support great crested newt compared to those with lower scores. HSI scores and the associated suitability categories for great crested newts are set out within **Table EDP A6.1**.

Table EDP A6.1: HSI Scores and Waterbody Suitability Categories

HSI Score	Suitability of Waterbody to Support Great Crested Newts
<0.5	Poor suitability
0.5–0.59	Below average suitability
0.6–0.69	Average suitability
0.7–0.79	Good suitability
>0.8	Excellent suitability

A6.3 A HSI Assessment was undertaken of all waterbodies on-site, and those within 250m of the Site. With reference to **Plan EDP 14**, the waterbodies assessed are ponds **P1** to **P5**. The assessment was undertaken by a suitably experienced ecologist on 16 April 2025.

Limitations

A6.4 All waterbodies were fully accessible, and the survey was undertaken in line with the guidelines. No significant constraints identified for this survey.

Environmental DNA Sampling of Waterbodies

A6.5 Environmental DNA (eDNA) is DNA that is collected from the environment in which an organism lives. In aquatic environments, animals including amphibians shed cellular material into the water via their saliva, urine, faeces, skin cells, etc. This eDNA may persist for several weeks,

[53] 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

and can be collected through a water sample, and analysed to determine if the target species of interest is/has been present in the waterbody. The eDNA sampling of waterbodies between 15 April and 30 June (inclusive) gives a highly reliable indication of the presence or likely absence of great crested newt.

A6.6 The eDNA sampling was undertaken of all waterbodies on-site, and those within 250m of the Site. With reference to **Plan EDP 14**, the waterbodies sampled are **P1**-**P5**. The sampling was undertaken by a suitably experienced ecologist on 16 April 2025, using sampling kits obtained from SureScreen Scientifics and following a standard protocol set out by the Freshwater Habitats Trust[54] which is approved by Natural England. Briefly, this protocol involves (per waterbody):

- Collecting 20 water samples from selected areas evenly spread around the accessible perimeter of the waterbody, including both open water and vegetated areas;
- Collecting a ladle of water at each sampling location, stirring the water column without stirring up sediment during collection;
- Shaking and inverting the combined samples thoroughly once all 20 ladles are collected; and
- Extracting 15ml of this mixed sample into six conical tubes, each containing preservative fluid, a shaking thoroughly to homogenize the sample.

A6.7 The water samples were then sent to SureScreen Scientifics be analysed for great crested newt eDNA, using real-time Polymerase Chain Reaction (PCR). The report was returned on 08 May 2025.

Limitations

A6.8 All waterbodies were fully accessible, and the survey was undertaken in line with the guidelines. No significant constraints identified for this survey.

RESULTS

A6.9 The results of the surveys of waterbodies are set out in **Table EDP A6.2**. These should be read in conjunction with **Plan EDP 14**.

A6.10 In summary, no evidence of great crested newts was recorded, and great crested newts are considered likely absent from the Site.

A6.11 A copy of the eDNA Analysis Report is provided separately as **Appendix EDP 7**.

[54] Biggs J, Ewald N, Valentini A, Gaboriaud C, Griffiths RA, Foster J, Wilkinson J, Arnett A, Williams P and Dunn F 2014. Analytical and methodological development for improved surveillance of the Great Crested Newt. Appendix 5. Technical advice note for field and laboratory sampling of great crested newt (Triturus cristatus) environmental DNA. Freshwater Habitats Trust, Oxford.

Table EDP A6.2: Great Crested Newt Survey Results

Waterbody	Photograph	Description	HSI	eDNA
On-site Waterbodies				
P1		Pond dry in 2025. (Negative eDNA results from a survey in 2022).		
P4		A small ephemeral pond heavily shaded by willow scrub.	Poor	Negative

Waterbody	Photograph	Description	HSI	eDNA
Off-site waterbodies				
P2		A heavily scrubbed up waterbody that appears to often connect up to pond **P3** during wetter periods. Dominated by *Typha* and *Phragmites australis,* riparian growth. The pond is 148m south of the Site.	Below average	Negative
P3		A larger waterbody to the south of pond **P2** with very little emergent or riparian vegetation due to heavy shade from adjacent willows. The pond is 247m south of the Site.	Good	Negative

Waterbody	Photograph	Description	HSI	eDNA
P5		A pond within 250m of the Additional Survey Area- but just outside 250m from the Site. The waterbody is dominated by common reed (*Phragmites australis*) where not shaded by willow.	Good	Negative

Appendix EDP 7
Great Crested Newt eDNA Analysis Report

Folio No:	523-2025
Purchase Order:	EDP 2272
Contact:	EDP Ltd
Issue Date:	08.05.2025
Received Date:	23.04.2025

GCN Report

Technical Report

SureScreen Scientifics

Folio No: 523-2025
Purchase Order: EDP 2272
Contact: EDP Ltd
Issue Date: 08.05.2025
Received Date: 23.04.2025

SureScreen Scientifics

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
GCN25 1162	Land East of Showell Farm - Pond 5	ST 91672 70477	Pass	Pass	Negative	0/12
GCN25 1166	Land East of Showell Farm - Pond 4	ST 91592 70818	Pass	Pass	Negative	0/12
GCN25 1173	Land East of Showell Farm - Pond 3	ST 91651 70510	Pass	Pass	Negative	0/12
GCN25 1174	Land East of Showell Farm - Pond 2	ST 91643 70539	Pass	Pass	Negative	0/12

Matters affecting result: none

Reported by: Chelsea Warner

Approved by: Lauryn Jewkes

Folio No:	523-2025
Purchase Order:	EDP 2272
Contact:	EDP Ltd
Issue Date:	08.05.2025
Received Date:	23.04.2025

SureScreen Scientifics

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.

Plans

Plan EDP 1: Baseline Habitat Plan
(edp2272_d075c 30 April 2026 VMS/PNe)

Plan EDP 2: Statutory Designated Sites
(edp2272_d067b 30 April 2026 VMS/PNe)

Plan EDP 3: Non-statutory Designated Sites and Off-site Notable Habitats
(edp2272_d068c 30 April 2026 VMS/PNe)

Plan EDP 4: River Condition Assessment Survey
(edp2272_d077b 30 April 2026 VMS/PNe)

Plan EDP 5: Breeding Bird Territory Map 2025
(edp2272_d080b 30 April 2026 VMS/PNe)

Plan EDP 6: Barn Owl Plan
(edp2272_d079b 30 April 2026 VMS/PNe)

Plan EDP 7: Winter Bird Surveys – 2024 to 2025
(edp2272_d078b 30 April 2026 VMS/PNe)

Plan EDP 8: Ground Level Tree Assessment for Bat Roosts
(edp2272_d071b 30 April 2026 VMS/PNe)

Plan EDP 9: Automated Detector Locations and NBW Transect Route
(edp2272_d062b 30 April 2026 VMS/PNe)

Plan EDP 10: Bat NBW Survey Results – October 2024
(edp2272_d063b 30 April 2026 VMS/PNe)

Plan EDP 11: Bat NBW Survey Results – April 2025
(edp2272_d064b 30 April 2026 VMS/PNe)

Plan EDP 12: Bat NBW Survey Results – June 2025
(edp2272_d065b 30 April 2026 VMS/PNe)

Plan EDP 13: Dormouse Survey
(edp2272_d074b 30 April 2026 VMS/PNe)

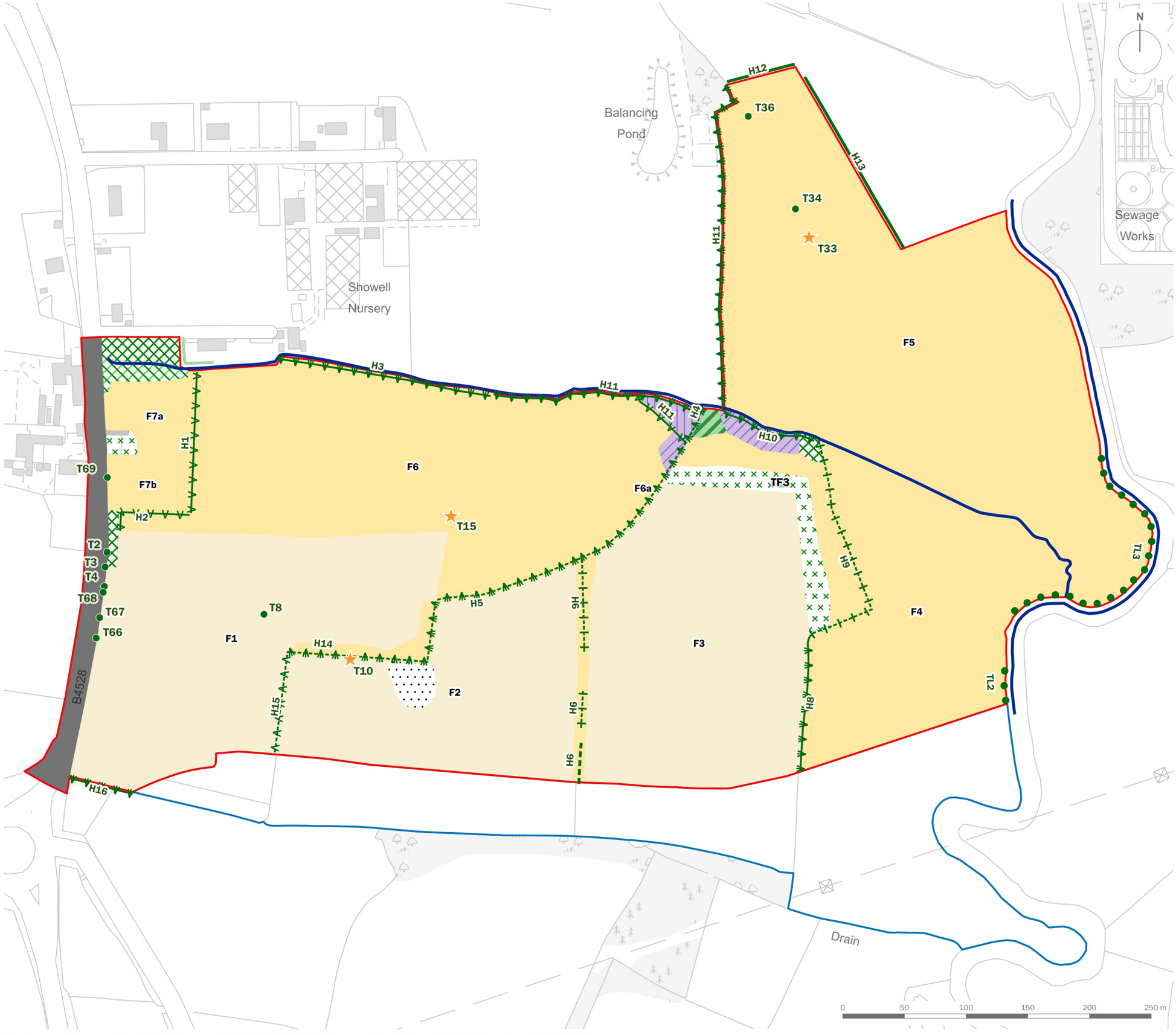
Plan EDP 14: Great Crested Newt Survey
(edp2272_d049c 20 March 2026 VMS/PNe)

Plan EDP 15: Reptile Survey
(edp2272_d073b 24 April 2026 VMS/PNe)

Plan EDP 16: Otter, Water Vole and Beaver Survey
(edp2272_d069b 30 April 2026 VMS/PNe)

Plan EDP 17: Badger Survey
(edp2272_d070b 24 April 2026 VMS/PNe)

Plan EDP 18: Proposed Habitats
(edp2272_d076a 30 April 2026 VMS/PNe)



Site Boundary
Additional Survey Area
Lowland Mixed Deciduous Woodland
Modified Grassland
Cereal Crops
Mixed Scrub
Bramble Scrub
Tall Forbs
Reedbeds
Developed Land; Sealed Surface
Built Linear Features
Bare Ground
Other Swamp
Line of Trees
Native Hedgerow
Native Hedgerow - Associated with Bank or Ditch
Native Hedgerow with Trees - Associated with Bank or Ditch
Non-native and Ornamental Hedgerow
Species-rich Native Hedgerow
Species-rich Native Hedgerow - Associated with Bank or Ditch
Species-rich Native Hedgerow with Trees
Species-rich Native Hedgerow with Trees - Associated with Bank or Ditch
Other Rivers and Streams
Rural Tree
Veteran Tree - Irreplaceable Habitat
F1/TF1 Field/Tall Forbs Reference
H1/TL1 Hedgerow/Line of Trees Reference
T1/G1a Tree Reference

client
Hallam Land

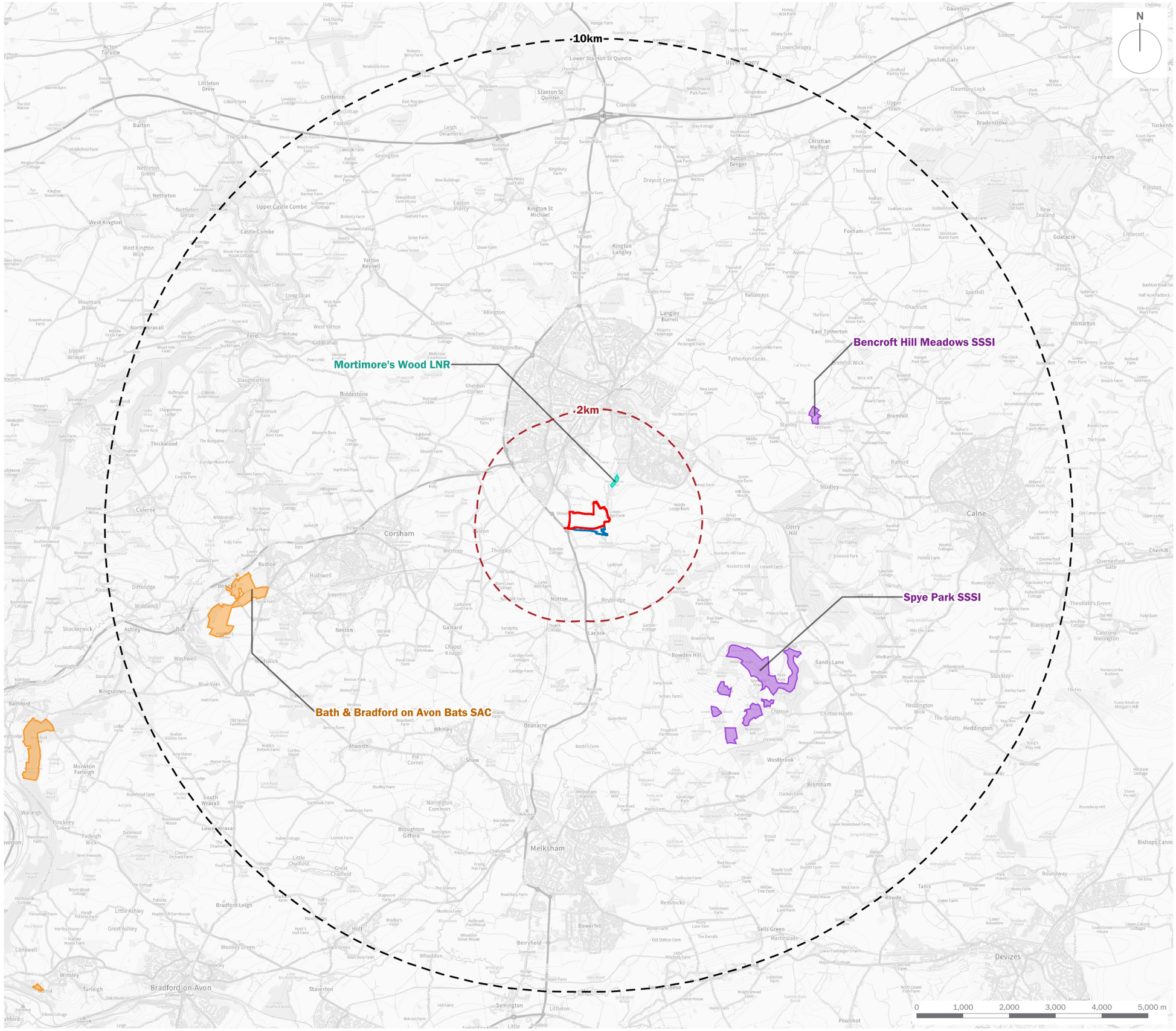
project title
Land East of Showell Farm, Chippenham

drawing title
Baseline Habitat Plan

date	**30 APRIL 2026**	drawn by	**VMS**
drawing number	**edp2272_d075c**	checked	**PNe**
scale	**1:3,000 @ A3**	QA	**DJo**

the environmental dimension partnership
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Site Boundary

Additional Survey Area

10km Range Ring

2km Detailed Study Area

Special Area Conservation (SAC)

Site of Special Scientific Interest (SSSI)

Local Nature Reserve (LNR)

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project title

Land East of Showell Farm, Chippenham

drawing title

Statutory Designated Sites

date	**30 APRIL 2026**	drawn by	**VMS**
drawing number	**edp2272_d067b**	checked	**PNe**
scale	**1:80,000 @ A3**	QA	**DJo**

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2km

500m

Baydons Meadow LWS

Bristol Avon River LWS

Mortimor's Wood LWS/LNR

Mynte Wood LWS

Middle Lodge Wood LWS

Traditional Orchard Priority Habitat

Lackham Wood LWS/ASNW

Notton (near Lacock) Verge. PV 3-25

Tacklemore Wood, Wheeler's Wood, Hazel Copse LWS/ASNW

Long Copse, Lacock LWS/ASNW

0 200 400 600 800 1,000 m

N

- Site Boundary
- Additional Survey Area
- 2km Range Ring
- 500m Detailed Study Area
- Local Nature Reserve (LNR)
- Local Wildlife Site (LWS)
- Ancient Semi-natural Woodland (ASNW)
- Lowland Mixed Deciduous Woodland Priority Habitat
- Wood-pasture and Parkland Priority Habitat
- Priority Habitat
- Protected Road Verge

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project title

Land East of Showell Farm, Chippenham

drawing title

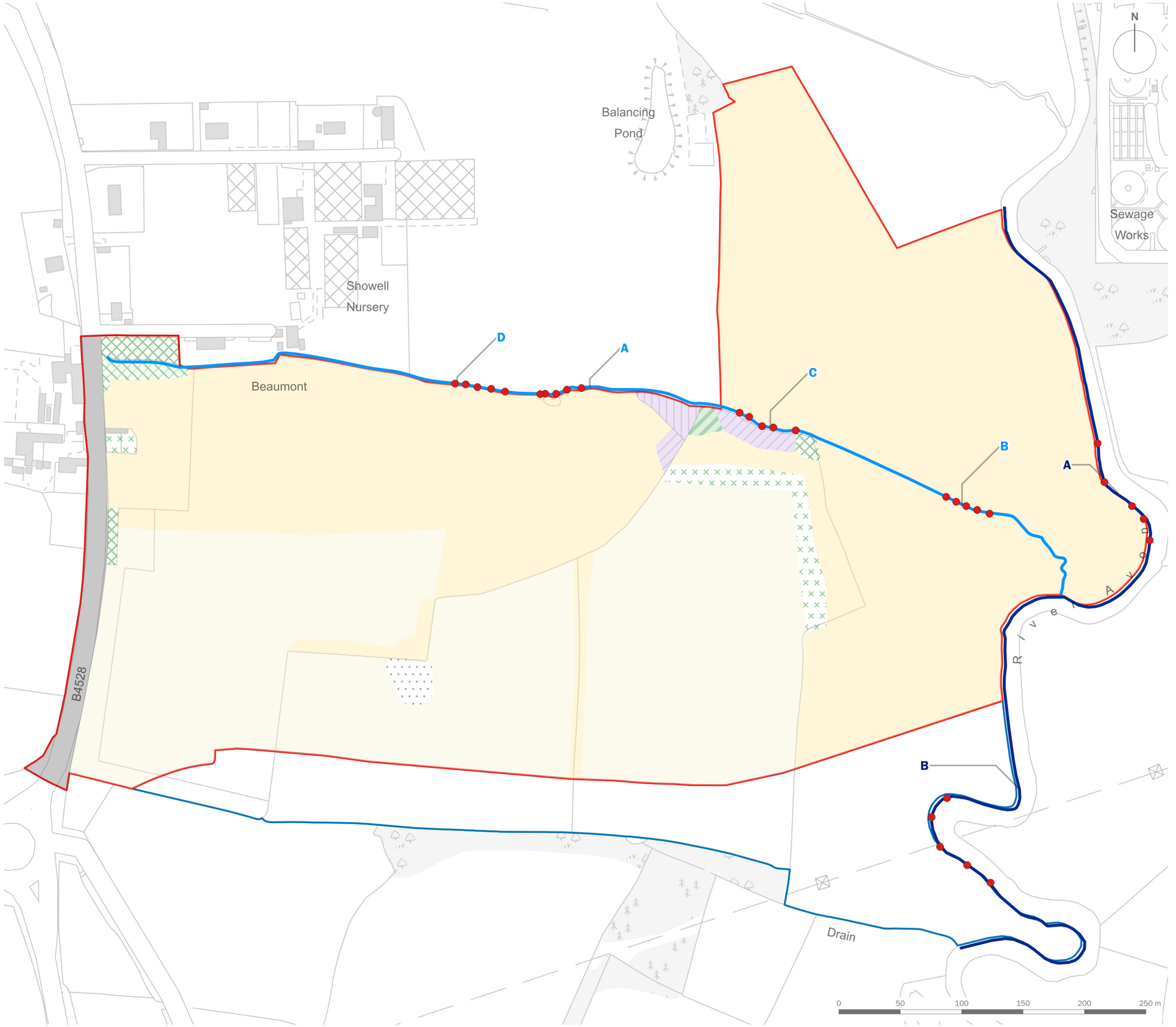
Non-statutory Designated Sites and Off-site Notable Habitats

date	**30 APRIL 2026**	drawn by	**JLe**
drawing number	**edp2272_d068c**	checked	**PNe**
scale	**1:20,000 @ A3**	QA	**DJo**

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Site Boundary

Additional Survey Area

A River Avon Subreach

A Tributary Stream Subreach

Module Locations

client

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project title

Land East of Showell Farm, Chippenham

drawing title

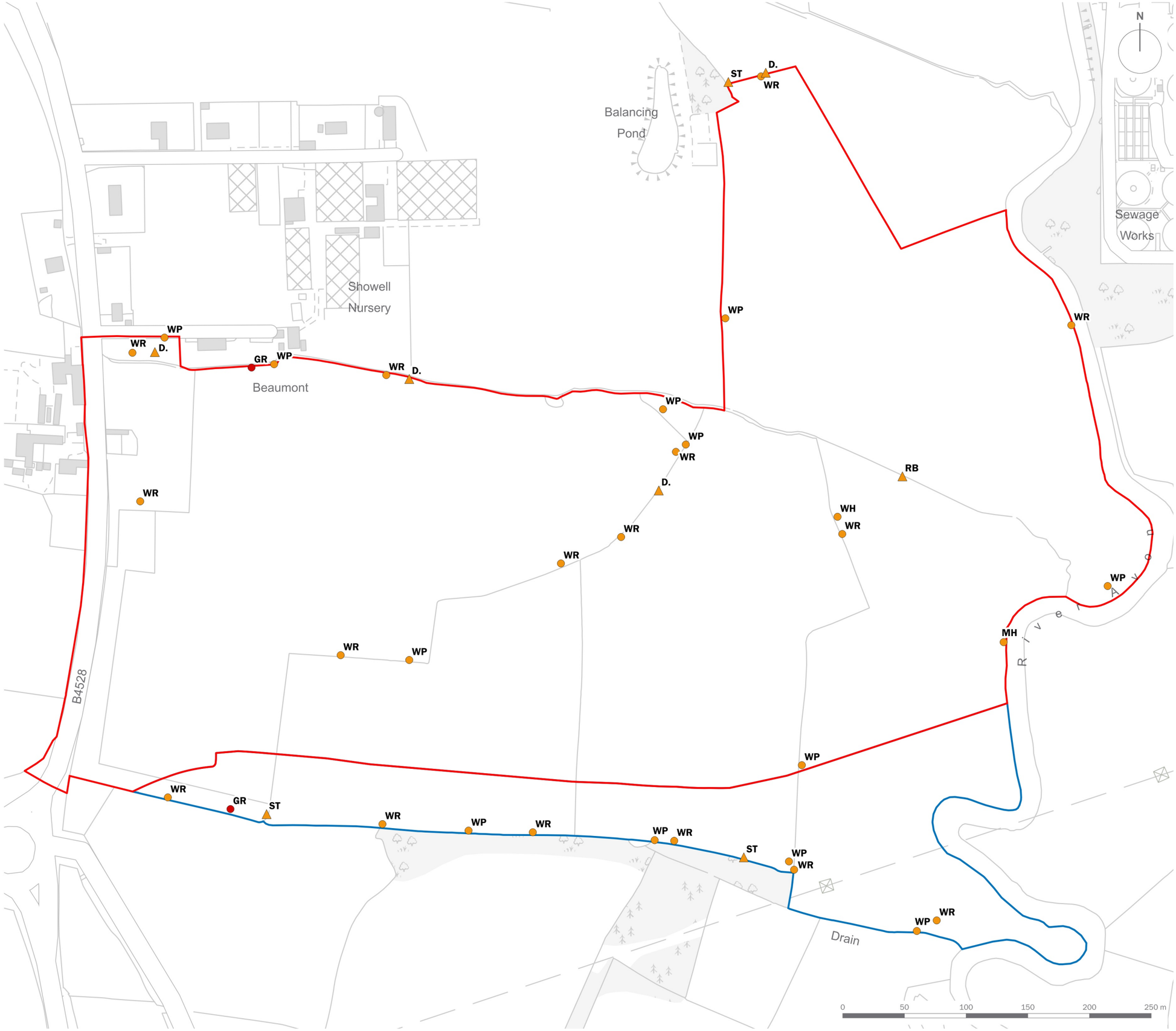
River Condition Assessment Survey

date	**30 APRIL 2026**	drawn by	**VMS**
drawing number	**edp2272_d077b**	checked	**PNe**
scale	**1:3,000 @ A3**	QA	**DJo**

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Site Boundary

Additional Survey Area

Conservation Status

Species of Principal Importance

Not Listed as Schedule 1 or SPI

Birds of Conservation Concern

Red List

Amber List

BTO Code	Common Name
D.	Dunnock
GR	Greenfinch
MH	Common Moorhen
RB	Reed Bunting
ST	Song Thrush
WH	Common Whitethroat
WP	Woodpigeon
WR	Wren

NB. Points shown are an indicative point within a bird's territory and not necessarily the exact breeding location.

client

Hallam Land

project title

Land East of Showell Farm, Chippenham

drawing title

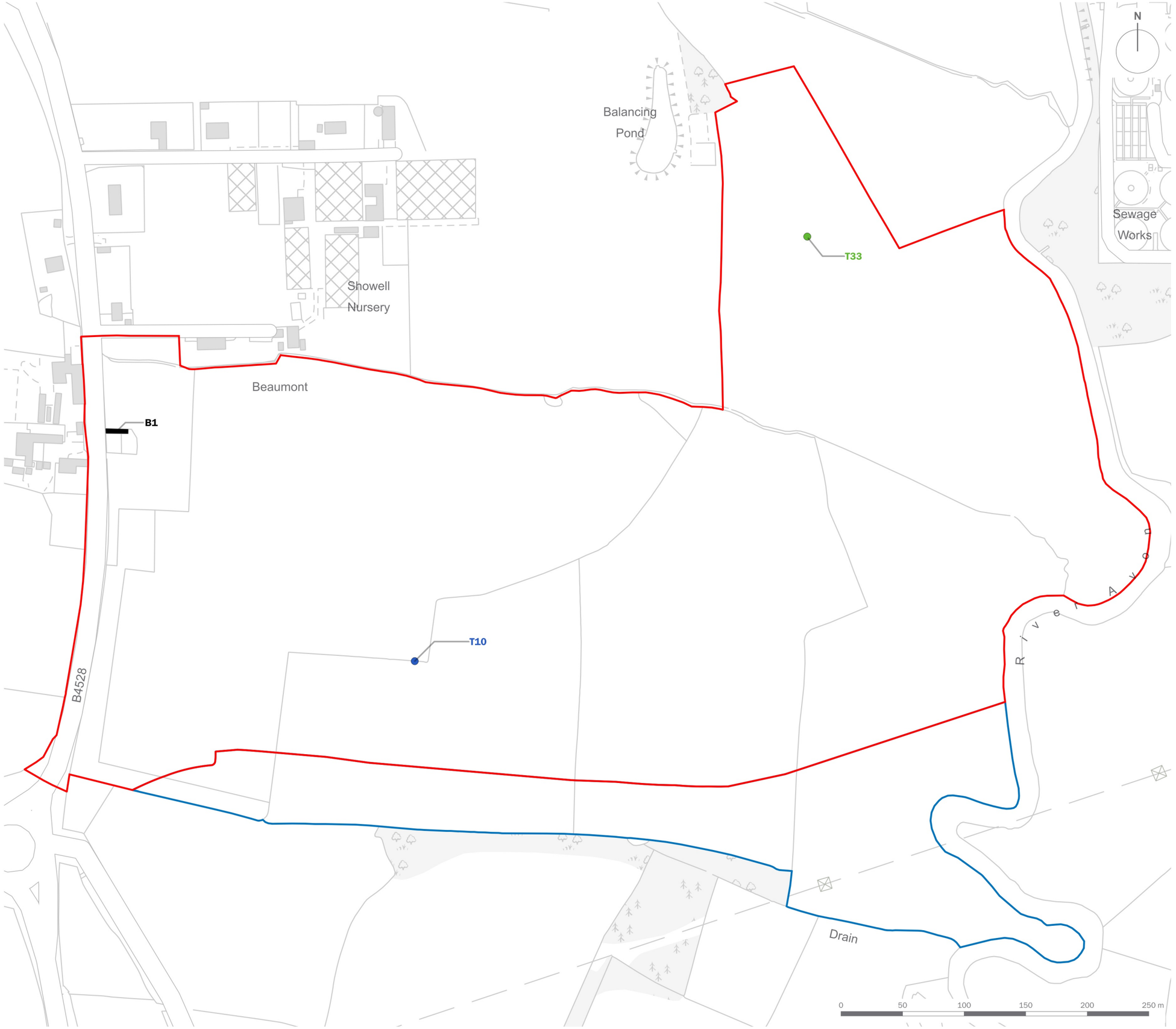
Breeding Bird Territory Map 2025

date	**30 APRIL 2026**	drawn by	**JLe**
drawing number	**edp2272_d080b**	checked	**SJM**
scale	**1:3,000 @ A3**	QA	**DJo**

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Site Boundary

Additional Survey Area

B1 Confirmed Building Roost – Barn Owl Pellets Found in January 2025

Barn Owl Tree Survey

Confirmed Roost

Potential Roost – Barn Owl Pellets found in April 2021

client

Hallam Land

project title

Land East of Showell Farm, Chippenham

drawing title

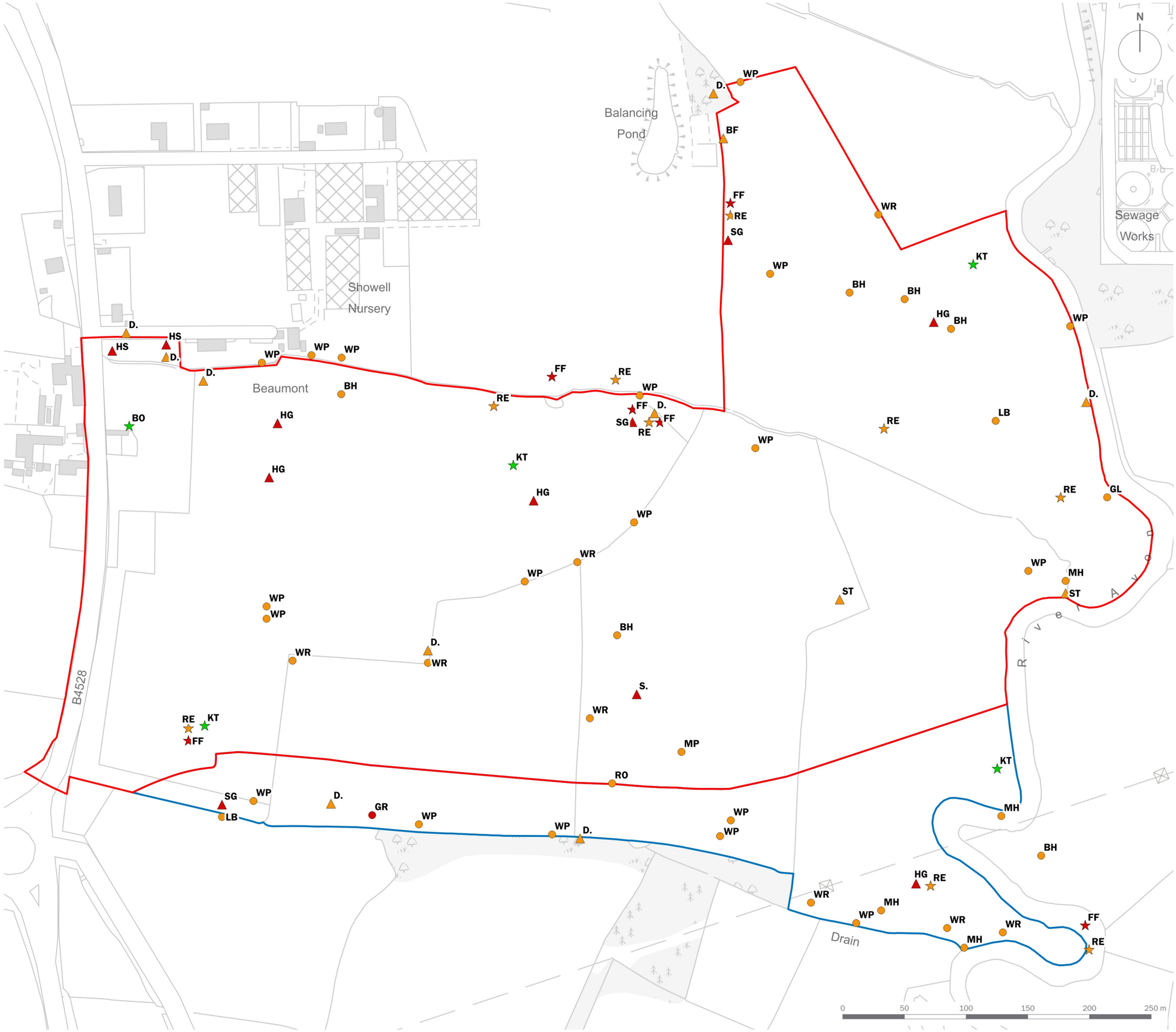
Barn Owl Plan

date	**30 APRIL 2026**	drawn by	**JLe**
drawing number	**edp2272_d079b**	checked	**SJM**
scale	**1:3,000 @ A3**	QA	**DJo**

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Site Boundary

Additional Survey Area

Conservation Status

Schedule 1

Species of Principal Importance

Not Listed as Schedule 1 or SPI

Birds of Conservation Concern

Red List

Amber List

Green List

BTO Code	Common Name
BF	Bullfinch
BH	Black-headed Gull
BO	Barn Owl
D.	Dunnock
FF	Fieldfare
GL	Grey Wagtail
GR	Greenfinch
HG	Herring Gull
HS	House Sparrow
KT	Red Kite
LB	Lesser Black-backed Gull
MH	Common Moorhen
MP	Meadow Pipit
RE	Redwing
RO	Rook

NB. Points shown are an indicative point within a bird's territory and not necessarily the exact breeding location.

client

Hallam Land

project title

Land East of Showell Farm, Chippenham

drawing title

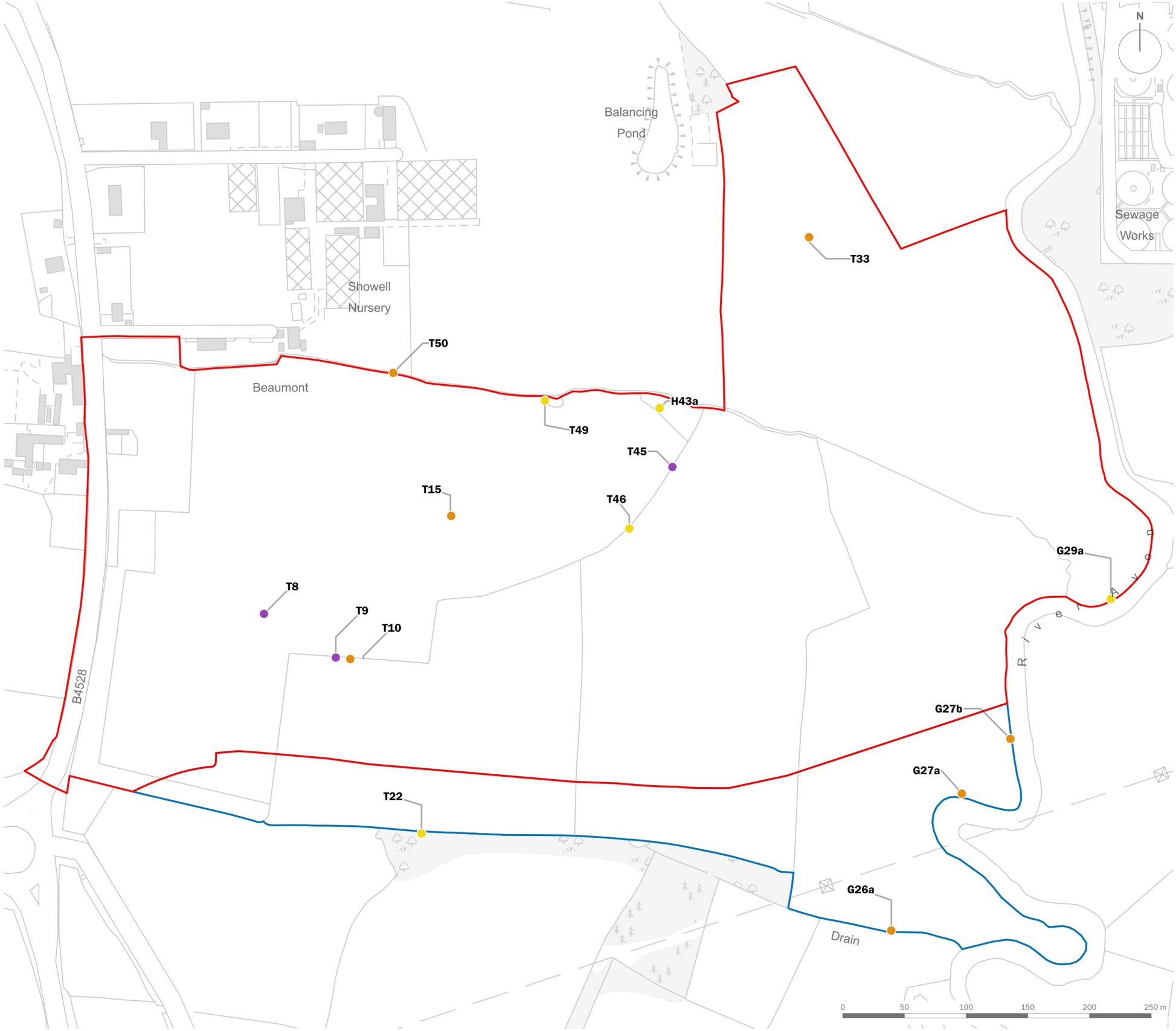
Winter Bird Surveys – 2024 to 2025

date	30 APRIL 2026	drawn by	JLe
drawing number	edp2272_d078b	checked	SJM
scale	1:3,000 @ A3	QA	DJo

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Site Boundary

Additional Survey Area

Ground Level Tree Assessment (GLTA)

Potential Roost Feature - For Multiple Bats (Estimated PRF-M)

Potential Roost Feature - For Individual Bats (Estimated PRF-I)

Further Assessment Required (FAR)

T1/G1a Tree Reference

Potential roost feature (PRF) type estimated from the ground. A close inspection survey of any trees to be affected would be required to confirm PRF type. PRF shown is the maximum level for any PRF on a tree.

client

Hallam Land

project title

Land East of Showell Farm, Chippenham

drawing title

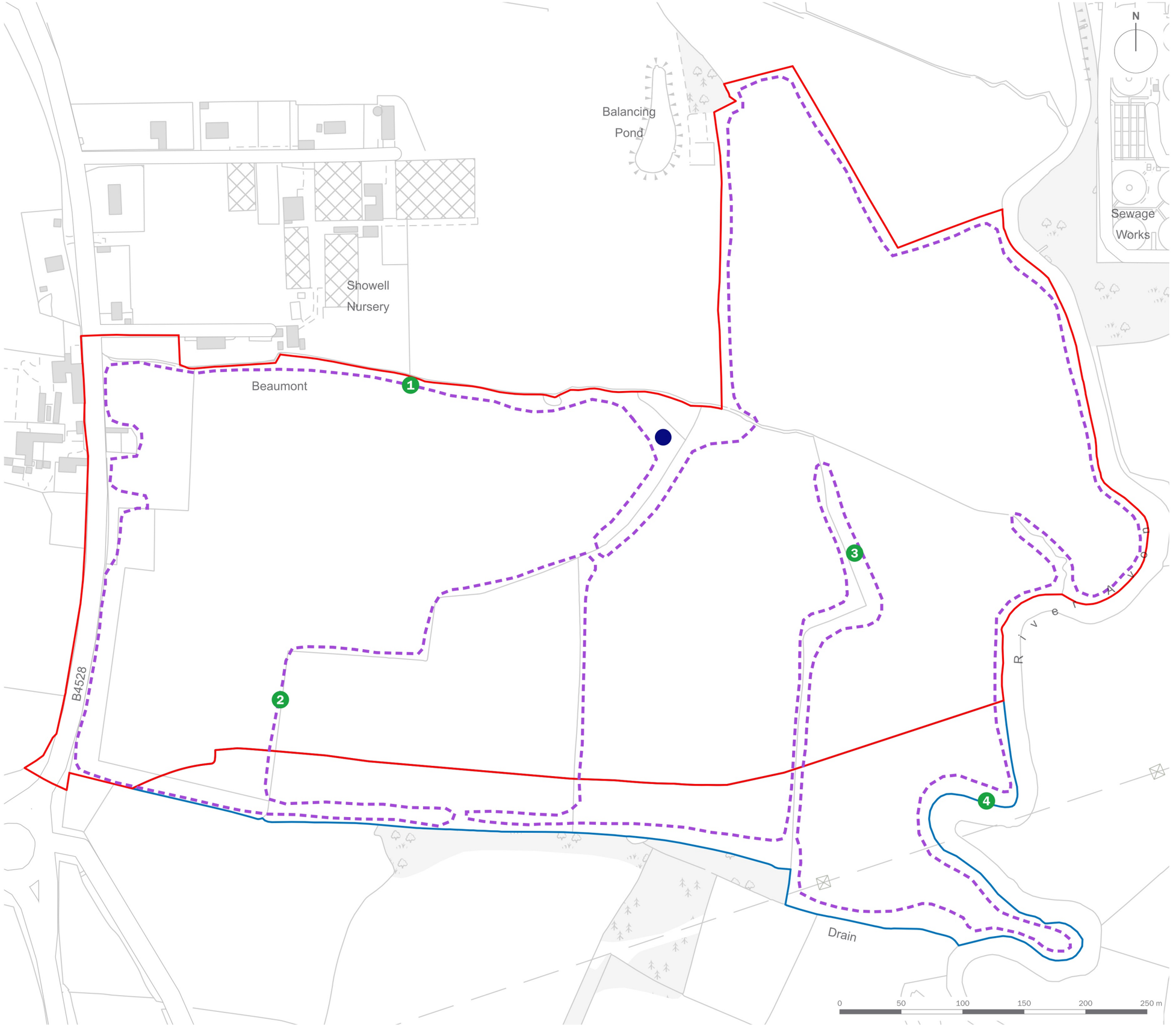
Ground Level Tree Assessment for Bat Roosts

date	**30 APRIL 2026**	drawn by	**VMS**
drawing number	**edp2272_d071b**	checked	**PNe**
scale	**1:3,000 @ A3**	QA	**DJo**

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Site Boundary

Additional Survey Area

Transect Route

1 Automated Detector Location

Stationary Observation Point

client

Hallam Land

project title

Land East of Showell Farm, Chippenham

drawing title

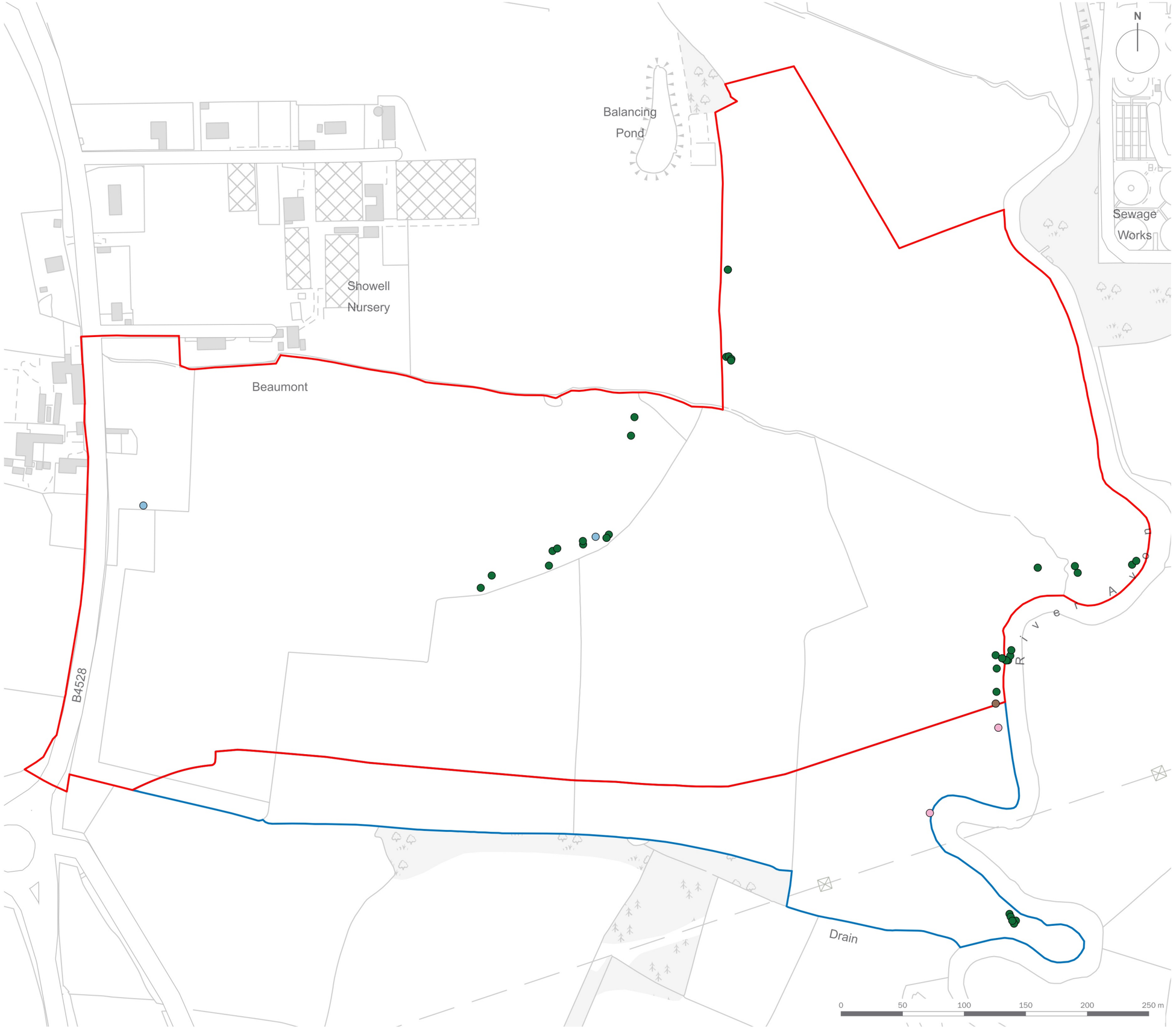
Automated Detector Locations and NBW Transect Route

date	**30 APRIL 2026**	drawn by	**JGr**
drawing number	**edp2272_d062b**	checked	**EEa**
scale	**1:3,000 @ A3**	QA	**DJo**

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Site Boundary

Additional Survey Area

Common Pipistrelle

Soprano Pipistrelle

Myotis spp.

Serotine

client

Hallam Land

project title

Land East of Showell Farm, Chippenham

drawing title

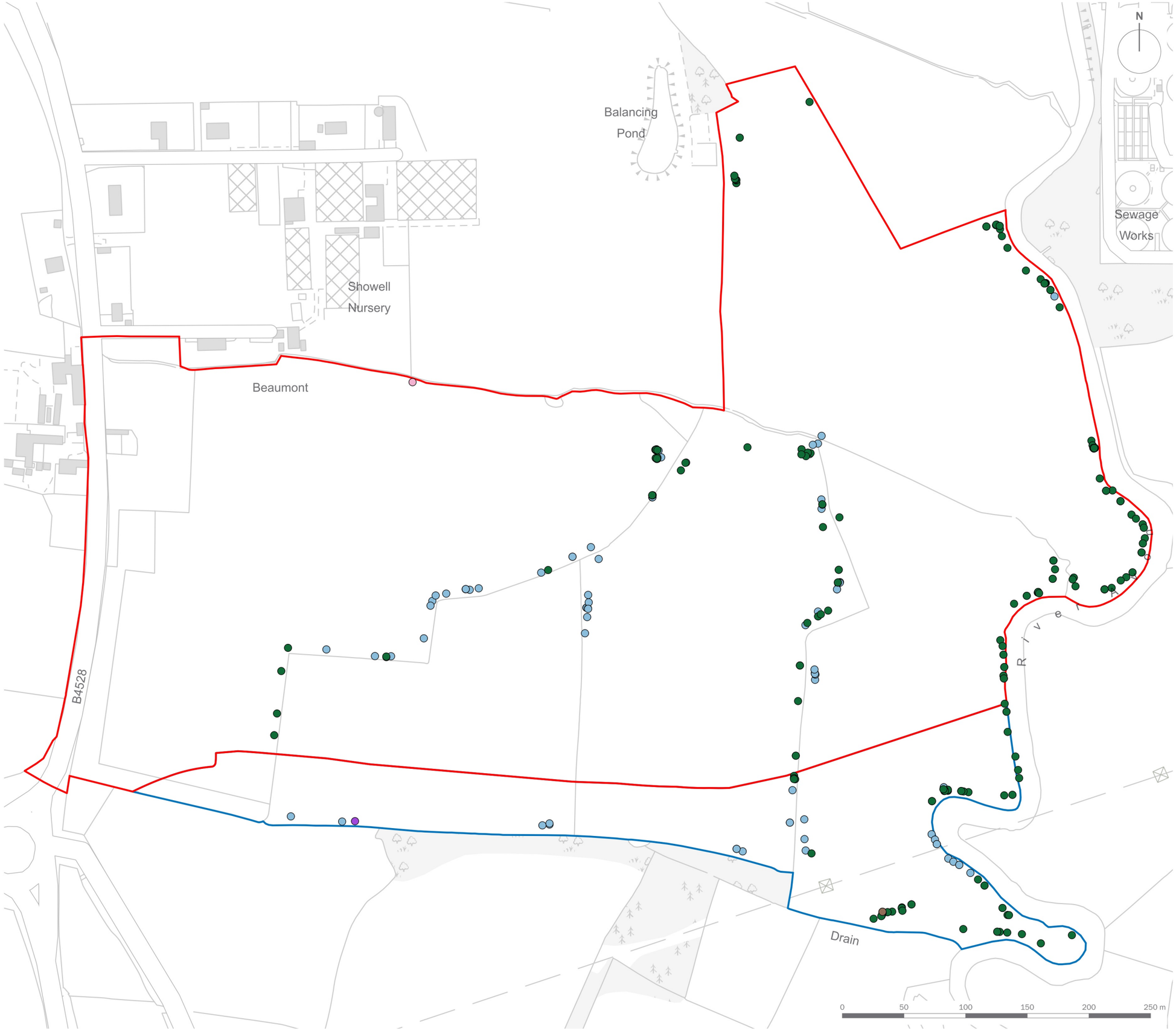
Bat NBW Survey Results – October 2024

date	**30 APRIL 2026**	drawn by	**JGr**
drawing number	**edp2272_d063b**	checked	**EEa**
scale	**1:3,000 @ A3**	QA	**DJo**

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Site Boundary

Additional Survey Area

Common Pipistrelle

Soprano Pipistrelle

Myotis spp.

Serotine

Lesser Horseshoe

client

Hallam Land

project title

Land East of Showell Farm, Chippenham

drawing title

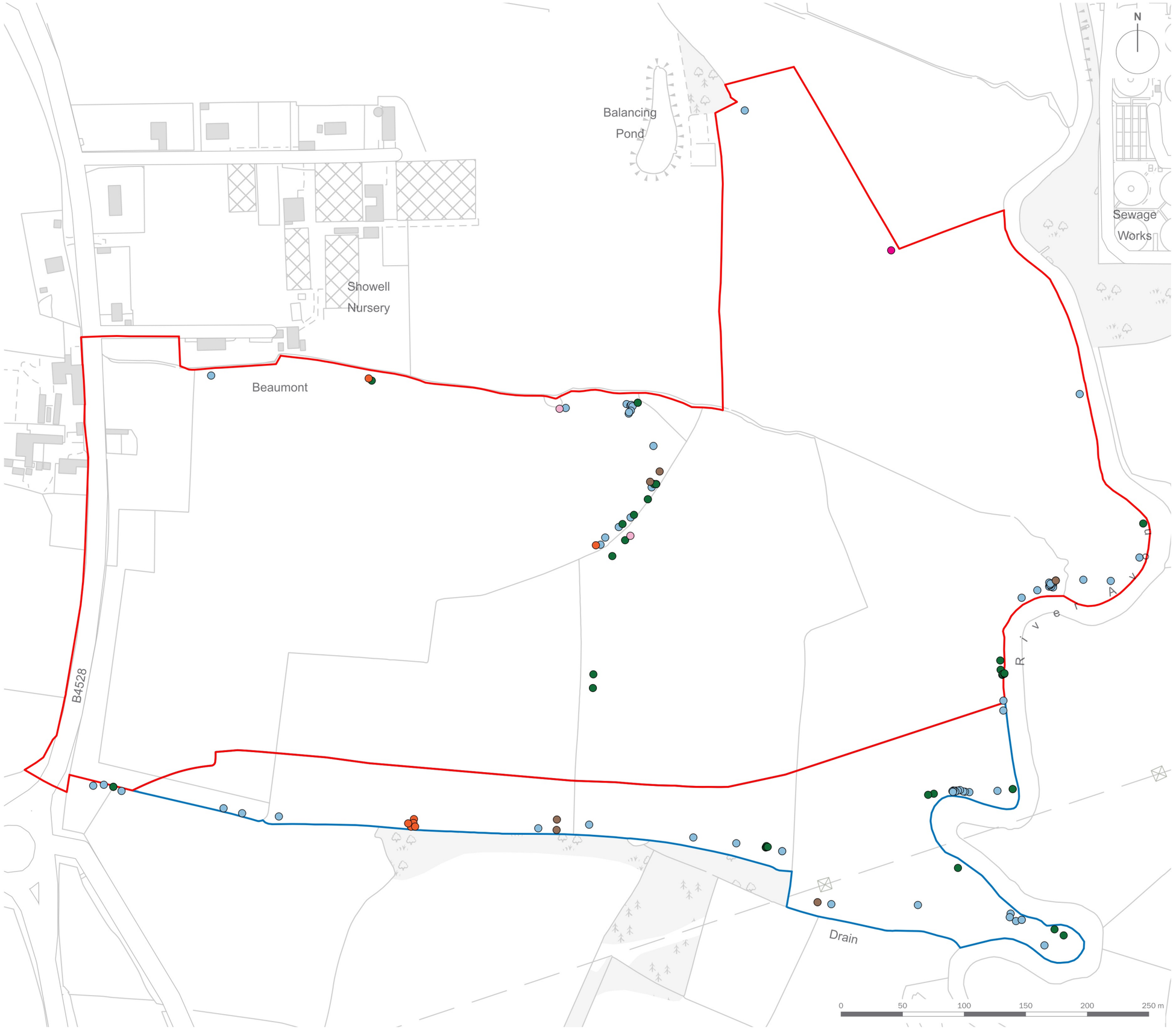
Bat NBW Survey Results – April 2025

date	**30 APRIL 2026**	drawn by	**JGr**
drawing number	**edp2272_d064b**	checked	**EEa**
scale	**1:3,000 @ A3**	QA	**DJo**

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Site Boundary

Additional Survey Area

Common Pipistrelle

Soprano Pipistrelle

Myotis spp.

Noctule

Serotine

Greater Horseshoe

client

Hallam Land

project title

Land East of Showell Farm, Chippenham

drawing title

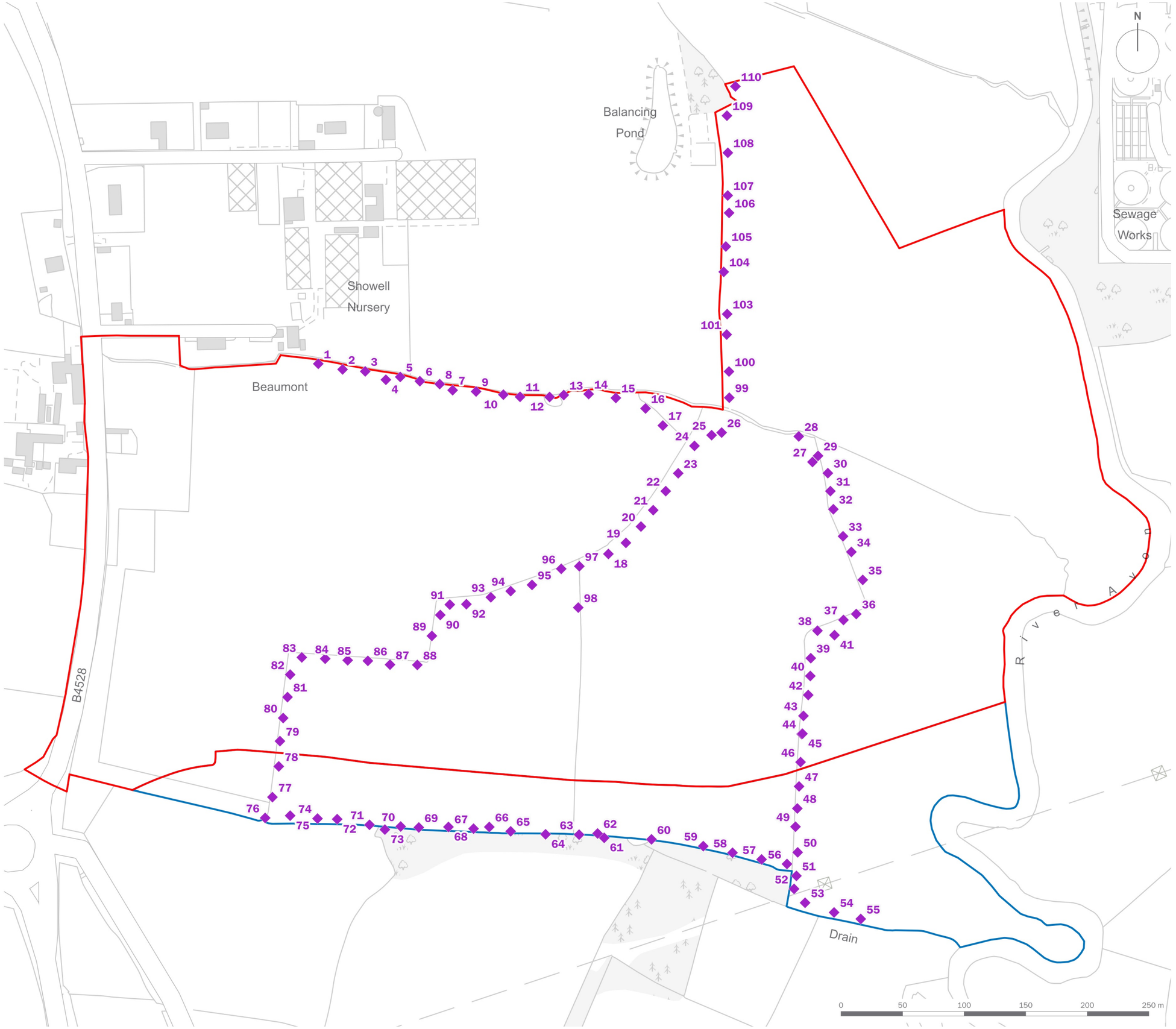
Bat NBW Survey Results – June 2025

date	**30 APRIL 2026**	drawn by	**JGr**
drawing number	**edp2272_d065b**	checked	**EEa**
scale	**1:3,000 @ A3**	QA	**DJo**

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Site Boundary

Additional Survey Area

Dormouse Tube- No Evidence Recorded

client

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project title

Land East of Showell Farm, Chippenham

drawing title

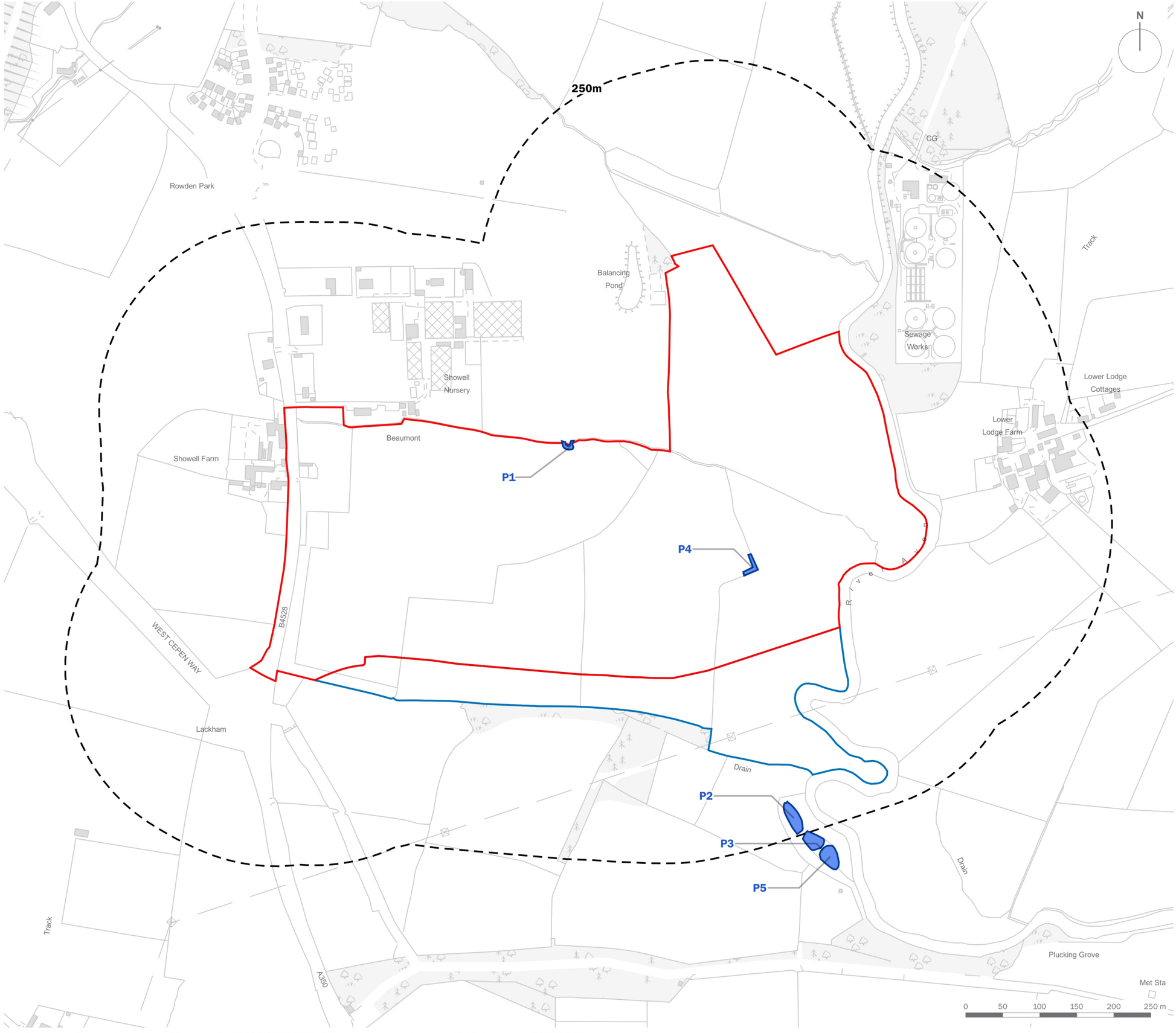
Dormouse Survey

date	**30 APRIL 2026**	drawn by	**VMS**
drawing number	**edp2272_d074b**	checked	**PNe**
scale	**1:3,000 @ A3**	QA	**DJo**

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client

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Land East of Showell Farm, Chippenham

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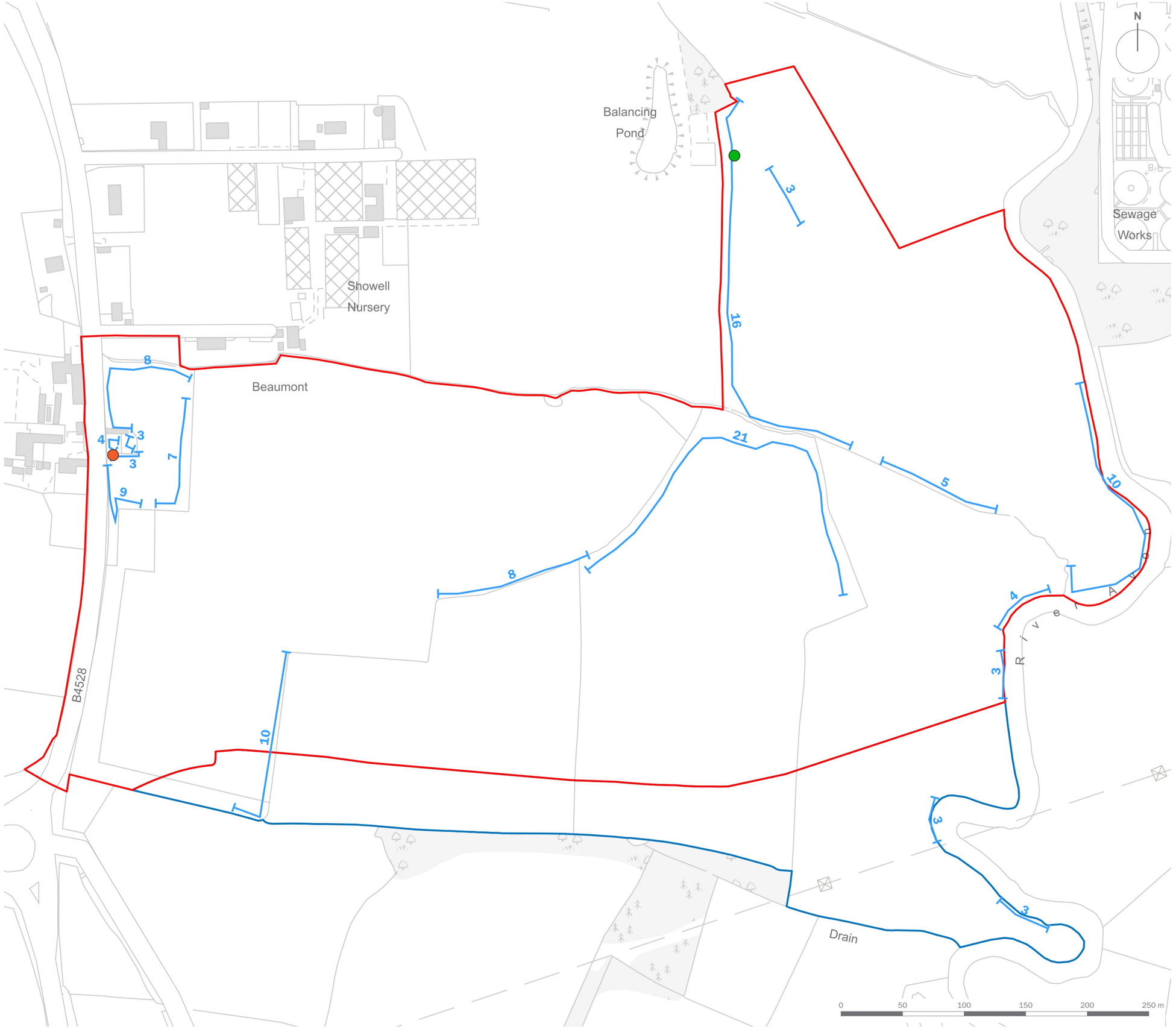
Great Crested Newt Survey

date	**20 MARCH 2026**	drawn by	**VMS**
drawing number	**edp2272_d049c**	checked	**SJM**
scale	**1:5,000 @ A3**	QA	**DJo**

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Site Boundary

Additional Survey Area

10 Reptile Mat Location

Female Slow Worm Recorded in 2025

Juvenile Grass Snake Recorded in 2021

client

Hallam Land

project title

Land East of Showell Farm, Chippenham

drawing title

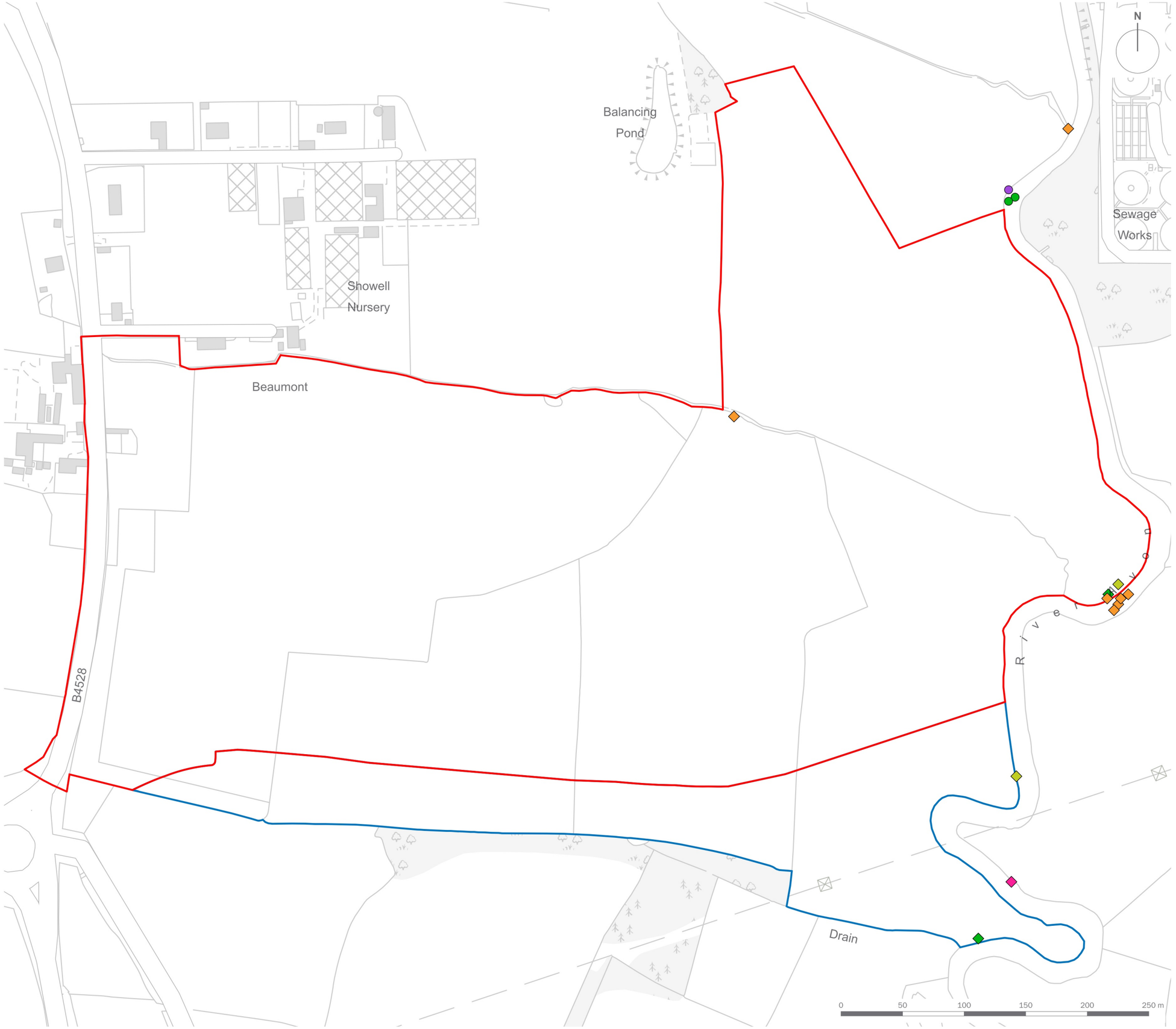
Reptile Survey

date	**24 APRIL 2026**	drawn by	**VMS**
drawing number	**edp2272_d073b**	checked	**PNe**
scale	**1:3,000 @ A3**	QA	**DJo**

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Site Boundary

Additional Survey Area

Otter Feeding Sign

Otter Spraint - Fresh

Otter Spraint - Old

Potential Otter Holt

Beaver Feeding Sign

Beaver Foraging Sign

No definitive evidence of Water Vole recorded on site.

client

Hallam Land

project title

Land East of Showell Farm, Chippenham

drawing title

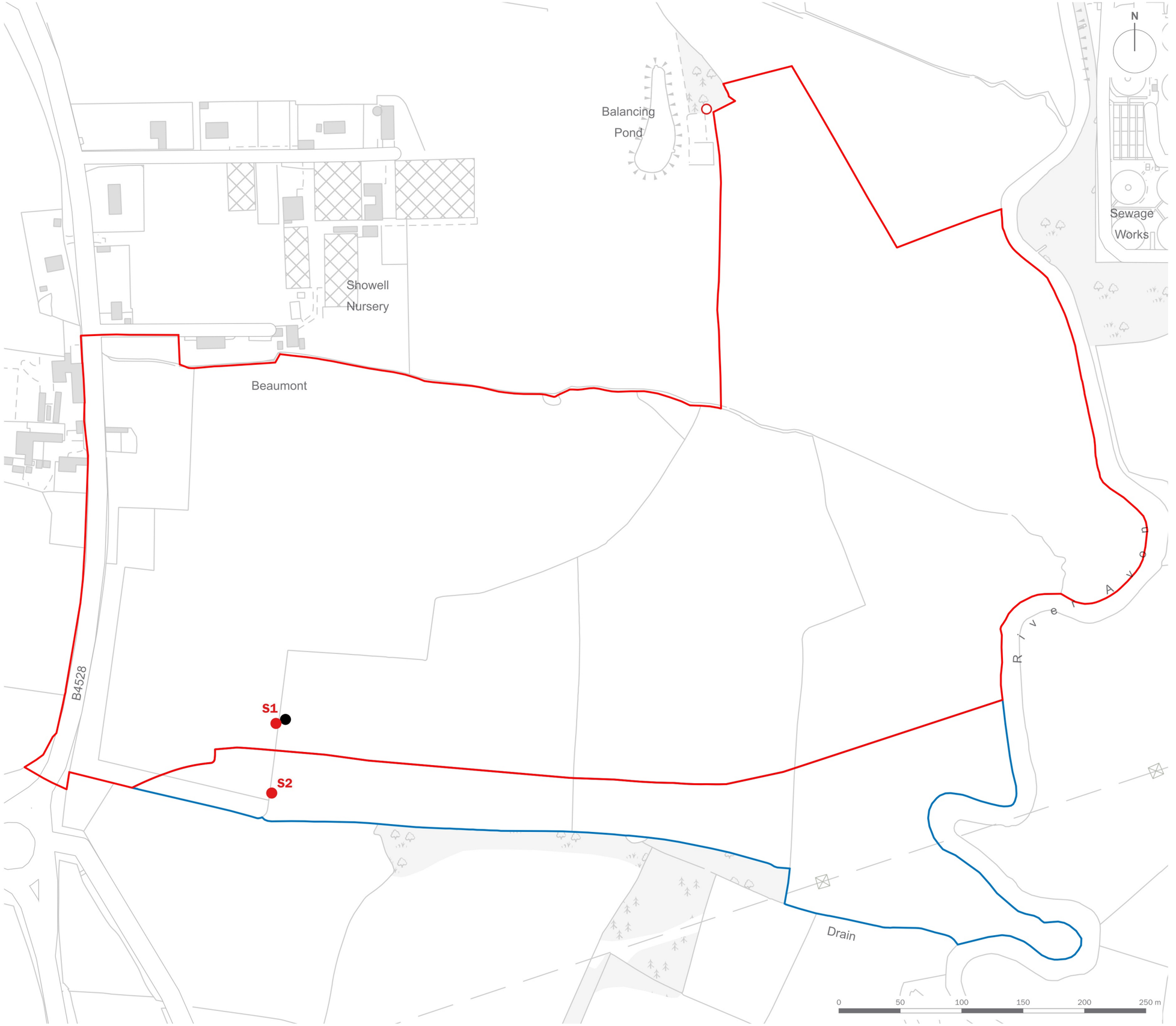
Otter, Water Vole and Beaver Survey

date	**30 APRIL 2026**	drawn by	**VMS**
drawing number	**edp2272_d069b**	checked	**PNe**
scale	**1:3,000 @ A3**	QA	**DJo**

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Site Boundary

Additional Survey Area

S1 Active Badger Sett

Badger Latrine

Off-site Badger Sett

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project title

Land East of Showell Farm, Chippenham

drawing title

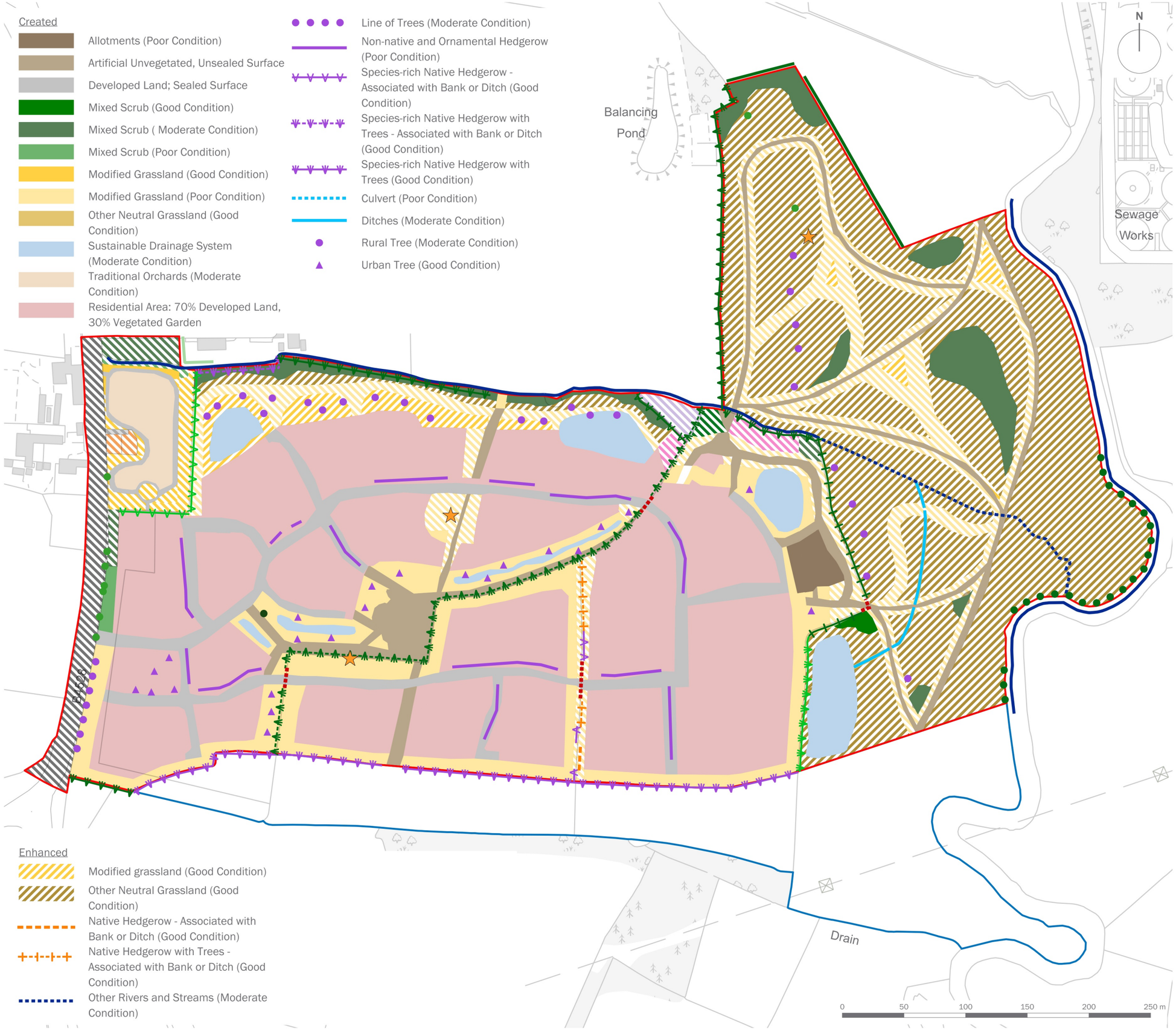
Badger Survey

date	**24 APRIL 2026**	drawn by	**VMS**
drawing number	**edp2272_d070b**	checked	**PNe**
scale	**1:3,000 @ A3**	QA	**DJo**

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Created

- Allotments (Poor Condition)
- Artificial Unvegetated, Unsealed Surface
- Developed Land; Sealed Surface
- Mixed Scrub (Good Condition)
- Mixed Scrub (Moderate Condition)
- Mixed Scrub (Poor Condition)
- Modified Grassland (Good Condition)
- Modified Grassland (Poor Condition)
- Other Neutral Grassland (Good Condition)
- Sustainable Drainage System (Moderate Condition)
- Traditional Orchards (Moderate Condition)
- Residential Area: 70% Developed Land, 30% Vegetated Garden
- Line of Trees (Moderate Condition)
- Non-native and Ornamental Hedgerow (Poor Condition)
- Species-rich Native Hedgerow - Associated with Bank or Ditch (Good Condition)
- Species-rich Native Hedgerow with Trees - Associated with Bank or Ditch (Good Condition)
- Species-rich Native Hedgerow with Trees (Good Condition)
- Culvert (Poor Condition)
- Ditches (Moderate Condition)
- Rural Tree (Moderate Condition)
- Urban Tree (Good Condition)

Enhanced

- Modified grassland (Good Condition)
- Other Neutral Grassland (Good Condition)
- Native Hedgerow - Associated with Bank or Ditch (Good Condition)
- Native Hedgerow with Trees - Associated with Bank or Ditch (Good Condition)
- Other Rivers and Streams (Moderate Condition)

- Site Boundary
- Additional Survey Area
- Lost Hedgerow

Retained

- Bramble Scrub
- Built Linear Features
- Developed Land; Sealed Surface
- Lowland Mixed Deciduous Woodland (Moderate Condition)
- Mixed Scrub (Poor Condition)
- Modified Grassland (Good Condition)
- Modified Grassland (Poor Condition)
- Reedbeds (Good Condition)
- Other Swamp (Moderate Condition)
- Tall Forbs (Good Condition)
- Line of Trees (Good Condition)
- Native Hedgerow (Poor Condition)
- Native Hedgerow - Associated with Bank or Ditch (Good Condition)
- Non-native and Ornamental Hedgerow (Poor Condition)
- Species-rich Native Hedgerow - Associated with Bank or Ditch (Good Condition)
- Species-rich Native Hedgerow (Good Condition)
- Species-rich Native Hedgerow (Moderate Condition)
- Species-rich Native Hedgerow with Trees - Associated with Bank or Ditch (Good Condition)
- Native Hedgerow with Trees (Good Condition)
- Native Hedgerow with Trees (Moderate Condition)
- Other Rivers and Streams (Fairly Poor Condition)
- Rural Tree (Good Condition)
- Rural Tree (Moderate Condition)
- Veteran Tree - Irreplaceable habitat

client

Hallam Land

project title

Land East of Showell Farm, Chippenham

drawing title

Proposed Habitats

date	**30 APRIL 2026**	drawn by	**VMS**
drawing number	**edp2272_d076a**	checked	**PNe**
scale	**1:3,000 @ A3**	QA	**DJo**

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