

Appendix 3: Methodology and Results

Data Search

- A3.1. A desk-based study was conducted whereby records of designated sites and records European Protected Species (EPS) licences were interrogated for the site and the surrounding landscape.
- A3.2. The following resources were consulted/contacted:
- Multi-Agency Geographic Information for the countryside (MAGIC) website¹⁴;
 - Wiltshire Council website¹⁵;
 - Joint Nature Conservation Committee (JNCC) website¹⁶;
 - Natural England (NE) designated sites website¹⁷;
 - Ordnance Survey mapping; and
 - Google Maps, including aerial photography.
- A3.3. The following areas of search around the boundary of the site boundary were applied:
- 2 km for granted European Protected Species (EPS) licences, national statutory designated and non-statutory sites; and
 - 10 km for European statutory sites.

UKHabs Survey

- A3.4. A UKHabs survey was carried out on the 20th August 2026 by Lucy Billingham BSc, a suitably experienced ecologist and qualifying member of CIEEM. The methods used during the walkover survey broadly followed methods used in an 'extended' Phase I habitat survey¹⁸ and entailed recording the main plant species and classifying and mapping habitat types with reference to the Habitat Definitions provided by the UK Habitat Classification Working Group¹⁹.
- A3.5. Additionally, the habitats identified were evaluated for their potential to support legally protected and notable fauna species. Where access allowed, adjacent habitats were also considered in order to assess the site within the wider landscape and to provide information with which to assess possible impacts within the context of the site boundary.

¹⁴ <https://magic.defra.gov.uk/> [Accessed 04/02/2026]

¹⁵ <https://www.wiltshire.gov.uk/https://www.redbridge.gov.uk/planning-and-building/planning-policy/> [Accessed 10/02/2026]

¹⁶ <http://jncc.defra.gov.uk/ProtectedSites/> [Accessed 04/02/2026]

¹⁷ <https://designatedsites.naturalengland.org.uk/> [Accessed 04/02/2026]

¹⁸ Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. JNCC, Peterborough.

¹⁹ UKHab Ltd. (2023). UK Habitat Classification Version 2.0 (at <https://www.ukhab.org>)



A3.6. All habitats were assessed utilising the relevant condition criteria for the relevant habitat type under Defra's Statutory Biodiversity Metric, which included confirming 'pass' / 'fail' criteria taken from the UK Habitat/Phase 1 methodology where necessary.

Preliminary Bat Surveys

A3.7. The surveys followed standard methodologies set out in the Bat Mitigation Guidelines²⁰, the Bat Workers Manual²¹ and Bat Surveys for Professional Ecologists- Good Practice Guidelines 4th Edition²² and comprised:

- Preliminary Roost Assessment (PRA) – External and internal building inspection survey to assess potential of buildings on site to support roosting bats;
- Ground Level Tree Assessment (GLTA) – Ground level inspection of trees to assess potential of trees on site to support roosting bats; and
- Day-time Bat Walkover (DBW) – Walkover of the sites to assess potential bat activity including foraging areas and potential commuting routes.

Preliminary Roost Assessment (PRA)

A3.8. A PRA was undertaken on all buildings within the Site boundary. The assessment was undertaken on 20th August 2025 by Lucy Billingham BSc, alongside Harry Williams BSc. All surveys were daytime inspections and the conditions for all surveys was considered optimal. The location of the buildings and trees at the site are shown on **Plan 18302/P01**. All buildings were inspected from the ground using binoculars for accessible features. In relation to buildings, such signs may include bat droppings, urine splashes, staining and features suitable for allowing bats access to roost (e.g. gaps behind soffits / hanging tiles / ridge tiles, lifted slates / flashing).

A3.9. The potential of the building and trees to support roosting bats was assessed using the criteria shown in **Table A3.1** below.

Table A3.1: Building / Structure Assessment Criteria - adapted from Collins, 2023.

Suitability	Description of Roosting Habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.

²⁰ Reason, P.F. and Wray, S. (2025). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.

²¹ Mitchell-Jones, A.J. & McLeish, A.P. (eds). (2004) 3rd Edition Bat Workers' Manual., JNCC, Peterborough, ISBN 1 86107 558 8

²² Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition). The Bat Conservation Trust, London. ISBN-978-1-7395126-0-6



Suitability	Description of Roosting Habitats
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^b and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats ^c).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^b and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed)
High	A 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 ^b and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.
^a Negligible is defined as ‘so small or unimportant as to be not worth considering, insignificant’. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute). ^b For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance. ^c Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments. Common pipistrelle swarming has been observed in the UK and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland. This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.	

A3.10. Results of the PRA are shown in **Section 2** of this report.

Ground Level Tree Assessment (GLTA)

A3.11. A GLTA was undertaken on all trees within the site boundary. The assessment was undertaken on 20th August 2025 by Lucy Billingham BSc alongside Harry Williams BSc. All surveys were daytime inspections and the conditions for all surveys was considered optimal. The location of the trees at the site are shown on **Plan 18302/P01**. All trees were inspected from the ground using binoculars, high powered torch, digital camera and endoscope for accessible features. Potential Roosting Features (PRFs) of interest include are detailed in **Table A3.2** below.



Table A3.2: PRF Types that can be Exploited by Bats and how they Form - adapted from Collins, 2023.

PRFs formed by disease and decay	PRFs formed by damage	PRFs formed by association
Woodpecker Holes Squirrel Holes Knot Holes Pruning Cuts Tear Outs Wounds Cankers Compression Forks Butt Rots	Lightning Strikes Hazard Beams Subsidence Cracks Shearing Cracks Transverse Snaps Welds Lifting Bark Desiccation Fissures Frost Cracks	Fluting Ivy

A3.12. The potential of trees to support roosting bats was assessed using the criteria shown in **Table A3.3** below.

Table A3.3: Assessment of Tree Suitability Criteria - adapted from Collins, 2023.

Roost Suitability	Description of Roosting Habitat
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present

Day-time Bat Walkover (DBW)

A3.13. A DBW was undertaken on all habitats within the Site boundary. The assessment was undertaken on 20th August 2025 by Lucy Billingham BSc, alongside Harry Williams BSc. All surveys were daytime inspections and the conditions for all surveys were considered optimal. The DBW assessed habitats on-site for the likelihood to be used by foraging and commuting bats as detailed in **Table A3.4** below. This combined with potential for roosting bats on-site is used to determine suitability of the site for bat activity.

Table A3.4: Flight Path and Foraging Habits Assessment Criteria - adapted from Collins, 2023.

Suitability	Description of Roosting Habitats
None	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	Habitat that could be used by small numbers of bats as flight-paths 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



Suitability	Description of Roosting Habitats
	bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths 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.
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths 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, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Biodiversity Net Gain

A3.14. The Statutory Biodiversity Metric operates by calculating the number of biodiversity units associated with a particular habitat type (both pre-and post-development) – the ‘unit’ value associated with each habitat type is calculated based on the following parameters:

- Size (in hectares)/Length (in km);
- Distinctiveness (i.e. how rare/valuable a given habitat is);
- Condition (i.e. how well the recorded habitat fits [or will fit] the standardised description of that habitat); and
- Strategic significance (i.e. if the existing or proposed habitat is within an area formally adopted in the local plan for green infrastructure or biodiversity improvements).

A3.15. When considering the creation of new habitats in the post-development site, other factors are also considered when calculating the ‘unit’ value of a given habitat and these are:

- Time to reach the target condition of each habitat; and
- Difficulty category for the creation of a given habitat.

A3.16. A calculation has been undertaken using the baseline habitats identified during habitat condition assessment survey, which was carried out on the 20th August 2025, alongside the ‘extended’ Phase 1 survey above. All surveys were carried out by Lucy Billingham BSc, a suitably experienced ecologist and qualifying member of CIEEM.



A3.17. The UK Habitat Classification was used to identify habitat types. Note that the calculation is completed separately for non-linear and linear habitats. Habitat areas entered into The Statutory Biodiversity Metric in hectares were rounded to two decimal places.

Evaluation

A3.18. The evaluation of habitats and species is defined in accordance with published guidance²³. The scale of importance of each ecological feature is assigned within a defined geographical context, namely international and European, national, regional, county, and local. Below these are features considered to be of negligible importance.

A3.19. Consideration will also be given to legally protected or controlled species which are 'important features' in the context of this assessment, for which mitigation measures are required to ensure legal compliance, regardless of their geographic scale of importance. Thus, it is possible for a feature of negligible ecological importance to be legally protected and hence require mitigation.

A3.20. Evaluation is based on various characteristics that can be used to identify ecological features likely to be important in terms of biodiversity. These include site designations (such as Sites of Species Scientific Interest (SSSIs), or for undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological feature. In terms of the latter, quality can refer to habitats (for instance if they are particularly diverse, or a good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats) or species populations or assemblages.

Impact Assessment

A3.21. The assessment of impacts identifies impacts and their effects as a result of the proposed development on important ecological features. This includes consideration of impacts at all relevant stages of the development, including construction and operation/occupation [include decommissioning and restoration, if relevant – it won't be for most projects]. The assessment includes reference to legislation and policy, and supplementary planning guidance where relevant.

Application of Mitigation Hierarchy

A3.22. Application of the mitigation hierarchy is fundamental to the ecological impact assessment process. This requires consideration of the following measures, in order of priority, for all potential impacts, to determine the most appropriate mitigation, compensation and enhancement strategy for the project. This is taken into account within **Section 3** of this report and set out below:

- Avoidance – measures to avoid harm to ecological features;
- Mitigation – measures to avoid or minimise potential impacts as part of the design or guaranteed by planning controls;

²³ CIEEM (2024) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.



- Compensation – measures required to offset significant residual negative effects following avoidance and mitigation; and
- Enhancement – measures over and above requirements for avoidance, mitigation and compensation to provide biodiversity net gain.



Plans:

Plan 1: Habitats Features Plan **18302/P01**

Plan 2: Post-Development Habitat Features Plan **18302/P02**

