



**Padel Court at
Basset Down Golf
Complex
Hay Lane
Swindon
SN4 9QW**

**Preliminary Ecological
Appraisal**

Luscinia Ecology
On behalf of
Padel4All Limited

Document Properties

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Chapter 1: Summary

- 1.1 This report will be submitted alongside a planning application for the *“the erection of two padel courts and associated parking”* at the Padel Court at Basset Down Golf Complex, Hay Lane, Swindon, SN4 9QW.
- 1.2 This report sets out a Preliminary Ecological Appraisal of the Proposed Development at the Site.
- 1.3 A data search and ecological surveys have been completed to determine the Proposed Development’s impact, inform the Proposed Development’s iterative design, and to ensure the required ecological mitigation and compensation is embedded into the Proposed Development’s design, or can be delivered via suitably worded planning conditions.
- 1.4 The Proposed Development avoids the loss of habitats of ecological importance as the Site is of negligible ecological importance. New landscaping and structural planting are proposed, and this includes native tree planting, native woodland planting, and new introduced shrub planting.
- 1.5 The ecological impacts, and associated mitigation and compensation, associated with the Proposed Development is as follows:
 - The implementation of reasonable avoidance and mitigation measures to avoid harm to great crested newt and other amphibians.
 - The implementation of precautionary measures at construction to protect badgers, bat flight-paths and foraging habitat, and hedgehogs.
- 1.6 The following enhancements will be provided within the Site:
 - One invertebrate box.
 - One hibernaculum
- 1.7 The Applicant is aware of, and has committed to, all the mitigation, compensation, and enhancement measures set out within this report.
- 1.8 Based on the results from the survey, context of the Site, and overall low ecological importance of the Site, this report is valid for a period of 18 months (i.e., the 19/12/26).



Chapter 2: Introduction

- 2.1 This report will be submitted alongside a planning application for the *“the erection of two padel courts and associated parking”* at the Padel Court at Basset Down Golf Complex, Hay Lane, Swindon, SN4 9QW. This report sets out a Preliminary Ecological Appraisal of the Proposed Development at the Site.

Site Description

- 2.2 The Site consists of an area of grassland, carparking and existing padel courts (referred to as ‘the Site’ throughout this report). The buildings have a curtilage of predominately hardstanding, with some scattered areas of managed grassland. The Site is approximately 0.38ha and is located at National Grid Reference: SU 11182 80823. The Site includes a hardstanding track which provides access from Hay Lane to the east. The Site is immediately surrounded by areas of managed grassland in active use as a golf course, along with an existing area of deciduous woodland to the south-east of the Site. The wider landscape is largely formed of farmland (**Figure 1**).



Figure 1: Aerial image – Site boundary in red line

Proposed Development

- 2.3 This report will be submitted alongside a planning application for the *“the erection of two padel courts and associated parking”* (referred to as the ‘Proposed Development’ throughout this report). Access will be via a track, which leads to Hay Lane to the east. The Proposed Development will result in the removal of the habitats within the Site and



replacement with buildings, hardstanding, individual trees and woodland. **Figure 2** shows the Proposed Development.

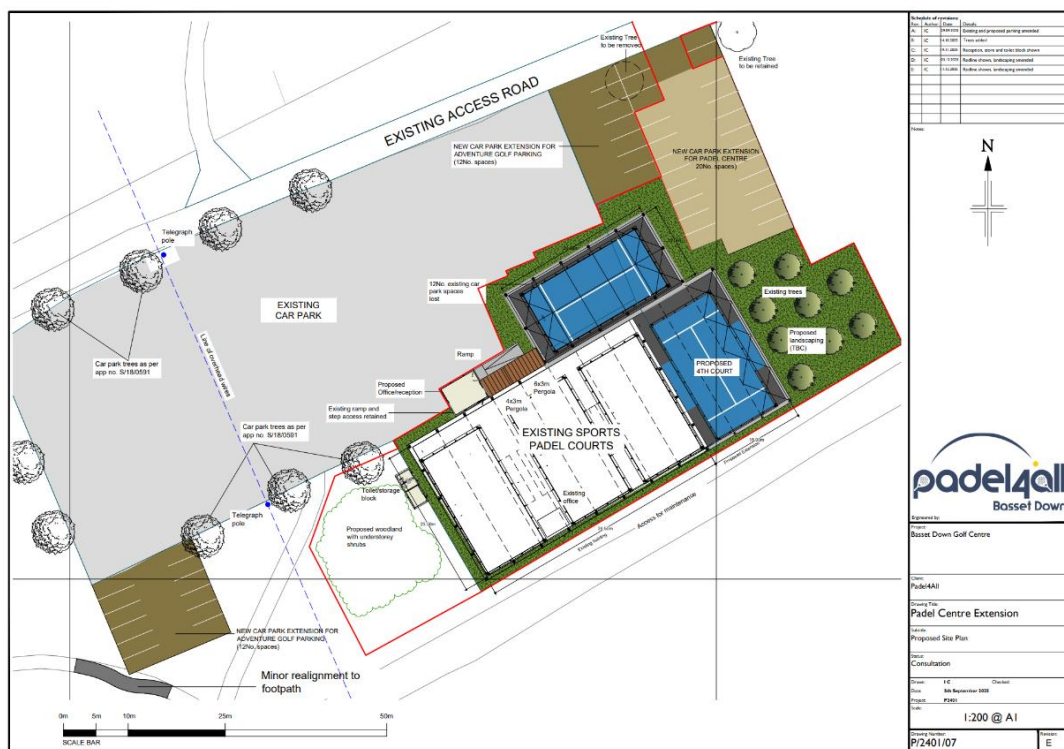


Figure 2: The Proposed Development

Purpose of this report

2.4 The purpose of this Preliminary Ecological Appraisal (PEA) is to provide sufficient information for the Local Planning Authority to fully assess and understand the ecological outcomes of the Proposed Development. The key objectives of this PEA are to:

- Outline the planning, legal, and landscape context of the Site.
- Ascertain the ecological importance of the Site by identifying and assessing the main habitats and plant communities within the Site and determining the presence/likely absence of protected species within the Site.
- Characterise and assess the ecological impacts/likely ecological impacts of the Proposed Development on the ecological features of the Site.
- Follow the Mitigation Hierarchy to:
 - Demonstrate how the design of the Proposed Development has been shaped and revised since inception to minimise ecological impacts/likely ecological impacts (avoidance).
 - Demonstrate the Proposed Development's commitment to mitigation, compensation, offsetting, and enhancement in relation to protected and priority habitats and protected, priority and notable species.



- Outline the requirements for future monitoring of ecological receptors, impacted/likely impacted by the Proposed Development as required.



Chapter 3: Method

- 3.1 This report was written with regard to the CIEEM Guidelines on: Ecological Report Writing¹, Preliminary Ecological Appraisal², and Ecological Impact Assessment³, as well as the British Standard on the Biodiversity Code of Practice for Planning and Development Biodiversity⁴ and Writing Effective Ecological Reports⁵.

Zone of Influence

- 3.2 The ecological impacts / likely ecological impacts of the Proposed Development will be largely confined to the construction zone within the Site itself and would include the loss, degradation, and fragmentation of habitats, along with ecological impacts (e.g., killing and injury) on protected, priority and notable species, including the loss of ecological functions such as (commuting, hibernation, breeding opportunities). In addition, consideration has been given to the following potential impacts, which may spread beyond the Site:

- Disruption to species and habitats within receiving range of dust, light, noise and pollution during demolition, construction, and occupation of the Proposed Development.

- 3.3 The surveys of the Site and search buffers used within the data search are sufficient to capture the full extent of the Zone of Influence (Zoi) of the Proposed Development.

Data Search

- 3.4 A review of existing ecological knowledge of the Site and its surrounding area was undertaken on 25/11/2025. The data search included the following:

- Statutory designated sites of international importance with known strategic strategies known to overlap the Site.
- A 2km radius around the Site for statutory designated sites⁶.
- A 1km radius around the Site for granted European Protected Species Licences (EPSL), great crested newt class survey licence returns, and great crested newt pond surveys 2017 - 2019⁶,
- A 1km data search from Wiltshire and Swindon Biological Records Centre (WSBRC) for protected and notable species and non-statutory designated sites⁷.

¹ CIEEM (2015). *Guidelines on Ecological Report Writing*. Chartered Institute for Ecology and Environmental Management, Winchester.

² CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal. 2nd Edition*. Chartered Institute for Ecology and Environmental Management, Winchester.

³ CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, and Coastal and Marine*. Chartered Institute for Ecology and Environmental Management, Winchester.

⁴ BSI (2013). BS 42020:2013: *Biodiversity: Code of Practice for Planning and Development*. British Standards Institution, Bristol.

⁵ Dean M. (2021). *Writing Effective Ecological Reports: A Guide to Principles and Practice*. Pelagic Publishing, Exeter.

⁶ Multi-Agency Geographic Information for the Countryside (MAGIC) maps For England and Wales. Available online at: <https://magic.defra.gov.uk/home.htm>

⁷ Wiltshire and Swindon Biological Records Centre (WSBRC), received 02/12/2025.



- An aerial 1km review the habitats within the local landscape, including the presence of ancient woodland and any Habitats of Principal Importance, along with their suitability to support protected and notable species using⁸.

Field Surveys

3.5 The following surveys were undertaken at the Site:

- Extended UK Habitat Classification Survey⁹
- Bats: Preliminary Roost Assessment (PRA)¹⁰
- Consideration of suitability for protected and notable species
- Incidental observations

3.6 The surveys were completed on 19/06/2025 by Greg Nightingale. A detailed method for each of the surveys listed above is presented within that **Appendix A**.

Contributor information

3.7 The surveys and assessments were designed and led by Greg Nightingale. The PEA was written by Mel Granato. Technical review of this assessment was undertaken by Greg Nightingale. **Table 1** outlines the relevant experience of the assessment contributors.

⁸ Google Earth. Available online at: <https://earth.google.com/web/>

⁹ UKHab Ltd (2023). *UK Habitat Classification Version 2.0*. UKHab Ltd, Stockport.

¹⁰ Collins, J. (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition)*. The Bat Conservation Trust, London.



Contributor	Experience
Greg Nightingale BSc (Hons) MCIEEM	Greg is the Director of Luscinia Ecology (A CIEEM Registered Practice) with over 11 years of experience in ecology and environmental management in the private sector. Greg has worked extensively within the planning system, undertaking protected species surveys, habitat surveys and Ecological Impact Assessments as well as providing advice on habitat management and mitigation and enhancement design. He has a comprehensive understanding of environmental policy and the current and emerging challenges facing the environment and how these challenges are managed within the planning sector. Through an understanding of good practice, planning policy, the ecology of protected habitats and species, and environmental impact pathways, Greg provides robust ecological advice that is cognisant of wider planning and legal requirements. He is experienced in UKHabs Classification system and the Phase 1 Habitat classification. He has designed, undertaken, and reported on numerous habitat and protected species surveys (including badger surveys, bat emergence/re-entry surveys, bat activity surveys, and hazel dormouse surveys), including bespoke survey design and the implementation of numerous protected species mitigation strategies. Greg is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). He holds a level two Bat Licence, a level one Great Crested Newt Licence, and a NPTC (CS38) Tree Climbing and Aerial Rescue qualification. In addition, he has been named on badger mitigation licences and has completed courses in barn owls, botany, breeding birds, and hazel dormouse.
Mel Granato BSc (Hons) MSc Qualifying member of CIEEM	Mel is a Consultant Ecologist at Luscinia Ecology, having graduated in 2023 with a degree in Conservation Ecology. Mel has two publications, one of which can be found in the Journal Insects (Granato <i>et al.</i>, 2024), and one in the Journal World (Granato <i>et al.</i>, 2025). Mel has practical experience and theoretical knowledge with bat, reptile, great crested newt and breeding bird surveys, technical report writing, UK Hab classification systems, biodiversity net gain metrics and QGIS. Mel is a Qualifying Member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Mel is actively working towards gaining a level 2 bat licence and level 1 great crested newt licence.

Table 1: Contributor experience

Assumptions, Clarifications, and Limitations

Assumptions

3.8 None.

Clarifications

3.9 A reduced data search was undertaken to inform this assessment. This was reasoned as follows:



- Any further extension of the data search would be unlikely to provide information needed to inform the assessment due to the scale and location of the Proposed Development.
- The Proposed Development relates to works to a single property / structure, with no other impacts likely. Therefore, no data search / a bats only data search, was undertaken.

3.10 This is in line with CIEEM's Guidelines for accessing, using & sharing biodiversity data in the UK¹¹

Limitations

3.11 Limitations associated with the survey work, data analysis, and reporting are set out within **Table 2**, along with an analysis of the effect of the limitation on the validity and robustness of the decision making within this report.

Limitation	Analysis of effect
The desk study does not produce a comprehensive list of plants and animals as this is limited by factors that influence their presence (e.g., activity and dormancy periods), along with varied recording effort across the landscape.	The species records of the desk study reflect survey effort and therefore the data returned from each request is variable across the UK. As a result, the data search data has not been used to rule out the presence of protected species and habitats within and adjacent to the Site.
Measurements within this report are approximate – The mapping of baseline habitats and Proposed Development plans has relied upon the georeferencing of plans provided by the client.	The mapping of baseline habitats and Proposed Development plans has relied upon the georeferencing of plans provided by the project team. The process of georeferencing and mapping of polygon habitats at a fine scale may result in minor deviations from actual and proposed measurements. This has been controlled for via the use of advanced digitising tools and given the scale of the proposals any deviations in spatial areas or point locations are sufficiently minor to be inconsequential and will be subsumed within precautionary rounding.

Table 2: Summary of limitations and their effect

¹¹ CIEEM (2023). *Guidelines for accessing & using & sharing biodiversity data in the UK*. Chartered Institute for Ecology and Environmental Management, Winchester.



Chapter 4: Results and Assessment

Data Search

The Local Landscape Context

- 4.1 The Site is immediately surrounded by areas of managed grassland in active use as a golf course, along with an existing area of deciduous woodland to the south-east of the Site. The wider landscape is largely formed of farmland. The key green infrastructure within the local landscape includes woodland, scrub, and a hedgerow network. The key blue infrastructure in the local area includes the Wilts and Berks Canal 1.2km to the north-west of the Site.

Statutory Designated Sites

- 4.2 Statutory designated sites are significant ecological receptors and include Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites (of **International Importance**), and Special Scientific Interest (SSSIs; of **National Importance**).
- 4.3 Local Nature Reserves (LNRs) are notified under Section 21 of the National Parks and Access to the Countryside Act 1949 (as amended) by local authorities and are of **Local Importance**. They are intended for public appreciation and enjoyment of wildlife. The LNR designation does not afford special protection; however, LNRs are protected under legislation and planning policy.
- 4.4 The statutory designated sites within returned by the desk study are shown in **Table 3¹²**.

Site Name	Reason for designation	Distance and direction
Bincknoll Dip Woods SSSI	The site is designated for its lowland broadleaved, mixed and yew woodland interest	1.2 km north

Table 3: Summary of statutory designated sites returned by the desk study

Non-Statutory Designated Sites

- 4.5 In Wiltshire, Local Wildlife Sites (LWSs) and Protected Road Verges (PRVs) are designated. LWSs and PRVs are of **Local Importance**.
- 4.6 There were no non-statutory designated sites within 1km returned by the desk study.
- 4.7 Non-statutory sites will not be discussed further in this report.

¹² Any SSSIs solely designated for their earth heritage or geological value are not shown within this table.



Protected and Notable Species

- 4.8 The results of the protected and notable species data search are incorporated into the relevant Protected and Notable Species sections, below.

Habitat Survey

- 4.9 An Extended UK Habitat Classification Plan was produced (**Appendix B**). The Site was comprised of the following habitats:

- **Grassland:** Modified grassland
- **Urban:** Artificial unvegetated, unsealed surface
- **Urban:** Developed land; sealed surface

Grassland: Modified grassland

- 4.10 There were two small parcels of modified grassland, managed as part of the wider golf course. The parcels were located in the east of the Site (**G1**) and in the west of the Site (**G2**). Dominant species within **G1** and **G2** were perennial rye grass *Lolium perenne* and scattered annual meadow grass *Poa annua*. Other species present included broadleaved dock *Rumex obtusifolius*, creeping buttercup *Ranunculus repens*, daisy *Bellis perennis*, false oat grass *Arrhenatherum elatius*, red clover *Trifolium pratense* and white clover *Trifolium repens*. The **modified grassland** was of **Negligible Importance**.



Photograph 1. Modified grassland; G1



Urban: Developed land; sealed surface

Buildings

There was one building within the Site (**B1**). **B1** was a single storey structure, which was predominantly built of a metal frame overlayed with a nylon/polyester waterproof fabric with a curtain design on the eastern elevation to allow airflow (**Photograph 2**). The structure housed three padel courts which are in active use. The **building** was of **Negligible Importance**. The importance of the buildings in relation to bats and birds is discussed within the Protected and Notable Species section below.



Photograph 2. B1; padel courts

Hardstanding

- 4.11 Hardstanding, in the form of concrete, and paving occupied approximately 40% of the Site (**Photographs 3**). The areas formed the entrance to the Site, the track to the Site, the curtilage to the building and car parking. The **hardstanding** was of **Negligible Importance**.





Photograph 3. Car parking

Urban: Artificial unvegetated; unsealed surface

- 4.12 A small strip of loose stones was located between the southern elevation of **B1** and the southern boundary of the Site. The **artificial unvegetated; unsealed surface** was of **Negligible Importance**.

Protected and Notable Species

- 4.13 Based upon the nature, location, and characteristics of the Site and adjoining landscape, the suitability of the Site to support the following species/species groups is outlined below:
- Amphibians, including great crested newt *Triturus cristatus*
 - Badgers *Meles meles*
 - Bats
 - Birds
 - Hedgehog *Erinaceus europaeus*
- 4.14 If a species or species group is not listed above, then it has been scoped out of this assessment based upon the nature, location, and characteristics of the Site and adjoining landscape.



Amphibians

Data search

- 4.15 There were four great crested newt class survey licence returns and one positive great crested newt pond surveys (2017 – 2019) within 1km of the Site:
- Great crested newts present (2014) located west of Horseshoe Copse, 0.4km to the north-east of the Site (Grid reference: SU11398130)
 - Great crested newts present (2014) located west of Horseshoe Copse, 0.5km to the north-east of the Site (Grid reference: SU11708120)
 - Great crested newts present (2014) located south of Horseshoe Copse, 0.6km to the north-east of the Site (Grid reference: SU11798120)
 - Great crested newts present (2014) located east of Horseshoe Copse, 0.7km to the north-east of the Site (Grid reference: SU11908119)
 - Great crested newts present (2018) located north-east of Rofran House, 0.8km to the south-west of the Site (Grid reference: SU10528013)
- 4.16 WSBRC returned five records of great crested newt between 2011 – 2015. The closest of these records was located in Lower Basset Down Farm (Grid reference: SU 11708 80812), 0.4km to the east of the Site. No other records of amphibians were returned by the records centre.

Assessment

- 4.17 A review of aerial photography and OS Mapping confirmed that there were seven ponds within 250m of the Site and eleven ponds within 500m of the Site. The ponds within the local landscape included:
- **P1**, is a dry ditch located on a woodland edge, approximately 30m to the south-east of the Site (Grid reference: SU 11238 80829).
 - **P2**, is a ditch located along a hedgerow in the wider ownership of the Site, located approximately 75m to the west of the Site (Grid reference: SU 11055 80774).
 - **P3**, is a pond located within the wider ownership of the Site, approximately 80m to the west of the Site (Grid reference: SU 11033 80749).
 - **P4**, is a stream located east of Hay Lane, approximately 90m to the north of the Site (Grid references: SU 11288 81015).
 - **P5** and **P6**, are small ponds located east of Hay Lane, approximately 150 – 200m to the north of the Site (Grid reference: SU 11203 81282; SU 11184 81350).
 - **P7**, is a pond located in a field west of Lower Basset Down Farm, approximately 230m to the south of the Site (Grid reference: SU 11195 80533).
 - **P8 – P10** are a collection of ponds located in a field in the wider Basset Down Complex, approximately 330 – 450m to the south-west of the Site (Grid reference: SU 10876 80541; SU 10929 80506; SU 10915 80356).



- **P11**, is a pond located east of Hay Lane north of Lower Basset Down Farm, approximately 330m to the south-east of the Site (Grid reference: SU 11537 80712)
 - **P12 – P15**, are a collection of ponds located west of the golf course, approximately 260 – 420m to the north-west of the Site (Grid reference: SU 10898 80991; SU 10840 80980; SU 10805 81024; SU 10765 81058)
 - **P16**, is a pond located south of Lower Salthrop, approximately 340m to the north of the Site (Grid reference: SU 10963 81193)
 - **P17**, is a pond located in a field east of Hay Lane, approximately 300m to the east of the Site (Grid reference: SU 11466 81165)
 - **P18**, is a pond located in a field east of Hay Lane, approximately 380m to the east of the Site (Grid reference: SU 11472 81367)
- 4.18 There are breeding opportunities for amphibians adjacent to the Site. The Site is located within the commuting pathway between a network of waterbodies. Although the highly managed grassland within the Site is of low suitability for amphibians during their terrestrial phases, the hedgerows just outside the boundary provide suitable sheltering habitat, along with a ditch located 75m to the western boundary of the Site. It is understood that great crested newts are present within the ponds of the golf course¹³

4.19 The **amphibian interest** was of **Site Importance**.

Badgers

- 4.20 WSBRC returned 11 records of badger, all records were broadly located between Lower Basset Down and Lower Salthrop Cottages. The closest record was located in a woodland area 0.15km to the south-east of the Site.
- 4.21 WSBRC returned two records of badger setts both located in Lower Basset Down, specific locations of the setts are reduced due to sensitivity.
- 4.22 There was no direct evidence of badgers (setts, hairs, prints, latrines, etc.) within the Site. The wider 30m adjacent to the Site was also searched. No evidence of badgers was found within these areas. There were no mammal paths leading into or from the Site. It is expected that badgers are present within the wider landscape, likely within the woodland to the east, and therefore badgers could enter the Site in the future to forage or commute. Given the Site is predominantly buildings and modified grassland, it is considered unlikely that a badger sett would be established within the Site.
- 4.23 The **badger interest** was of **Site Importance** as a precaution.

¹³ Confirmed during a conversation with the landowner.



Bats

Data search

- 4.24 There were no granted EPSL for bats within 1km of the Site.
- 4.25 WSBRC returned three records of bats, including one noctule *Nyctalus noctula*, one serotine *Eptesicus serotinus* and one soprano pipistrelle *Pipistrellus pygmaeus*. All records were located in Quidhampton woods, 7.8km to the south-east of the Site (Grid reference: SU 11433 80008).
- 4.26 WSBRC returned two records of confirmed bat roosts, including brown long-eared *Plecotus auritus* (1998) and whiskered bat *Myotis mystacinus* (1993). Locations of these roosts are withheld due to sensitivity.

Preliminary Roost Assessment

- 4.27 There was one building within the Site (**B1**) as described above. **B1** was assessed to have **No (None) Suitability** to support bat roosts. This was due to the design and construction materials of the building, along with the complete lack of potential roost features.

Ground Level Tree Assessment

- 4.28 There were no mature trees within the Site. Bat roosts will not be discussed further in this report.

Flight-paths and Foraging Habitat

- 4.29 The Site supports a simple habitat structure formed of manmade habitats and poor-quality habitats. The Site is within close proximity to a priority deciduous woodland. The Site is immediately surrounded by areas of managed grassland in active use as a golf course, along with an existing area of deciduous woodland to the south-east of the Site. The wider landscape is largely formed of farmland. The key green infrastructure within the local landscape includes woodland, scrub, and a hedgerow network. The key blue infrastructure in the local area includes the Wilts and Berks Canal 1.2km to the north-west of the Site.
- 4.30 The wider landscape broadly aligns with High Suitability Flight-path and Foraging Habitat:

“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.”



- 4.31 The wider landscape connects to the Site via tree lines, hedgerows and woodland. It is expected that the bat assemblage uses the woodland and woodland edge as a flight-path and the wider area as foraging habitat. However, the Site itself is not expected to be a key flight-path or a key foraging habitat, as it comprises hardstanding and modified grassland.
- 4.32 The **habitat within the Site was assessed to be of Moderate Suitability for bat flight paths and foraging habitat** due to the adjacent habitats.

Nesting birds

- 4.33 WSBRC returned 33 records of birds including 11 species on the Schedule 1 protected species list, these species included: one barn owl *Tyto alba*, two fieldfare *Turdus pilaris*, two kingfisher *Alcedo atthis*, two red kite *Milvus milvus* and two redwing *Turdus iliacus*. All records of birds were broadly located between Lower Basset Down and Lower Salthrop Cottages.
- 4.34 The Site supported limited areas of vegetation, which comprised of regularly managed modified grassland, these areas have no suitability for nesting birds. No evidence of nesting birds was confirmed on Site. The adjacent vegetation to the south of the Site has suitability to support nesting birds.
- 4.35 The **nesting bird interest** was of **Site Importance** as a precaution.

Hedgehog

- 4.36 WSBRC returned four records of hedgehog, the closest of these records was located on Basset Down Road 0.4km to the south of the Site (Grid reference: SU 11453 80473). Majority of the records are within direct connectivity to the Site. One of the records was not directly connected to the Site due to major road fragmentation.
- 4.37 It is expected that hedgehogs could be present within the local area and may occasionally enter the Site to commute, forage, and rest. The ground did not provide sufficient cover or features for hedgehogs to use to hibernate. The vegetation to the south is suitable for hedgehogs to use to forage, commute, and possibly hibernate.
- 4.38 The **hedgehog interest** was of **Site Importance**.

Results Conclusion

- 4.39 A summary of the results is presented in **Table 4**. Where further consideration is required, this is addressed and resolved in the following chapters of this report.



Ecological Feature	Importance / Suitability*	Further consideration required?
Bincknoll Dip Woods SSSI	National	Yes
Grassland: Modified grassland	Negligible	No
Urban: Artificial unvegetated, unsealed surface		
Urban: Developed land; sealed surface		
Amphibians	Site	Yes
Badgers		
Bats: Roosts	No (None)*	No
Bats: Flightpaths and foraging habitat	Moderate*	Yes
Birds	Site	
Hedgehog		

Table 4: Summary of Results



Chapter 5: Discussion

- 5.1 This section of the report follows the mitigation hierarchy. The avoidance measures and the embedded mitigation are set out. Followed by additional mitigation measures to minimise impacts further and then compensation to address any remaining impacts. Lastly, ecological enhancements are provided.
- 5.2 The following discussion and assessment have been provided to ensure full compliance with legislation and both local and national planning policy set out in **Appendix C**.
- 5.3 This report is valid provided the plans shown in **Figure 2** do not change.
- 5.4 All details set out in this Chapter are deliverable with the Proposed Development and have been approved by the Applicant.

Avoidance and Embedded Mitigation

Using the design principles and layout within **Figure 2**, this section considers the embedded mitigation associated with the Proposed Development. The selection of the Site for Proposed Development has inherently avoided impacts on ecology and biodiversity as the Site comprises a previously developed area, comprising buildings, hardstanding, and poor-quality habitats. The Proposed Development will not remove any trees or impact any green or blue infrastructure.

Effects of the Proposed Development

- 5.5 Using the design principles and layout within **Figure 2**, this section concerns an assessment of ecological effects resulting from the Proposed Development. In the absence of mitigation, the following ecological impacts have been identified:
 - The removal of modified grassland
 - The clearance of the Site and construction process to potentially kill/injure badgers, hedgehogs and disrupt bat flight-paths and foraging habitat.
 - There will be increases in light spill during construction and occupation.
 - There will be pollution during construction in the form of dust, noise, chemical, and litter.

Site Wide Mitigation

- 5.6 Care will be taken during clearance/groundworks to ensure wildlife is not harmed. In the event a protected species is found when an ecologist is not in attendance, works will stop, and an ecologist will be contacted.



Pollution prevention and control

5.7 The construction phase is likely to be limited given the small scale of the Proposed Development. The Proposed Development will implement standard and well-rehearsed pollution control measures throughout construction. Given the scope of the development, the following actions will be implemented during construction:

- Take measures to minimise and prevent erosion and run-off, including minimising adjacent land disturbance.
- Control dust through fine water sprays used to dampen down the Site.
- Screen the edge of the Construction Zone by placing a fine mesh screening close to any dust sources.
- Cover skips and trucks loaded with construction materials and continually damp down with low levels of water.
- Cover piles of building materials like cement, sand and other fine materials and powders, regularly inspect for spillages, and locate them where they will not be washed into waterways or drainage areas.
- Use non-toxic paints, solvents and other hazardous materials wherever possible.
- Segregate, tightly cover, and monitor toxic substances to prevent spills and possible site contamination.
- Cover up and protect all drains within and adjacent to the construction footprint.
- Collect, control, and avoid wastewater generated from construction activities, screen, discharge the clean water, and dispose of remaining sludge according to environmental regulations.
- No burning of materials.
- Reduce noise pollution through careful handling of materials; modern, quiet power tools, equipment and generators; and low impact technologies.

Lighting Strategy

5.8 Lighting during construction and occupation has the potential to disrupt / modify the behaviour of wildlife. A Sensitive Lighting Strategy will be implemented. This strategy will include consideration of the following principles:

- Lighting within the Site will be reduced as far as practicable.
- Luminaires will be positioned and directed away from ecological receptors (the vegetation to the south)
- Column heights will be reduced as far as practicably possible to reduce light spill along with the consideration of low-level bollard lighting.
- White light will be avoided, and warm colours preferably used. Preferable colours are 3000°k to 2700°k (where feasible) with peak wavelengths greater than 550nm.
- 0% upward light output and no tilting of the light head.



- Use vegetation, fencing and walls as a light buffers.
- Motion sensors for security lighting.
- Consideration of part night lighting and dimming (the latter viable with LED's only).
- As a last resort, the incorporation of shields, baffles and cowls fitted to the luminaires.

Designated Sites

Statutory Designated Sites

- 5.9 The statutory sites are spatially isolated from the Proposed Development as to avoid impacts in relation to habitat loss, habitat fragmentation, habitat degradation, noise, light, dust, and pollution.
- 5.10 This is supported by the SSSI Impact Risk Zones¹⁴ that the Site lies within, which are not indicating that a development of this scale and nature in this area would result in likely impacts on internationally or nationally protected Sites.
- 5.11 Statutory designated sites are not discussed further within this report.

Habitats

- 5.12 The Proposed Development avoids the loss of habitats of ecological importance as the Site is of negligible ecological importance. The removal of a small area of modified grassland is not considered significant.
- 5.13 New landscaping and structural planting are proposed, and this includes new tree planting, new woodland creation and new shrub planting. The retained and created areas of grassland will be seeded / overseeded with a species-rich mow-tolerant seed mix. In time, the greenspace and new tree planting will provide an increase in opportunities for wildlife, as well as an overall increase in the permeability of the Site for wildlife. The overall impact on habitats from the Proposed Development will be a minor positive.

Protected and Notable Species

Amphibians

- 5.14 There is a risk of amphibians including great crested newts entering the Site during construction. There are breeding opportunities for amphibians including great crested newts within 250m of the Site including **P1** and **P2**, as described above. great crested newts are legally protected in the UK.
- 5.15 Reasonable avoidance and mitigation measures will be implemented to avoid harm to great crested newt and other amphibians. It is not expected that the removal of approximately 0.16ha of modified grassland will result in a noticeable change of use of

¹⁴ The Impact Risk Zones for Sites of Special Scientific Interest (SSSI IRZs) are for local planning authorities (LPAs) to determine if a proposed development is likely to affect a terrestrial SSSI and when to consult Natural England.



the local area by great crested newt and other amphibians. The loss of this area does not represent the loss of suitable habitat.

- 5.16 In the 24 hours prior to construction, the modified grassland will be carefully inspected by an ecologist who holds a great crested newt licence. These features total an area of 0.16ha.
- 5.17 To prevent great crested newts from entering the works area, exclusion fencing will be installed around the southern, eastern, and western boundary prior to the commencement of groundworks. The fencing will comprise a continuous line of heavy-duty polythene sheeting approximately 0.5 meters above ground level, with the lower edge buried to a depth of 150–200 millimetres and folded away from the works area to prevent animals from burrowing underneath. The upper edge of the fence will include an outward-facing overhang to deter climbing. The sheeting will be supported by timber or plastic stakes positioned at approximately two-metre intervals, with all joins overlapped by at least 300 millimetres and securely fastened to maintain an unbroken barrier. The fencing will be inspected regularly and following adverse weather to ensure its integrity is maintained throughout the works. Upon completion of the construction phase and confirmation by the licenced ecologist that the area no longer poses a risk to great crested newts, the fencing will be carefully removed under ecological supervision. These works will be undertaken outside of the hibernation season (generally taken to be between November and February).

Badgers

- 5.18 There is a low risk of badgers entering the Site during construction. To avoid impacts on badgers during construction, the following precautionary measures will be implemented:
- Any excavations (e.g., trenches / pits) will be covered when works are not taking place to ensure that they do not fill with water and to prevent wildlife, including badgers, from becoming trapped within the excavation.
 - If any excavations must be left open overnight, then they will be provided with a means of escape should a badger or any other wildlife enter. This could simply be in the form of a roughened plank of wood placed in the excavation as a ramp to the surface.
 - Any exposed pipes will be capped to prevent badgers gaining access during the night.
 - Any excavations and pipes will be inspected each morning to ensure no badgers have become trapped overnight. If a badger becomes trapped, then it is likely to attempt to dig itself into the side of the excavation and form a temporary sett. If trapped badger is encountered, the advice of an ecologist will be sought.
 - The storage of topsoil or other 'soft' building materials within the clearance/construction site will be given careful consideration. Badgers could readily adopt such mounds as setts. To avoid the adoption of any mounds by badgers, mounds will be kept to a minimum and any essential mounds subject to daily inspections.



- The storage of any chemicals within the clearance/construction site will be securely stored so that they cannot be accessed or knocked over by any roaming badgers.

5.19 With the above mitigation, the risk of harm to badgers will be mitigated and the overall residual impact neutral.

Bats

Bats: Flight-paths and Foraging Habitat

5.20 The Site was assessed to be of Moderate Suitability in relation to bat flight-paths and foraging habitat.

5.21 The Proposed Development will not significantly alter the landscape or modify / sever habitats of high importance to bat flight-paths or foraging habitat. It is highly likely that the replacement of the existing habitats within the Site with hardstanding, woodland and tree planting will result in an undetectable change in the use of the Site by the local bat assemblage.

5.22 As set out above, a Sensitive Lighting Strategy will be implemented during construction and occupation. In addition, it is expected that any new light sources from the Proposed Development will be minor, low-level, similar to existing light sources, and will not significantly illuminate adjacent habitats.

5.23 In line with the limited predicted degree of risk and proportionality principle¹⁵, no bat activity surveys were undertaken. This was reasoned as follows:

- The Site and Proposed Development were small in scale with a limited ZOI.
- The Site contained a simple habitat structure / connectivity (adjacent to suitable habitats only).
- The Site itself supported habitats of Low Suitability.
- Impacts (modification, fragmentation, and severance) on commuting and foraging habitats were avoided by embedded mitigation.
- The Proposed Development will introduce new structural planting and increase canopy cover over time.

5.24 With the above mitigation, there will be a negligible impact on bat flight-paths and foraging habitat, with the overall residual impact neutral.

Nesting birds

5.25 There is a low risk that nesting birds and their young could be harmed/disturbed, during the works.

¹⁵ See sections 8.2.7, 2.2.2 and 2.2.5 of the Bat Survey Guidelines, reference 12.



- 5.26 The adjacent vegetation may be managed (to enable construction / access) and/or disturbed during the construction process but will not be removed.
- 5.27 The ideally the works would be undertaken outside the nesting bird season (which is generally taken to be March – August inclusive). However, given the low risk and that works unlikely to impact large areas of vegetation, works during the nesting bird season is reasonable. Should it prove necessary to manage vegetation (for access / construction) during the bird nesting season, then the area will be checked in advance for the presence of bird nests by a suitably competent person¹⁶. If there is no evidence of breeding birds the work will be completed within 48 hours of inspection. If any active nests are identified, clearance will cease, and an appropriate buffer zone must be established around the nest in discussions with an ecologist (usually 5m). The buffer must remain intact until it has been confirmed that the young have fledged, and the nest is no longer in use.
- 5.28 The works are not expected to have any lasting effect on the bird populations in the local area. With the above mitigation and compensation, the risk of harm to nesting birds and their young will be mitigated and the overall residual impact on nesting birds will be neutral.

Hedgehog

- 5.29 There is the low risk that hedgehog may enter the Site during construction and be killed/injured.
- 5.30 The above measures in relation to badger will protect commuting and foraging hedgehogs.
- 5.31 Hedgehogs will continue to be able to access habitats within and adjacent to the Site to commute, forage, and rest.
- 5.32 With the above mitigation, the risk of harm to hedgehogs will be mitigated and the overall residual impact on hedgehogs will be neutral.

¹⁶ Given the low risk, limited extent of removal, and ease at which nests can be seen and identified within buildings, a competent person will be able to assess for the presence of bird nests prior to demolition.



Assessment Conclusion

5.33 A summary of the assessment outcomes is presented in **Table 5**.

Ecological Feature	Importance / Suitability*	Assessment outcome
Bincknoll Dip Woods SSSI	National	Impact Avoided / No Impact
Amphibians	Site	Reasonable Avoidance Measures
Badgers		Precautionary measures during construction to avoid impacts.
Bats: Flightpaths and foraging habitat	Moderate*	Reasonable Avoidance Measures at construction
Birds	Site	Precautionary measures during construction to avoid impacts.
Hedgehog		

Table 5: Summary of assessment outcomes

5.34 Based on the results from the survey, context of the Site, and overall low ecological importance of the Site, this report is valid for a period of 18 months (i.e., the 19/12/26). It is reasoned that there would be no material change on Site within this time period. This is reasoned in line with good practice guidelines¹⁷.

Enhancement

5.35 The National Planning Policy Framework encourages development to provide gains in biodiversity. The following ecological and biodiversity enhancements will be provided within the Site:

- 1 x invertebrate box will be provided within the Proposed Development. Boxes should be installed at a height of approximately one meter in an undisturbed, sheltered location close to vegetative cover. Recommended products include Pollinating Bee log, Bee and Bug Biome, Schwegler Clay and Reed box and Schwegler Solitary Insect House.
- A 1m x 1m x2m (width, length and depth) hibernaculum will be built within the corner south-west corner of the Site. It is essential that the construction and location of this artificial habitat leads to discrete installation. Details on how to construct a hibernaculum are provided within **Appendix D**.

¹⁷ CIEEM (2019). Advice Note: *On the Lifespan of Ecological Reports and Surveys*. Chartered Institute for Ecology and Environmental Management, Winchester



Appendix A: Survey Methods

Extended UK Habitat Classification Survey

- A. 1 The Site was surveyed using the UK Habitat Classification Survey method. The method classified the Site into areas of similar botanical community types with a representative sample of those species present at the time of the survey being described. The vegetation present was clearly visible and allowed an accurate assessment to be made. Any subsequent visits to the Site were used as an opportunity to update the results and classifications of the UK Habitat Survey.
- A. 2 Grasslands within the Site were subject to quadrat surveys. Quadrat surveys included four 1m² quadrats with locations assigned using a Judgemental Stratified Survey Strategy¹⁸. The DAFOR scale was then used to assign the relative abundances of the species recorded within each of the quadrats. The DAFOR scale is as follows:
- D – Dominant (51 – 100%).
 - A – Abundance (31 – 50%).
 - F – Frequent (15 – 30).
 - O – Occasional (6 – 15%).
 - R – Rare (1 – 5%).
- A. 3 The survey was 'extended' to look for evidence of protected and notable species of flora or fauna¹⁹ and to assess the suitability of the Site to support these flora or fauna. In the context of this report, rare, protected, and notable species of flora or fauna were those considered to meet any of the following criteria:
- Species protected by UK or European legislation.
 - UK Post 2010 UK Biodiversity Framework priority species or Local Biodiversity Action Plan (LBAP) species.
 - Nationally rare or nationally scarce species.
 - Species of Conservation Concern (e.g., JNCC Red List, RSPB/BTO Red or Amber Lists).
- A. 4 The Wildlife and Countryside Act (1981) as amended, makes it an offence to release or allow to escape into the wild any animal, plant, or micro-organism not ordinarily resident in the UK (as listed in Schedule 9 of the Act). Plant species listed in Schedule 9 were searched for during the survey. However, many invasive species can be cryptic

¹⁸ Areas within the grassland were divided unequally into sub-areas based on visual cues at the Site and professional judgement, this allowed sub-areas of interest to be surveyed separately. Then sampling locations in the survey area were chosen at relatively equal distances but subjectively. This strategy avoids using a 'Random' strategy which may conflate the results of known sub-areas, thereby creating noise within the results, as well as avoiding a 'Systematic' survey which may conflate known sub-areas and/or miss sub-areas entirely.

¹⁹ Suitability was determined using respective good practice guidance for each species/species group.



and therefore this survey does not provide a guarantee that an invasive species is not present and shouldn't be relied upon to rule out absence of an invasive species²⁰.

- A. 5 An Extended UK Habitat Plan was produced (**Appendix B**), incorporating Target Notes (TNs) used to highlight features of ecological interest.

Badgers

- A. 6 The Site was systematically surveyed for evidence of badgers, in the form of:
- Setts: comprising either single isolated holes or a series of holes, which may be link to each other underground.
 - Faeces: badgers deposit faeces in characteristic excavated pits, concentrations of which (latrine sites) are typically found at home range boundaries, field boundaries and around setts.
 - Paths: worn paths used by badger, often linked to setts or foraging grounds.
 - Scratching posts: typically at the base of tree trunks.
 - Snuffle holes: scrapes where badgers have searched for food.
 - Day nests: bundles of grass and other vegetation where badgers may sleep above ground.
 - Hairs: usually found outside setts or caught under fencing.

Bat Surveys

Preliminary Roost Assessment

- A. 7 The structures within the Site were subject to a Preliminary Roost Assessment (PRA) following good practice guidelines. This is an external and internal inspection survey, the purpose of which is to search for bats/evidence of bats and assess the likelihood of bats being present and the need for further survey and/or mitigation.
- A. 8 Prior to the external inspection, each structures' age, design, location, construction materials, state of repair, and current use, were assessed. These were then related to the likelihood of a bat roost being present, along with consideration of which species of bat are most likely to use the building. The external inspection included searching for the following features to determine if suitable exit/entry points were present:
- Holes, gaps, cracks, and damage to masonry/walls.
 - Lifted, missing, slipped, and damaged tiles, including tiles at the ridge, hip and across the roof.
 - Lifted, slipped and missing areas of hanging tiles, weatherboarding, and cladding.
 - Gaps/holes/damaged to soffits and facias.

²⁰ Invasive species can be cryptic and can rapidly spread from adjacent land. Luscinia Ecology cannot be held liable for invasive species found within the Site after the date of the UK Habitat Survey.



- Lifted flashing around air vents, chimneys, roof joints.
 - Interfaces of different materials and roof designs, where construction and/or damage can cause gaps.
- A. 9 If suitable exit/entry points were observed during the external inspection, the following evidence of roosting bats was carefully searched for on the exterior of the building:
- Droppings (down the wall, on the floor, caught in spiderwebs, on windowsills).
 - Staining and/or clean/smoothed areas, indicative of exit/entry.
 - Feeding remains, including moth/butterfly wings and beetle wing casings.
- A. 10 Prior to the internal inspection, the roof/loft design, likely levels of disturbance, and any likely recent changes to the roof/loft were assessed. These were then related to the likelihood of a bat roost being present, along with consideration of which species of bat are most likely to use the roof/loft space. The internal inspection included searching for the following evidence of roosting bats within the roof/loft space:
- Roosting bats within crevices or free hanging.
 - Bat corpses (on the floor, in uncovered water tanks or other containers).
 - Bat droppings, including beneath likely roosting areas.
 - Feeding remains, including moth/butterfly wings and beetle wing casings.
 - Scratch marks, staining and/or clean/smoothed areas, indicative of regular use.
 - Bat-fly Nycteribiid spp. pupal cases.
 - Gaps within the structure of the building, including:
 - Light ingress in the roof indicating access points to the outside.
 - Between the roof lining and roof covering.
 - Within the structure of walls and suitable access points to cavity or rubble-filled walls.
 - Around the structure of chimneys or within disused chimney.
 - Around lintels.
 - Evidence beneath roof insulation, which indicates use by bats before the insulation was installed.
 - Clean swept floors, which may indicate evidence has been removed.
- A. 11 The following equipment was used for the Preliminary Roost Assessment:
- Elevation and baseline drawings of the building or structure.
 - Binoculars (Pentax Papilio II 6.5 x 21 Close focusing).
 - Powerful torch to illuminate dark corners from the ground.



- A ladder.
- Camera to record evidence.

A. 12 The assessment of the suitability of the buildings within the Site was assessed against Table 4.1 of the Bat Survey Guidelines. A redacted version of the table is set out in **Table 6** below, with additional information as noted.

Potential 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.
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 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).
Moderate	A 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, 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, and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g., maternity, or classic cool/stable hibernation site.
Confirmed*	Evidence of bats has been confirmed within the structure. A temporal scale of recent use can also be applied based upon the type of evidence found and its condition. If a roost is found it may be assigned to the following: • Confirmed, active. • Confirmed, likely active. • Confirmed, unknown if active.
*This is an addition to Table 4.1 within the Bat Survey Guidelines but is based upon assertions and reasoning within the Bat Survey Guidelines.	

Table 6: Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement – redacted and with additions

Ground Level Tree Assessment

A. 13 The trees within the Site were subject to a Ground Level Assessment (GLTA) following good practice guidelines. This is an external and internal inspection survey, the purpose of which is to search for bats/evidence of bats and assess the likelihood of bats being present and the need for further survey and/or mitigation.



A. 14 The features suitable to support bat roosts were searched for on the trees with reference to the Bat Tree Habitat Key²¹. These features are as follows:

- Longitudinal splits.
- Crevices.
- Rot-hollows.
- Transverse cracks.
- Loose bark.
- Ivy.

A. 15 The following equipment was used for the Ground Level Assessment:

- Binoculars (Pentax Papilio II 6.5 x 21 Close focusing).
- Powerful torch to illuminate dark features from the ground.
- A ladder.
- Camera to record evidence.

A. 16 The assessment of the suitability of the trees within the Site was assessed against Table 4.1 of the Bat Survey Guidelines. The table is set out in **Table 7** below.

Suitability	Description
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

Table 7: Guidelines for categorising the potential suitability of PRFs on a proposed development site for bats, to be applied using professional judgement.

Flight-path and Foraging Habitat Assessment

A. 17 The assessment of the suitability of the bat flight-paths and foraging habitat of the Site was determined using Table 4.1 of the Bat Survey Guidelines. A redacted version of the table is set out in **Table 8** below.

²¹ Andrews H. (2018). *Bat Roosts in Trees - A Guide to Identification and Assessment for Tree-care and Ecology professionals: Bat Tree Habitat Key*. Pelagic Publishing, Exeter.



Potential suitability	Description of flight-path and foraging 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-paths 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 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.

Table 8: Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement – redacted.

Assessing Ecological Importance

- A. 18 The assessment of the importance of sites, habitats and species are made in line with good practice guidelines³. These guidelines provide consistency in the approach to evaluating the importance of the ecological features within a site and the effects or impacts the Proposed Development will have on them.
- A. 19 Firstly, the Site's habitats and species are assessed using a framework which assigns a level of geographical importance to ecological features. This framework incorporates a wide range of legislation and governmental guidance in assessing each feature's importance.
- A. 20 Next, the effects/likely effects of the Proposed Development are predicted, considering different stages and activities within the development process. These effects/likely effects are then assessed for their significance, based upon the importance of the Site, habitat or species being assessed. The assessment of the significance of an



effect/likely effect is considered before and after the proposed mitigation to give an overall indication of significance.

A. 21 The importance of specific ecological receptors (sites, habitats, or species) is assigned according to their level of importance using the following terms:

- International
- National
- Regional
- County
- Local
- Site
- Negligible

Assessing Ecological Significance

A. 22 The following factors are considered when assessing the significance of ecological impacts and effects: extent, magnitude, duration, reversibility, timing and frequency and cumulative effects.

A. 23 An effect is considered significant if it either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. Conservation objectives may be specific (e.g., for a designated site) or broad (e.g., national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local. Non-significant effects (referred to as 'negligible') are those changes which do not cause an effect (adverse or positive) on the conservation objectives for 'important ecological features' or for biodiversity in general.

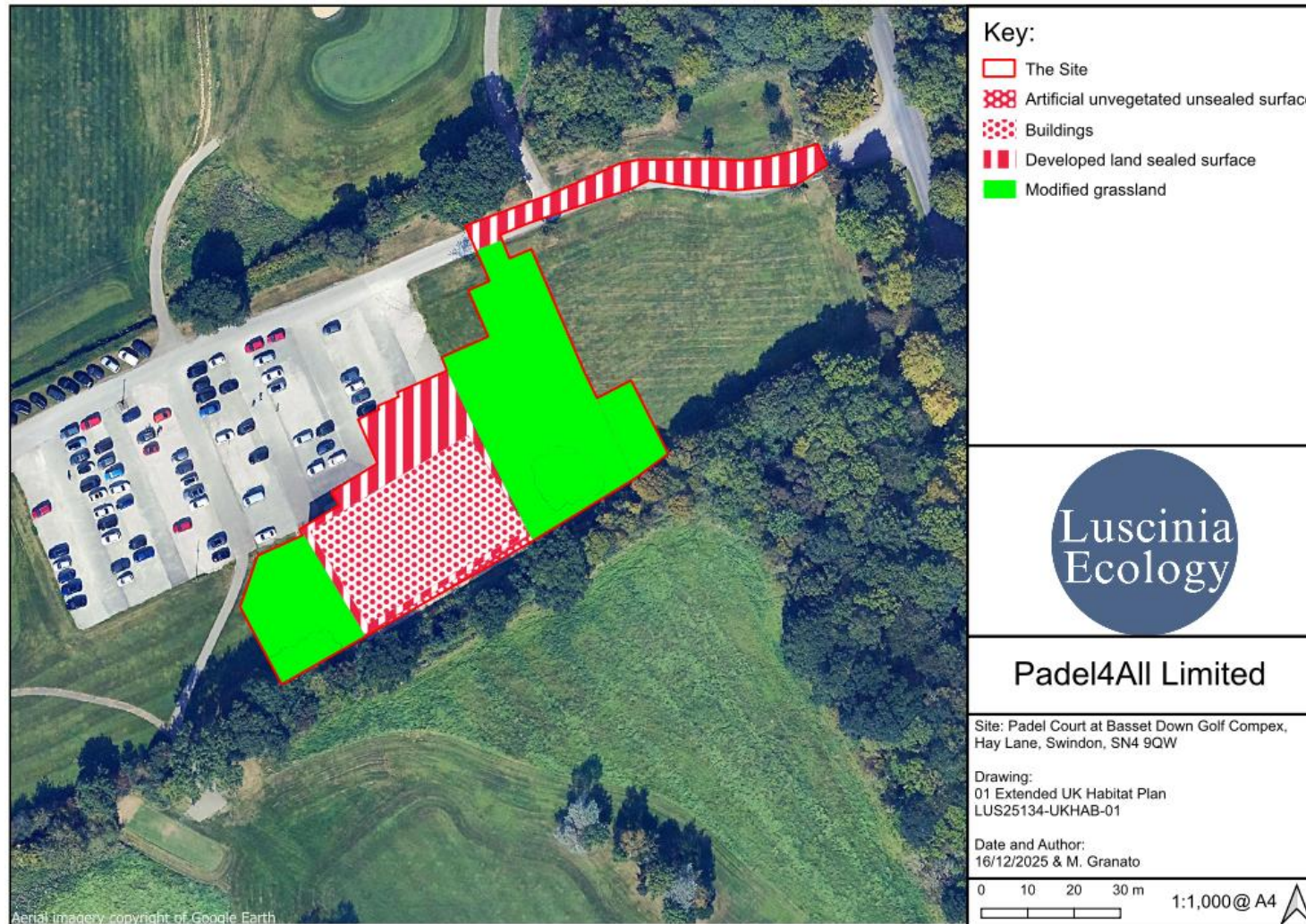
A. 24 Significant ecological effects are qualified with reference to an appropriate geographic scale. However, the scale of significance of an effect may not be the same as the geographic context in which the feature is considered important.

A. 25 In determining if an effect is ecologically significant, the following is considered:

- For designated sites, the effect of the Proposed Development on the conservation objectives of the designated site and the conservation status of species or habitats for which the Site is designated is assessed.
- For ecosystems, the effect of the Proposed Development on ecosystem structure and function is assessed.
- For habitats and species, the effect of the Proposed Development on the conservation status is assessed as well as the effects of impacts on individual habitats and species.



Appendix B: UK Habitat Classification Plan



Appendix C: Legislation and Planning Policy

- C. 1 The following local policy, national planning policy and legislation relating to nature conservation and biodiversity status, are considered of relevance to the current proposal.

Planning and Biodiversity

- C. 2 Local Authorities have a requirement to consider biodiversity conservation issues when determining planning applications.
- C. 3 The following ecological and environmental policies from the Wiltshire Core Strategy are of relevance to the Site:
- Core Policy 50: Biodiversity and Geodiversity
 - Core Policy 51: Landscape
 - Core Policy 52: Green Infrastructure
- C. 4 Chapter 15, Conserving and Enhancing the Natural Environment of the National Planning Policy Framework (NPPF)²² includes the following:

“187 Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions

²² MHCLG (2025). National Planning Policy Framework. February 2025. Ministry of Housing, Communities and Local Government, London.



such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

188. Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework⁶⁵; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

...

Habitats and biodiversity

192. To protect and enhance biodiversity and geodiversity, plans should:

a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity⁶⁸; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation⁶⁹; and

b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

193. When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁷⁰ and a suitable compensation strategy exists; and



d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

194. The following should be given the same protection as habitats sites:

a) potential Special Protection Areas and possible Special Areas of Conservation;

b) listed or proposed Ramsar sites⁷¹; and

c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

195. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site."

Legislation and biodiversity

C. 5 Certain species of animals and plants found in the wild in the UK are legally protected from being harmed or disturbed. These species are listed in the Wildlife and Countryside Act 1981 (as amended) or are named as European Protected Species (EPS) in The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (as amended). These two main pieces of legislation have been consulted when writing this report and are therefore described in detail within this section.

C. 6 Other relevant legislation and policy documents that have been consulted include:

- Protection of Badgers Act (1992)
- The Countryside and Rights of Way Act 2000
- The Hedgerow Regulations 1997
- Biodiversity Action Plans, both UK-wide (UKBAP), Local plans (LBAPs) and similar nature partnership plans.

Wildlife & Countryside Act 1981 (as amended)

C. 7 The Wildlife & Countryside Act 1981 (as amended; WCA) is the primary legislation for England and Wales for the protection of flora, fauna and the countryside. Part I within the Act outlines the protection of wildlife.

C. 8 Most offences are now covered under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (as amended), but some 'intentional' acts are still covered under the WCA, such as obstructing access to a bat roost.



- C. 9 The provisions relating to animals in the WCA only apply to 'wild animals'; these are defined as those that are living wild or were living wild before being captured or killed. It does not apply to captive bred animals being held in captivity.
- C. 10 There are 'defences' provided by the WCA. These are cases where acts that would otherwise be prohibited by the legislation are permitted, such as the incidental result of a lawful operation which could not be reasonably avoided, or actions within the living areas of a dwelling house.
- C. 11 Certain prohibited actions under the WCA may be undertaken under licence by the proper authority. For example, scientific study that requires capturing or disturbing protected animals can be allowed by obtaining a licence.

Natural Environment and Rural Communities (NERC) Act

- C. 12 The UK Post-2010 Biodiversity Framework, which supersedes UK Biodiversity Action Plan (UK BAP) priority habitats and species, provides the 'broad enabling structure for action across the UK', which in England is interpreted into Biodiversity 2020: A strategy for England's wildlife and ecosystem services; however, some authorities do still refer to BAPs. Protecting habitats and species listed on Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006 is an outcome of this strategy. The lists of priority habitats and species in England required under S41 were published by Natural England in May 2014. These measures are given due acknowledgement where relevant.

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (as amended)

- C. 13 The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (as amended; The Regulations), which are the principal means by which the EC Habitats Directive is transposed in England and Wales update the legislation and consolidate all the many amendments which have been made since they were first made in 1994.
- C. 14 The Regulations provide for the:
- Protection of European Protected Species (EPS; animals and plants listed in Annex IV Habitats Directive which are resident in the wild in Great Britain), including: bats, hazel dormice, great crested newts, otters, sand lizard, and smooth snake.
 - Designation and protection of domestic and European Sites (e.g., Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC), Special Protected Areas (SPA).
 - Adaptation of planning controls for the protection of such sites and species.
- C. 15 Public bodies (including the Local Planning Authority) have a duty to have regard to the requirements of the Habitats Directive in exercising their function (e.g., when determining a planning application).



- C. 16 There is no defence that an act was the incidental and unavoidable result of a lawful activity.
- C. 17 It is possible for actions which would otherwise be an offence under The Regulations to be undertaken under licence issued by the proper authority. For example, where an EPS has been identified and the development risks deliberately affecting an EPS, then a 'development licence' may be required.

Species Protection

- C. 18 The following protected species information is relevant to this report. Legislation is only discussed in relation to planning and development; other offences may exist.

Amphibians

- C. 19 Common frog, common toad, common newt, and palmate newt receive protection under the Wildlife and Countryside Act 1981 (as amended), making it illegal to sell or trade them.
- C. 20 The great crested newt and Natterjack toad are EPS and fully protected under The Regulations, making it an offence to:
- Deliberately capture, injure, kill, or disturb either species.
 - Intentionally or recklessly obstruct access to any structure/place used for shelter or protection.
 - Damage or destroy a breeding site or resting place.

C. 21

Badger

- C. 22 Badgers are protected in the UK under the Protection of Badgers Act 1992. Under the act it is an offence to:
- Wilfully kill, injure, take, possess, or cruelly ill-treat a Badger, or attempt to do so
 - To intentionally or recklessly interfere with a sett (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).
- C. 23 The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain; it is not intended to prevent properly authorised development.

Bats

- C. 24 All British bats are classed as EPS and therefore receive protection under The Regulations, making it an offence to:
- Deliberately kill, injure, or capture a bat.



- Deliberately disturb bats.
 - Damage or destroy a breeding site or resting place of a bat.
- C. 25 In addition, all British bats are also listed under Schedule 5 of the WCA, which contains further provisions making it an offence to intentionally or recklessly:
- Obstruct access to any structure or place which any bat uses for shelter or protection.
 - Disturb any bat while occupying a structure or place which it uses for that purpose.
- C. 26 If proposed development work is likely to destroy or disturb bats or their roosts, then a licence will need to be obtained from Natural England, which would be subject to appropriate measures to safeguard bats.

Birds

- C. 27 In the UK, the provisions of the Birds Directive are implemented through the WCA and The Regulations. All wild birds, their nests and eggs are protected, and it is an offence to:
- Kill, injure, or take any wild bird.
 - Take, damage, or destroy the nest of any such bird whilst it is in use or being built.
 - Take or destroying an egg of any such wild bird.
- C. 28 The law covers all species of wild birds including common, pest or opportunistic species. Special protection against disturbance during the breeding season is also afforded to those species listed on Schedule 1 of the Act.

Brown hare

- C. 29 Brown hare is listed on Schedule 5A of the WCA and it is an offence to intentionally or recklessly kill, injure or take Brown hare during their 'close season' (which is 1st February - 30th September), and sale and possession is an offence for any of these animals taken unlawfully.

Hazel dormouse

- C. 30 The hazel dormouse is classed as a European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence inter alia to:
- Deliberately capture, injure, or kill hazel dormice
 - Deliberately disturb hazel dormice
 - Damage or destroy a breeding site or resting place of a dormouse



C. 31 In addition, hazel dormouse is listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- Obstruct access to any structure or place which a hazel dormouse uses for shelter or protection; or
- Disturb a hazel dormouse while occupying a structure or place which it uses for that shelter or protection.

Hedgehog

C. 32 Hedgehog are protected under sections of the schedule 6 of the Wildlife and Countryside Act 1981 (as amended) making it an offence to:

- It illegal to kill or capture hedgehogs unless they are suffering or need to be rehabilitated then released back into the wild.

Reptiles

C. 33 Adders, slow worms, grass snakes and common lizards are protected against killing and injuring under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it illegal to intentionally kill or injure a common reptile.

C. 34 Smooth snakes and sand lizards are European Protected Species under schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). This makes it illegal to carry out the following activities:

- Deliberately or recklessly disturb, capture or kill these animals.
- Deliberately or recklessly take or destroy eggs of these animals.
- Damage or destroy a breeding site or resting place of such a wild animal.
- Keep, transport, sell or exchange, or offer for sale or exchange, any live or dead animal, or any part of, or anything derived from such a wild animal.



Appendix D: Hibernacula Specifications

- D. 1 A hibernacula should be built in a discreet location with good sun exposure (south facing). Disturbance should be minimised by restricting public access via fencing and dense planting. Ideally, the hibernacula should be sited within the vicinity of a mosaic of suitable habitats including: rough grassland; aquatic habitats; marginal habitats; heathland; woodland edge and glades; tussocky grassland; rough grass banks; bramble margins; brownfield land; allotments; and railways.
- D. 2 The hibernacula should be at least 2 meters deep. Large rubble should be placed into the bottom of the pit. Care should be taken not to overly compact the rubble as amphibians and reptiles require gaps in order to use the hibernacula. PVC drain pipes with holes cut into the sides along the length of the pipe, should be used for entrances and allow amphibians and reptiles multi-level access within the hibernacula. Additionally, concrete blocks should be hand placed to ensure space and tunnels extend to the bottom of the pit. The last 0.3m of the pit should be capped off with an insulating layer of smaller rubble and soil, taking care to leave PVC pipes exposed, allowing permanent access. Finally, the logs can be placed over the hibernacula to increase the discreetness of the feature.
- D. 3 The habitats surrounding should be managed in winter to avoid disturbing amphibians and reptiles which may be using the area. The vegetation within the immediate vicinity of the hibernacula should be cut back to avoid the hibernacula becoming densely shaded. Mowing should be carried out between November and December, taking care not to create large areas of short grassland within the immediate vicinity of the hibernacula. Scrub and tree cutting should be carried out between September and March. Should management be required during the reptile active season (March – October) then areas of reptile interest should be avoided where possible and clearance should be carried out in a two-phase manner: a cut to 15cm and complete clearance after another 24hrs. Hand tools should be used within the vicinity of features of reptile interest. To create/maintain a diverse tussocky structure on rough grassland and present succession to scrub, grassland should be cut on a rotation of at least 3 years.
- D. 4 Arising from management on site should be used to create log and brash piles within the vicinity of the hibernacula. Piles should be created in sunny locations in areas of long grass. The piles should not be densely compacted.

