



**Adventure Golf
Bassett Down
Complex Lower
Salthrop
Swindon
Wiltshire
SN4 9QW**

**Preliminary Ecological
Appraisal**

Luscinia Ecology
On behalf of
Sonder Sports I Limited



Document Properties

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Contents

Chapter 1: Summary	1
Chapter 2: Introduction	2
Chapter 3: Method	5
Chapter 4: Results and Assessment	10
Chapter 5: Discussion	19
Appendix A: Survey Methods	i
Appendix B: UK Habitat Classification Plan	vii
Appendix C: Legislation and Planning Policy	viii

Chapter 1: Summary

- 1.1 A planning application for the construction of an adventure golf facility at Basset Down Complex, Lower Salthrop, Swindon, Wiltshire SN4 9QW will be submitted soon.
- 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, (including implementation of the Mitigation Hierarchy), 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's avoids the loss of habitats of ecological importance.
- 1.5 The ecological impacts, and associated mitigation and compensation, associated with the Proposed Development is as follows:
 - Reasonable Avoidance Measures to protect retained habitats, badgers and other mammals, and amphibians.
 - A sensitive lighting strategy in respect of bats.
- 1.6 The following enhancements will be provided within the Site:
 - 3 x Vivara pro WoodStone 32mm nest boxes will be installed within the wider ownership onto existing trees at heights of 2m and facing north or east.
 - 3 x Schwegler 2F bat boxes will be installed within the wider ownership onto existing trees at heights of 4m and facing south or west. The features will be positioned away from sources of artificial light.
- 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 ecological importance of the Site, this report is valid for a period of 18 months (i.e., the 19/11/2026).

Chapter 2: Introduction

- 2.1 A planning application for the construction of an adventure golf facility at Basset Down Complex, Lower Salthrop, Swindon, Wiltshire SN4 9QW will be submitted soon. This report sets out a Preliminary Ecological Appraisal of the Proposed Development at the Site.

Site Description

- 2.2 The Site comprises an existing area of managed amenity grassland (referred to as 'the Site' throughout this report). A hardstanding track provides access from the north. The Site is approximately 0.34ha in size and located at National Grid Reference: SU 11071 80772. The Site is immediately surrounded by existing areas of managed amenity and longer-sward grassland in active use as a golf course (**Figure 1**). The wider landscape is largely formed of farmland.



Figure 1. Aerial image – Site boundary in red line¹

¹ Image used under licence (©2024 Google): Accessed: 20/08/2024.

Proposed Development

- 2.3 A planning application for the construction of an adventure golf facility with associated access and landscaping will be submitted soon (referred to as the 'Proposed Development' throughout this report). Access will be via a track, which leads to Basset Down Road to the East. The Proposed Development will result in the removal of the habitats within the Site and replacement with hardstanding. **Figure 2** shows the Proposed Development.

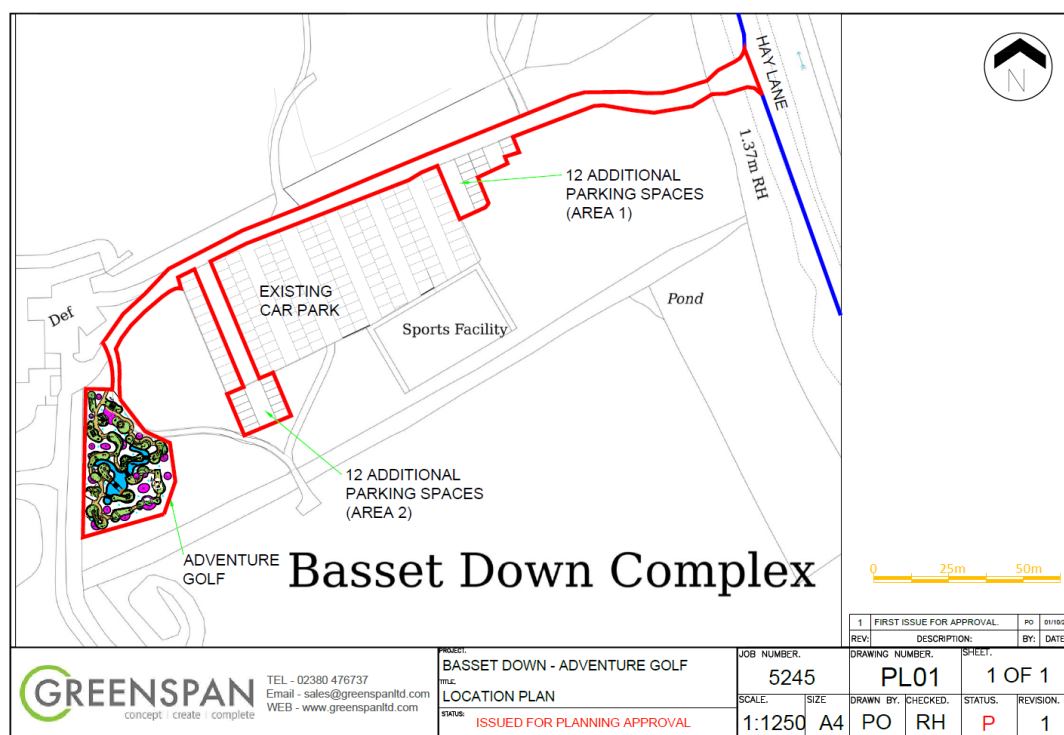


Figure 2. The Proposed Development

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 importance 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.

Chapter 3: Method

- 3.1 This report was written with regard to the CIEEM Guidelines on: Ecological Report Writing², Preliminary Ecological Appraisal³, and Ecological Impact Assessment⁴, as well as the British Standard on the Biodiversity Code of Practice for Planning and Development Biodiversity⁵ and Writing Effective Ecological Reports⁶.

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 07/08/24. The data search included the following:

- A 5km radius around the Site for statutory designated nature conservation sites⁷.
- 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 - 2019⁷,
- A 1km data search from Wiltshire and Swindon Biological Records Centre (WSBRC) for protected and notable species and non-statutory sites⁸.

² CIEEM (2015). *Guidelines on Ecological Report Writing*. Chartered Institute for Ecology and Environmental Management, Winchester.

³ CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal. 2nd Edition*. Chartered Institute for Ecology and Environmental Management, Winchester.

⁴ 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.

⁵ BSI (2013). BS 42020:2013: *Biodiversity: Code of Practice for Planning and Development*. British Standards Institution, Bristol.

⁶ Dean M. (2021). *Writing Effective Ecological Reports: A Guide to Principles and Practice*. Pelagic Publishing, Exeter.

⁷ Multi-Agency Geographic Information for the Countryside (MAGIC) maps For England and Wales. Available online at: <https://magic.defra.gov.uk/home.htm>

⁸ Wiltshire and Swindon Biological Records Centre (WSBRC), received 04/09/2024.

- A 1km review of the habitats within the local landscape, habitat designations, and their suitability to support protected and notable species using aerial imagery⁹.

Field Surveys

3.5 The following surveys were undertaken at the Site:

- Extended UK Habitat Classification Survey¹⁰
- Bats – Ground Level Tree Assessment (GLTA) ¹¹
- Visual Badger Survey
- Biodiversity Net Gain Condition Assessments
- Consideration of suitability for protected and notable species
- Incidental observations

3.6 The surveys were completed on 07/08/2024 by Mel Granato. An additional Site visit was made by Greg Nightingale on 19/06/25. A detailed method for each of the surveys listed above is presented within that **Appendix A**.

Assessing Ecological Importance

3.7 The assessment of the importance of sites, habitats and species are made in line with good practice guidelines⁴. 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.

3.8 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.

3.9 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.

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

- International
- National

⁹ Google Earth. Available online at: <https://earth.google.com/web/>

¹⁰ UKHab Ltd (2023). *UK Habitat Classification Version 2.0*. UKHab Ltd, Stockport.

¹¹ Collins, J. (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition)*. The Bat Conservation Trust, London.

- Regional
- County
- Local
- Site

Assessing Ecological Significance

- 3.11 The following factors are considered when assessing the significance of ecological impacts and effects: extent, magnitude, duration, reversibility, timing and frequency and cumulative effects.
- 3.12 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.
- 3.13 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.
- 3.14 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.

Contributor information

- 3.15 The surveys and assessments were designed and led by Mel Granato. The PEA was written by Mel Granato and updated by Greg Nightingale. **Table 1** outlines the relevant experience of the assessment contributors.

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. He is experienced in UK Habitat 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	Mel is an Ecologist with Luscinia Ecology. She holds a degree in Conservation Ecology. Mel has two publications, one of which can be found in the Journal of Insects (Granato <i>et al.</i>, 2024), with the second publication currently in review. Mel has practical experience and theoretical knowledge with bat, reptile, great crested newt, breeding bird surveys, technical report writing, UK Hab classification systems, biodiversity net gain metrics and QGIS. Mel has submitted her Qualifying Member application 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

Limitations and Assumptions

- 3.16 The 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.

Table 2. Summary of limitations and their effect

Chapter 4: Results and Assessment

Data Search

The Local Landscape Context

- 4.1 The Site is immediately surrounded by existing areas of managed land in the form of a golf course. The wider landscape comprises farmland. The key green infrastructure within the local landscape, includes woodland, scrub, and a hedgerow network. The key blue infrastructure includes a pond 43m to the south-west of the Site, a ditch immediately adjacent to the south of the Site and a dried ditch 200m to the east of the Site.

Statutory Designated Sites

- 4.2 Statutory designated sites are the most significant ecological receptors and include Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and RAMSAR sites, which are all of **International Importance**, and Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs), which are 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 3**.

Site Name	Reason for designation	Distance and direction
Bincknoll Dip Woods SSSI	The site is designated for supporting populations of nationally and internationally rare mosses.	1.2km south
Goldborough Farm Meadows SSSI	The site is designated for supporting floristically rich, traditional managed hay meadows.	2.3km south-west
Clouts Wood SSSI	The site is designated for supporting a steep scarp of the lower chalk.	2.8km south-east
Wooten Basset Mud Spring SSSI	The site is designated for supporting a hydrogeological phenomenon which is only represented by a few other examples in Britain.	3.4km west
Old Town Railway Cutting SSSI	The site is designated for supporting a key late Jurassic locality.	4.5km north-east
Great Quarry SSSI	The site is designated for supporting the only exposure of Purbeck facies 'Swindon Series'. It has long been famous for the richness of its molluscan faunas from the marine Swindon Roach.	4.8km north-east
Okus Quarry SSSI	The site is designated for supporting classic late Jurassic locality exposes a residual section through the local Portland succession, showing the Glauconitic Beds, Cockly Bed and Swindon Sand and Stone.	4.8km north-east
Burderop Wood SSSI	The site is designated for supporting a wet ash-maple and acid pedunculate oak-hazel-ash woodland, with a rich associated ground flora.	5km east
Rushey Platt Canalside Park LNR	The site is designated for supporting wetland habitats and priority protected species.	3.7km north-east
Quarry Wildlife Garden LNR	The site is designated for supporting priority protected species.	4.2km north-east
Jubilee Lake LNR	The site is designated for supporting wetland habitats, ancient woodlands and grasslands.	4.9km north--west
Radnor Street Cemetery LNR	The site is designated for supporting ancient semi-natural woodland.	5km northeast

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

Non-Statutory Designated Sites

4.5 There were no non-statutory designated sites returned by the desk study.

Protected and Notable Species

4.6 The relevant protected species records from the data search are incorporated into the Protected and Notable Species section, below.

Habitat Survey

4.7 The Site supported the following habitats:

- **Grassland:** Modified grassland
- **Urban:** Developed land; unsealed surface

4.8 All the habitats and features described are shown on the Extended UK Habitat Classification Plan at **Appendix B**.

Urban: Developed land; unsealed surface

Hardstanding

4.9 Compacted gravel occupied approximately 10% of the Site (**Photograph 1**). The area formed the track to the Site and a small access track through the Site. The **Hardstanding** was of **Negligible Importance**.



Photograph 1. Hardstanding track

Grassland:

Modified grassland

4.10 There were three parcels of Modified grassland in the south and south-west of the Site. The modified grassland occupies approximately 60% of the Site and is managed regularly as part of the golf course (**Photograph 2**). The grassland had a short sward height and dense, consistent ground cover. The ground was compact, and no thatch layer or complexity was present at ground level. Species recorded in the area included: white clover *Trifolium repens*, red clover *Trifolium pratense*, creeping buttercup

Ranunculus repens, rough hawkbit *Leontodon hispidus*, trefoil. sp, false oat grass *Arrhenatherum elatius*, perennial rye grass *Lolium perenne*, Yorkshire fog *Holcus lanatus*, cocks' foot *Dactylis glomerata*, annual daisy *Bellis annua* and dock. sp. The **modified grassland** was of **Negligible Importance**.



Photograph 2. Grassland regularly managed

Individual tree: Urban tree:

- 4.11 There was one small cherry *Prunus spp.* (T1) located south of the access track. The tree showed minor signs of dieback. The **individual tree** was of **Site Importance**.

Protected and Notable Species

- 4.12 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*
- Reptiles

Amphibians

- 4.13 There was one granted great crested newt EPSL within 1km of the Site:
- Great crested newt EPSL (2013) located approximately 469m to the northwest of the Site, allowing the destruction of a resting place.
- 4.14 There were no records of positive great crested newt pond surveys (2017 – 2019) or records of great crested newt class survey licence returns within 1km of the Site.
- 4.15 The WSBRC returned five records of great crested newt. The closest of these was located 500m to the north of the site at Lower Salthrop Farm, Lower Salthrop, Bassett Down, Swindon.
- 4.16 The applicant confirmed that they have seen great crested newts within the golf complex¹².
- 4.17 A review of aerial photography and OS Mapping confirmed that there were two water bodies within 250m of the Site (one pond and one ditch) and eight further ponds within 500m of the Site. The water bodies within the local landscape are shown in **Table 4**.

Waterbody number	Distance and location	Grid reference
D1	Immediately adjacent to the western boundary of the Site	SU 11055 80774
P1	Located approximately 43m to the southwest of the Site.	SU 11032 80748
P2	Located approximately 446m to the north of the Site.	SU 10971 81191
P3	located approximately 421m to the north-west of the Site.	SU 10768 81071
P4	Located approximately 350m to the north-west of the Site.	SU 1083081023
P5	Located approximately 270m to the north of the Site.	SU 10898 80985
P6	Located approximately 289m to the south of the Site.	SU 11201 80526
P7	Located approximately 264m to the south-west of the Site.	SU 10926 80505
P8	Located approximately 268m to the south-west of the Site.	SU 10867 80541
P9	Located approximately 412m to the south-west of the Site.	SU 10917 80352

Table 4. Water bodies located within 500m of the Site.

- 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

¹² Personal communication between Greg Nightingale and the Applicant on 19/06/25.

sheltering habitat, along with a ditch located adjacent to the western boundary. The likelihood of amphibians being present within the local landscape is high.

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

Badgers

4.20 The WSBRC returned 12 records of badger *Meles meles*. The closest of these was located at Lower Salthrop, Bassett Down, Swindon, approximately 200m to the north of the Site.

4.21 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.

4.22 The **badger interest** was of **Site Importance**.

Bats

Data search

4.23 There were no granted EPSL for bats within 1km of the Site.

4.24 The WSBRC returned ten records, including two Brown long-eared *Plecotus auratus*, one *Myotis*. sp, one noctule *Nyctalus noctula*, three Pipistrelle. sp, one serotine *Cnephaeus serotinus*, one soprano pipistrelle *Pipistrellus pygmaeus* and one whiskered bat *Myotis mystacinus*. The closest of these was located at Quid Hampton wood 1.2km to the south of the site. Grid reference: SU 11005 79474.

Roosts: Trees and Buildings

4.25 There were no buildings within the Site.

4.26 There was one small tree (**T1**) within the Site. **T1** had no potential to roost bats.

4.27 The **bat interest** is of **Negligible Importance**.

Flight-paths and Foraging Habitat

4.28 The Site supports a simple habitat structure formed of largely poor-quality habitats, with moderate connectivity. The Site is within 0.8km to ancient woodland. The wider landscape is largely rural, with various fields, roads, and scattered residential and commercial development. The key green infrastructure within the local landscape, includes woodland, scrub, and a hedgerow network. The wider landscape broadly aligns with High Suitability 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”.

- 4.29 Given the Site’s proximity to the ancient woodland, it is expected that the bat assemblage uses the woodland and woodland edge as a key flight-path and as a key foraging habitat. However, the Site itself is not expected to be a key flight-path or a key foraging habitat.
- 4.30 The habitat within **the Site was assessed to be of Low Suitability for bat flight paths and foraging habitat.**

Nesting birds

- 4.31 The Wiltshire and Swindon Biological Records Centre data search returned 34 records, including:
- Two sparrow hawk *Accipiter nisus*
 - Two red kite *Milvus milvus*
 - One golden plover *Pluvialis apricaria*
 - One little egret *Egretta garzetta*
 - Two kingfisher *Alcedo atthis*
 - One cuckoo *Cuculus canorus*
 - One sedge warbler *Acrocephalus schoenobaenus*
 - Two whitethroat *Curruca communis*
 - Two redwing *Turdus iliacus*
 - Two fieldfare *Turdus pilaris* and
 - One barn owl *Tyto alba*
- 4.32 The closest of these was located at Lower Salthrop Farm, Lower Salthrop, Bassett Down, Swindon, located approximately 200m to the north of the Site.
- 4.33 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 native hedgerows adjacent to the southern and western boundary of the Site have moderate suitability for nesting birds.
- 4.34 The **nesting bird** interest was of **Site Importance**.

Hedgehog

- 4.35 The WSBRC returned four records of the hedgehog *Erinaceus europaeus*. The closest of these was located on Hay Lane, Salthrop, 239m to the north of the Site.
- 4.36 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 was largely considered to provide insufficient cover or features for hedgehogs to use to hibernate. The native hedgerows adjacent to the southern and western boundary of the Site have moderate suitability for sheltering hedgehogs.
- 4.37 The **hedgehog interest** of the Site was of **Site Importance**.

Reptiles

- 4.38 The WSBRC returned no records of reptiles.
- 4.39 The Site itself is predominantly formed of habitats which are not suitable for reptiles and the areas of greenspace within the Site were highly managed. In addition, the area is frequently disturbed by residents occupying the facility. It is not expected that a population of reptiles is present within or immediately adjacent to the Site.
- 4.40 The **reptile interest** was of **Negligible Importance**. Reptiles will not be discussed further within this report.

Results Conclusion

- 4.41 A summary of the results is presented in **Table 6**. Where further consideration is required, this is addressed and resolved in the following chapters of this report.

Ecological Feature	Ecological Importance / Suitability*	Further consideration required?
Bincknoll Dip Wood SSSI	National	Yes
Burderop Wood SSSI		
Clouts Wood SSSI		
Okus Quarry SSSI		
Great Quarry SSSI		
Old Town Railway Cutting SSSI		
Goldborough Farm Meadows SSSI		
Wooten Basset Mud Spring SSSI		
Jubilee Lake LNR	Local	
Rushey Platt, Canalside Park LNR		
Quarry Wildlife Graden LNR		
Radnor Street Cemetery LNR		
Modified Grassland	Negligible	No
Individual tree: Urban tree	Site	Yes
Amphibians	Site	Yes
Bat roost	Negligible	No
Bat flight path	Low	Yes
Badgers	Site	
Nesting birds		
Reptiles	Negligible	No
Hedgehogs	Site	Yes

Table 5. Summary of Results

Chapter 5: Discussion

- 5.1 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/offsetting 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.

Embedded Mitigation

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

Effects of the Proposed Development

- 5.7 Using the design principles and layout within **Figure 2**, this section concerns an assessment of ecological effects resulting from the Proposed Development. The following effects have been identified:
 - The removal of modified grassland
 - The removal of **T1**
 - The construction of hardstanding
 - There will be increases in light spill during construction and operation.
 - There will be pollution during construction in the form of dust, noise, chemical, run-off and litter.

Designated Sites

Statutory Designated Sites

- 5.8 The statutory sites (SSSI/LNR) 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.

- 5.9 This is supported by the SSSI Impact Risk Zones 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.
- 5.10 Statutorily designated sites are not discussed further within this report.

Habitats

- 5.11 The Proposed Development avoids the loss of habitats of ecological importance as the Site is largely comprised of modified grassland which is of negligible ecological importance. The removal of a small area of modified grassland and a small tree (T1) is not considered significant.
- 5.12 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.
 - Clear delineation of the Construction Zone to avoid accidental encroachment onto retained habitats, and screen 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.
- 5.13 Habitats are not discussed further within this report.
- 5.14 Any landscaping and habitat provision should be secured by a suitably worded planning condition for a Soft Landscape Plan (or similar).

Protected and Notable Species

- 5.15 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.
- 5.16 Pollution control measures (as outlined above) will also prevent harm to protected and/or notable species which may be present in the vicinity of the Site.
- 5.17 Lighting during construction and occupation has the potential to disrupt / modify the behaviour of wildlife. Lighting within the Site will be avoided as far as possible. However, should lighting be required for safety and/or security purposes, a sensitive lighting strategy will be implemented. This strategy will include consideration of the following principles:
- No illumination of adjacent habitats, including hedgerows.
 - Luminaires will be positioned and directed away from ecological receptors.
 - 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.
 - For street lighting, the 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.

Amphibians

- 5.18 There is a risk of amphibians including GCN entering the Site during construction. There are breeding opportunities for amphibians including GCN within 250m of the Site including **P1** and **D1**, as described in **Table 4** above. GCN are legally protected in the UK.
- 5.19 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 0.15ha of modified grassland will result in a noticeable change of use by great crested newt and other amphibians. The loss of this area does not represent the loss of suitable habitat.
- 5.20 In the 24 hours prior to construction, the three parcels of modified grassland in the south and south-west of the Site will be carefully inspected by an ecologist who holds a great crested newt licence. These features total an area of 0.15ha.

- 5.21 To prevent Great Crested Newts from entering the works area, exclusion fencing will be installed around the southern and western boundary prior to the commencement of groundworks. The fencing will comprise a continuous line of heavy-duty polythene sheeting approximately 0.5 metres 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 supervising ecologist that the area no longer poses a risk to GCN, 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

- 5.22 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 temporary 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 contained in such a way that they cannot be accessed or knocked over by any roaming badgers.
- 5.23 With the above mitigation, the risk of harm to badgers will be mitigated and the overall residual impact neutral.

Bats

Bats: Roosts

- 5.24 Three mature trees, one elm and two ash were located within H2. These have the potential to house roosting bats. However, the Proposed Development will retain all three mature trees, and they will not be disturbed/damaged during construction.

Bats: Flight-paths and Foraging Habitat

- 5.25 The Site was assessed to be of low suitability in relation to bat flight-paths and foraging habitat.
- 5.26 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 will result in an undetectable change in the use of the Site by the local bat assemblage.
- 5.27 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.
- 5.28 In line with the limited predicted degree of risk and proportionality principle¹³, 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.
- 5.29 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

- 5.30 No evidence of nesting birds was present on Site. As a precautionary measure three nesting boxes will be installed within the Site. The following enhancements proposed are:
- 3 x Vivara pro WoodStone 32mm nest boxes will be installed adjacent to the southern boundary of the Site on to existing trees at heights of 2m and facing north or east.

¹³ See sections 8.2.7, 2.2.2 and 2.2.5 of the Bat Survey Guidelines, reference 12.

Hedgehog

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

Assessment Conclusion

5.35 A summary of the assessment outcomes is presented in **Table 6**.

Ecological Feature	Ecological Importance	Assessment outcome
Bincknoll Dip Wood SSSI	National	Impact avoided/No Impact
Burderop Wood SSSI		
Clouts Wood SSSI		
Okus Quarry SSSI		
Great Quarry SSSI		
Old Town Railway Cutting SSSI		
Goldborough Farm Meadows SSSI		
Wooten Basset Mud Spring SSSI		
Jubilee Lake LNR		
Rushey Platt, Canalside Park LNR	Local	
Quarry Wildlife Graden LNR		
Radnor Street Cemetery LNR		
Amphibians	Site	Reasonable Avoidance Measures
Bat roost		Precautionary measures during construction to avoid impacts.
Bat flight path		
Badgers		Enhancements required during construction.
Nesting birds		Precautionary measures during construction to avoid impacts.
Hedgehogs		

Table 6. Summary of outcomes

5.36 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 - 07/02/2026). This is reasoned in line with good practice guidelines¹⁴.

Enhancement

5.37 The Proposed Development will include the following enhancements:

- 3 x Schwegler 2F bat boxes will be installed within the Site onto existing trees at heights of 4m and facing south or west. The features will be positioned away from sources of artificial light.

¹⁴ 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 five 1m² quadrats with locations assigned using a Judgemental Stratified Survey Strategy¹⁵. 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 fauna¹⁶ 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

¹⁵ 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.

¹⁶ 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 species¹⁷.

- 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.

¹⁷ 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 7** 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 7. 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 Key¹⁸. 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 8** 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 8. 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

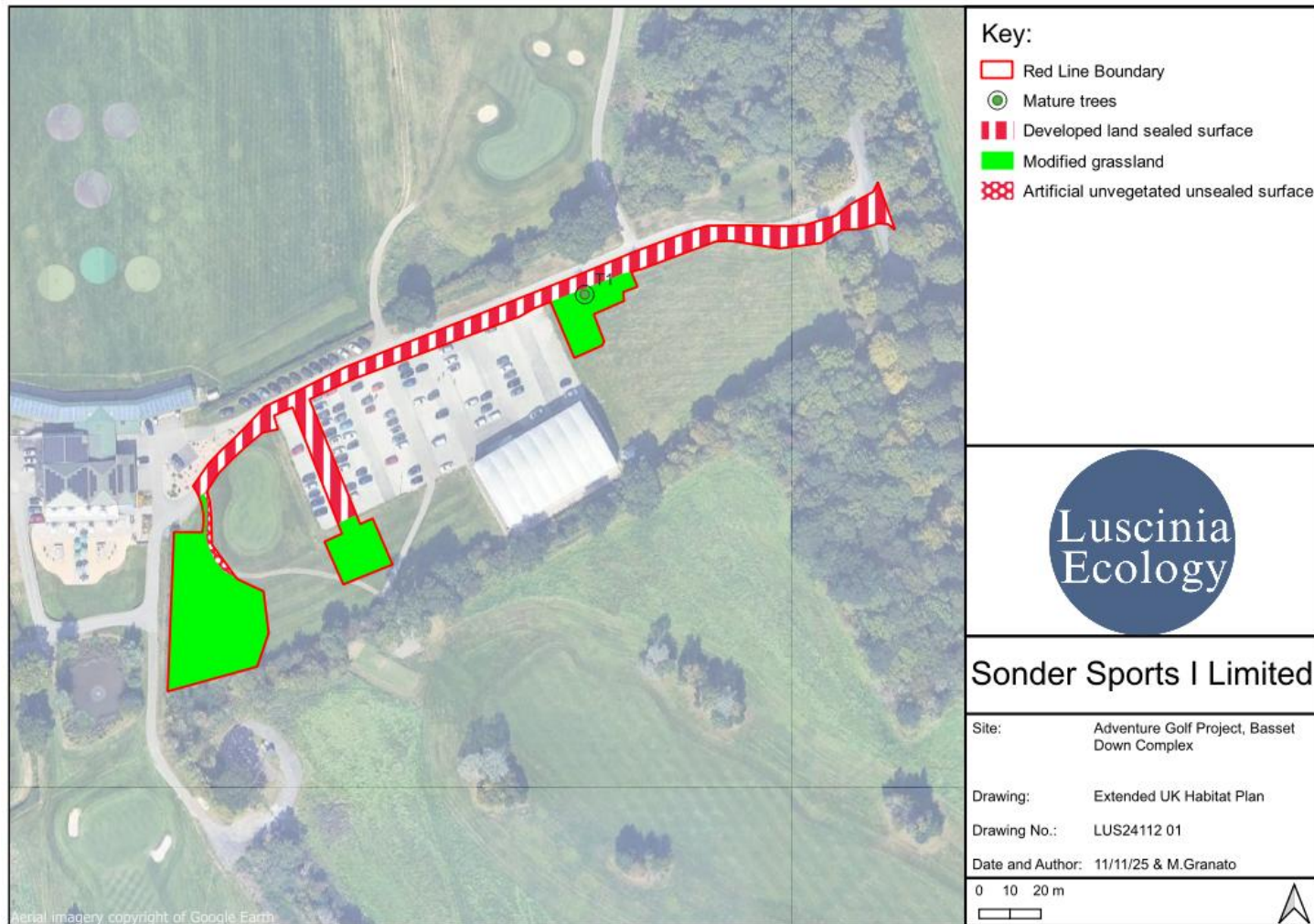
A. 17 The assessment of the suitability of the bat flight-paths and foraging habitat of the Site was determined using Table 4.1 of the Bat Survey Guidelines. A redacted version of the table is set out in **Table 9** below.

¹⁸ 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 9. 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.

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 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) includes the following:

“180. 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;

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 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.

181. 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 Framework⁶²; 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

185. 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 biodiversity⁶⁵; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation⁶⁶; 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.

186. 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 reasons⁶⁷ 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.

187. 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 sites⁶⁸; 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.

188. 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.

Badger

- C. 21 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. 22 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. 23 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. 24 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. 25 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. 26 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. 27 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.

Hedgehog

- C. 28 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. 29 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. 30 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.