



Unit 6, The Wincombe Centre,  
Wincombe Business Park, Shaftesbury,  
SP7 9QJ

Email: [info@darwin-ecology.co.uk](mailto:info@darwin-ecology.co.uk)  
[www.darwin-ecology.co.uk](http://www.darwin-ecology.co.uk)

## **Ecological Impact Assessment**

Alderbury House - landscape works  
Tunnel Hill  
Alderbury  
Salisbury  
SP5 3DW

**August 2026**

Darwin Ecology Ltd  
Registered Office: 8 Layton Lane, Shaftesbury, Dorset SP7 8EY  
Company No. 07654823

|           |                                                     |           |
|-----------|-----------------------------------------------------|-----------|
| <b>1.</b> | <b>EXECUTIVE SUMMARY</b>                            | <b>4</b>  |
| <b>2.</b> | <b>INTRODUCTION</b>                                 | <b>6</b>  |
| <b>3.</b> | <b>LEGISLATION &amp; POLICY</b>                     | <b>9</b>  |
|           | General Wildlife Legislation                        | 9         |
|           | National Planning Policy                            | 9         |
|           | Local Planning Policy                               | 11        |
| <b>4.</b> | <b>METHODOLOGY</b>                                  | <b>14</b> |
|           | Desk Study                                          | 14        |
|           | Habitat Survey                                      | 14        |
|           | Ground Level Tree Assessment (GLTA)                 | 15        |
|           | Habitat Suitability Index Assessment                | 16        |
|           | Limitations                                         | 18        |
| <b>5.</b> | <b>SURVEY RESULTS</b>                               | <b>19</b> |
|           | Designated Sites                                    | 19        |
|           | Habitat Survey                                      | 20        |
|           | Protected Species                                   | 25        |
| <b>6.</b> | <b>IMPACT ASSESSMENT</b>                            | <b>30</b> |
|           | Designated Sites                                    | 30        |
|           | Habitats                                            | 30        |
|           | Bats                                                | 32        |
|           | Great Crested Newts, Common Amphibians and Reptiles | 33        |
|           | Other Terrestrial Mammals                           | 34        |
|           | Breeding Birds                                      | 35        |
| <b>7.</b> | <b>ENHANCEMENT RECOMMENDATIONS</b>                  | <b>36</b> |
| <b>8.</b> | <b>REFERENCES</b>                                   | <b>37</b> |
|           | <b>APPENDICES</b>                                   | <b>40</b> |

| QUALITY CONTROL                                                                                                                                                                                                    |                                                  |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-------------|
| The information which we have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. |                                                  |             |
| Prepared by                                                                                                                                                                                                        | Ecologist Agnes Rutter BSc MSc                   | August 2026 |
| Reviewed by                                                                                                                                                                                                        | Principal Ecologist Olatz Gartzia BSc MSc ACIEEM | August 2026 |
| <p>This report remains valid for 2 years from date of issue.</p> <p>The survey results provided in the report are valid for 12 - 18 months from date of survey.</p>                                                |                                                  |             |

Copyright Darwin Ecology Ltd.

This report is intended for the commissioning party only and should not be copied or reproduced in any way without prior written permission from Darwin Ecology Ltd.

This report has been prepared for the sole use of the client. Any third party referring to this report or relying on the information contained herein, does so entirely at their own risk.

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living creatures are capable of migration and whilst protected species may not have been located during the survey duration, their presence may be found on site at a later date.

The views and opinions contained within the document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to works.

## 1. EXECUTIVE SUMMARY

- 1.1. Darwin Ecology Ltd were commissioned by Charlie Hawkes Landscape Design to undertake an Ecological Impact Assessment (EclA) of proposals for landscape works at Alderbury House, Tunnel Hill, Alderbury, Salisbury, SP5 3DW. The assessment was required to support a planning application for the construction of a small tennis pavilion, a timber framed garden shed, and landscaping works within the walled garden and was informed by a desk study, habitat walkover survey and Habitat Suitability Index (HSI) assessment. The assessment was also informed by a review of previous ecological work completed at the site.
- 1.2. Buildings adjacent to the site support known roosts for common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auritus*, serotine *Cnephaeus serotinus*, barbastelle bat *Barbastella barbastellus* and greater horseshoe bat *Rhinolophus ferrumequinum*; however, none of these buildings are due to be directly impacted by the proposals.
- 1.3. During the habitat walkover survey, habitats identified included a building (glasshouse), sealed surfaced, introduced shrub, a small area of neutral grassland and vegetated garden at the walled garden.
- 1.4. The site was overall assessed to provide habitat suitable for commuting and foraging bats, and breeding birds. The garden wall is considered a significant barrier to dispersal by amphibians, reptiles and mammals, however these animals are likely present in the wider landscape and may access the small parts of the site outside the garden.
- 1.5. The lime tree due to be felled has a single potential roost feature for bats and is assessed as PRF-I. The single PRF will require inspection by a licensed ecologist to confirm bat absence before felling.
- 1.6. The cherry laurel due to be removed is in close proximity to a known night perch for greater horseshoe bat at the Wood Store. Therefore, a temporary screen to ensure a dark flight corridor is maintained must be installed to ensure no impact to bats. In the long term, a vegetative screen will also be established on the eastern side of the Wood Store.
- 1.7. Due to the limited potential for protected species on site and limited extent of the proposals there are no recommendations for further surveys, but instead precautionary mitigation has been recommended. Mitigation measures will include:
  - Retained trees to be protected in accordance with British Standards BS 5837:2012.
  - No new lighting proposed keeping areas dark for bat species.
  - General mitigation measures to protect common amphibians, reptiles and terrestrial mammals during works, including;
    - Ground vegetation maintained to a short sward length prior to works to prevent habitat becoming suitable wildlife refugia.

- Should the vegetation grow longer than 30cm then any vegetation clearance must be done by hand and only during the reptile key active season (March-September, inclusive).
- All works which may impact reptiles will be undertaken during the day.
- All stored materials will be raised off the ground on pallets or skids. Aggregates, such as gravel or sand, must be delivered in bulk bags and stored on pallets.
- Any excavations or trenches on site must be covered whilst works are paused (such as overnight), or a ramp should be provided in order to prevent animals from becoming trapped.

1.8. Outline enhancement recommendations have been made including two deadwood or hibernaculum piles for amphibians and reptiles to be incorporated at the site.

## 2. INTRODUCTION

- 2.1. Darwin Ecology Ltd were commissioned by Charlie Hawkes Landscape Design to undertake an EclA of proposals for landscape works at Alderbury House, Tunnel Hill, Alderbury, Salisbury, SP5 3DW<sup>1</sup>. The assessment was required to support a planning application for the construction of a small tennis pavilion, a timber framed garden shed, and landscaping works within the walled garden and was informed by a desk study, habitat walkover survey and HSI assessment.
- 2.2. Areas to be impacted by the proposals include a small area of grassland to the west of the tennis court, removal of a parcel cherry laurel and a mature lime tree and landscaping within the walled garden. These areas are hereafter referred to as “the site”.
- 2.3. The proposed drawings on which this assessment is based are provided at **Appendix 1, Proposed Plans**.
- 2.4. Buildings adjacent to the site have been subject to extensive bat survey work in 2021 and 2025 - 2026 in support of restoration works to the Main House and Coach House. Previous ecological reports for the site which have informed this assessment include Preliminary Ecological Appraisal, Preliminary Roost Assessment, Bat Emergence/Re-entry Surveys and Mitigation Report, 2022 by Darwin Ecology.
- 2.5. The habitat walkover survey followed the Chartered Institute for Ecological and Environmental Management (CIEEM) Guidelines for Preliminary Ecological Appraisal (2017). The subsequent EclA follows the CIEEM Guidelines for EclA in the UK and Ireland (2018).

### Scope of Assessment

- 2.6. The process of EclA aims to identify, quantify and evaluate the potential effects of development-related or other proposed actions on habitats, species and ecosystems.
- 2.7. Potential effects on the following ecologically sensitive receptors have been considered during the EclA of land at Alderbury House:
- Statutory and non-statutory designated sites;
  - On-site habitats of intrinsic importance (such as priority habitats); and
  - Habitats with the potential to support protected species.

### Site Overview

- 2.8. The site is located within the grounds of Alderbury House, a listed country house with numerous associated outbuildings and ancillary structures, and extensive landscaped gardens and grounds consisting of grassland with scattered trees and several waterbodies.

---

<sup>1</sup>OS Grid Reference SU 18173 26822.

(**Figure 1**). The grounds are bounded by small roads on every aspect, Tunnel Hill road to the north, Vicarage Lane to the east and south and Witherington road to the west.

- 2.9. The wider landscape is similarly rural and comprises the village of Alderbury to the east, with a moderate sized parcel of deciduous woodland, the River Avon approximately 800m to the west and further pastoral and agricultural fields in a network of hedgerows and woodland patches (**Figure 2**).



**Figure 1:** Site location within the local landscape Copyright Google Earth Pro (August 2026).



**Figure 2:** Site location within the wider landscape Copyright Google Earth Pro (August 2026).

### 3. LEGISLATION & POLICY

#### General Wildlife Legislation

- 3.1. Wildlife in the United Kingdom (UK) is protected through European and national legislation, supported by national and local policy and guidance. Development can contribute to conservation and enhancement goals outlined by these various legislation and policy by retaining and protecting the most valuable ecological features within a site and incorporating enhancements to provide biodiversity net gain.
- 3.2. This section provides a brief summary of the principle legalisation and policy that triggers the requirement for EclA in the UK. The presence of protected species within a site are a material consideration during the planning process. Protected species and habitat surveys provide an ecological baseline for a site and evaluation of the potential impact of proposals.
- 3.3. It is the responsibility of those involved with development works to ensure that the relevant legislation is complied with at every stage of a project. Such legislation applies even in the absence of related planning conditions or projects outside the scope of the usual planning process (i.e. permitted development projects or projects requiring Listed Building Consent only).
- 3.4. The principal pieces of legislation relating to wildlife and of relevance to this report are:
  1. *EU Habitats Directive (1992)*;
  2. *EU Birds Directive (1979)*;
  3. *Conservation of Habitats and Species (Amendment) Regulations 2017*;
  4. *The Wildlife and Countryside Act 1981 (as amended)*;
  5. *The Natural Environment and Rural Communities Act 2006*; and
  6. *The Protection of Badgers Act 1992 (extended under The Hunting Act 2004)*.
- 3.5. The above legislation aims to protect sites and species and give detailed descriptions of exactly how these features are protected and what actions would constitute an offence.

#### National Planning Policy

- 3.6. The *National Planning Policy Framework (2024)* aims to minimise impacts on biodiversity and provide net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity. Chapter 15 'Conserving and enhancing the natural environment' details what local planning policies should seek to consider with regard to planning applications.
- 3.7. Planning policies and decisions should contribute to and enhance the natural and local environment by:

187 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);

187 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;

187 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;

188) Plans should: distinguish between the hierarchy of international, national and local designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; 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;

189) Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural beauty which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and Broads. The scale and extent of development within all these designated areas should be limited, while development within their settings should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas.

### 3.8. Specific policies regarding habitats and biodiversity comprise:

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 biodiversity, wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation 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 of Sites 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 reasons 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 development 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 sites; 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.

### **Local Planning Policy**

- 3.9. The local planning policy for the site is the Wiltshire Core Strategy (2015). In particular, Core Policy 50 (Biodiversity and Geodiversity) provides guidelines for protection and enhancement of the natural environment and refers to the planning guidance for Special Areas of Conservation (SACs) in Wiltshire, designated for the presence of nationally important bat species.

- 3.10. Wiltshire County Council (WCC), Natural England (NE) and local experts and researchers have jointly prepared the Bat Special Areas of Conservation (SAC) Planning Guidance for Wiltshire (2015). It is aimed at applicants, agents, consultants and planners involved producing and assessing development proposals in the landscapes surrounding Wiltshire's most sensitive bat roosting sites, which are protected by European wildlife legislation and applies to all types of developments that are subject to planning control.
- 3.11. The guidance gives details on how to mitigate any potential impacts on Wiltshire Bat SACs and to ensure that any potential issues are identified as early in the planning process as possible to prevent unnecessary delays to development projects. The guidance also outlines the ecological documents and plans, which should be submitted in support of planning applications, so as to ensure that the council has all the information required to undertake a reliable Habitats Regulations Assessment (HRA) should one be required.
- 3.12. In addition to policies relating to bat SACs, the Wiltshire Core Strategy (2015) includes Core Policy 51 (Landscape), which provides guidance for protecting, conserving and where possible, enhancing landscape character, including locally distinctive patterns and species composition of natural features (such as trees, hedgerows, woodland, field boundaries, watercourses and waterbodies). Core Policy 69 (Protection of the River Avon SAC) provides guidelines for the incorporation of measures during construction and operations to avoid and prevent pollution and to minimise disturbance effects.

#### **Wiltshire Biodiversity Action Plan**

- 3.13. The Wiltshire Biodiversity Action Plan was published in 2002 and reviewed in 2008 by the Wiltshire Wildlife Trust and over 40 delivery partners who make up the Wiltshire Biodiversity Action Plan Partnership. It includes habitat action plans for 11 of the most significant of the UK Priority Habitats in Wiltshire, which include woodland, wood-pasture, parkland and ancient trees, hedgerows, calcareous grassland, neutral grassland, traditional orchards, farmland habitats, built environment, standing open water and rivers, streams and associated habitats. In addition, a bat species action plan has also been included, covering all bat species found in Wiltshire, while other priority species have been included under the appropriate habitat action plans.
- 3.14. The Wiltshire Biodiversity Action Plan species list includes species that have national priority and also species having local importance in Wiltshire including county notables. A total of 260 species have been included on the Wiltshire Biodiversity Action Plan species list.
- 3.15. The Wiltshire Biodiversity Action Plan aims to achieve the following:
- Enable prioritisation and define actions for priority habitats and species in Wiltshire;
  - Create a plan of action that can be delivered through a partnership of statutory, private and third sector organisations;

- Provide a baseline of current knowledge and a tool to help monitor key habitats and species; and
- To link objectives, targets and actions to report nationally and enable conservation work carried out in Wiltshire to contribute to national targets and reporting.

3.16. In 2012, a landscape scale framework for conservation in Wiltshire was developed, identifying 11 Landscape Biodiversity Areas across Wiltshire and Swindon, made up of a number of priority habitats, designated sites and other areas of conservation significance. This aims to encourage landscape scale planning for species and habitat conservation across Wiltshire.

## 4. METHODOLOGY

### Desk Study

- 4.1. A desk study was undertaken for designated sites, and protected species and habitat records within 1km of the site:
- The MagicMap website was reviewed, to obtain information on any designated sites of nature conservation interest within 5km of the site and details of any European Protected Species (EPS) licences issued within 1km;
  - The Wiltshire Planning Portal was searched for past and pending planning applications that may have associated ecological documents detailing results of bat surveys;
  - A data search was reviewed from Wiltshire and Swindon Biodiversity Records Centre (WSBRC) for non-statutory designated sites, and protected and notable species within 1km, undertaken in 2021; and
  - Google Maps and Ordnance Survey (OS) Leisure Maps was utilised to view aerial photographs and maps to assess the ecological context of the site within the wider landscape.
- 4.2. Natural England has developed a tool to help assess the potential risks to SSSIs by proposed developments. These are known as 'Impact Risk Zones' (IRZs) and they define the area around a SSSI that could be sensitive to development, considering the particular sensitivities of the feature for which the site is designated.
- 4.3. The IRZs help inform whether a development proposal may affect a SSSI and if so, whether it is necessary for the Local Planning Authority (LPA) to seek pre-application advice from Natural England. Information on the IRZs was determined from the MAGIC website to determine if the LPA is required to seek consultation for the current development.

### Habitat Survey

- 4.4. A habitat walkover survey was undertaken on 2nd July 2026 by Ecologist Agnes Rutter BSc MSc. Habitats on site were broadly mapped to a minimum of 25m<sup>2</sup> in accordance with current guidance from UK Habitat Classification Version 2.0 UKHab Ltd (2023). The weather conditions at the time of the survey were approximately 32°C, with a light breeze and very dry.
- 4.5. The walkover survey assessed habitats present within the application red line boundary for their potential to support protected species, including:
- Bats;
  - Great crested newts *Triturus cristatus* and common amphibians;
  - Reptiles;
  - Dormouse *Muscardinus avellanarius*;

- Other terrestrial mammals, including hedgehog *Erinaceus europaeus* and badger *Meles meles*;
- Schedule 1 birds, including but not limited to; Barn Owl *Tyto alba*, Lapwing *Vanellus vanellus* and Skylark *Alauda arvensis*;
- Breeding birds; and
- Invertebrates.

4.6. As there is no suitable running water within the site, in combination with their nationally sparse distribution, it is considered highly unlikely that white clawed crayfish *Austropotamobius pallipes* would be using the site and they are therefore not considered further in this report. Otters *Lutra lutra* and water voles *Arvicola amphibious* were also scoped out of assessment on this basis.

4.7. The site was also searched for non-native, invasive plant species, with particular care to search for the most commonly occurring and problematic species, such as Japanese knotweed *Fallopia japonica*, Indian balsam *Impatiens grandiflora* and giant hogweed *Heracleum mantegazzianum*.

#### Ground Level Tree Assessment (GLTA)

4.8. A GLTA was carried out in accordance with the following methodology, based on recommendations set out in the Bat Conservation Trust Good Practice Guidelines (2023). The GLTA was conducted by Ecologist Agnes Rutter BSc MSc<sup>2</sup> on 2nd July 2026.

4.9. All trees on site to be impacted by the proposed works were assessed. The trees were searched from the ground using a torch and binoculars. Trees were assessed for evidence of use by bats and birds as well as potential roosting features (PRFs), such as storm damage, rot holes, ivy cover, flaying bark and splits in the trunk and also birds nesting.

4.10. Each tree was assessed for its suitability for roosting bats as detailed in **Table 1**, taken from the Bat Conservation Trust 2023 guidelines Table 4.2. If any PRFs were visible on a tree, these were assessed for their potential suitability for roosting bats as detailed in **Table 1**, taken from the Bat Conservation Trust 2023 guidelines Table 6.2.

**Table 1:** Tree roost categorisation from the Bat Conservation Trust (2023) guidelines.

| Suitability | Description                                                              |
|-------------|--------------------------------------------------------------------------|
| None        | Either no PRFs in the tree or highly unlikely to be any                  |
| FAR         | Further Assessment Required to establish if PRFs are present in the tree |
| PRF         | A tree with at least one PRF present                                     |

<sup>2</sup> Bat Level 1 Licence no. 2026-89184-SCI-CL17

**Table 2:** PRF categorisation from the Bat Conservation Trust (2023) guidelines.

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

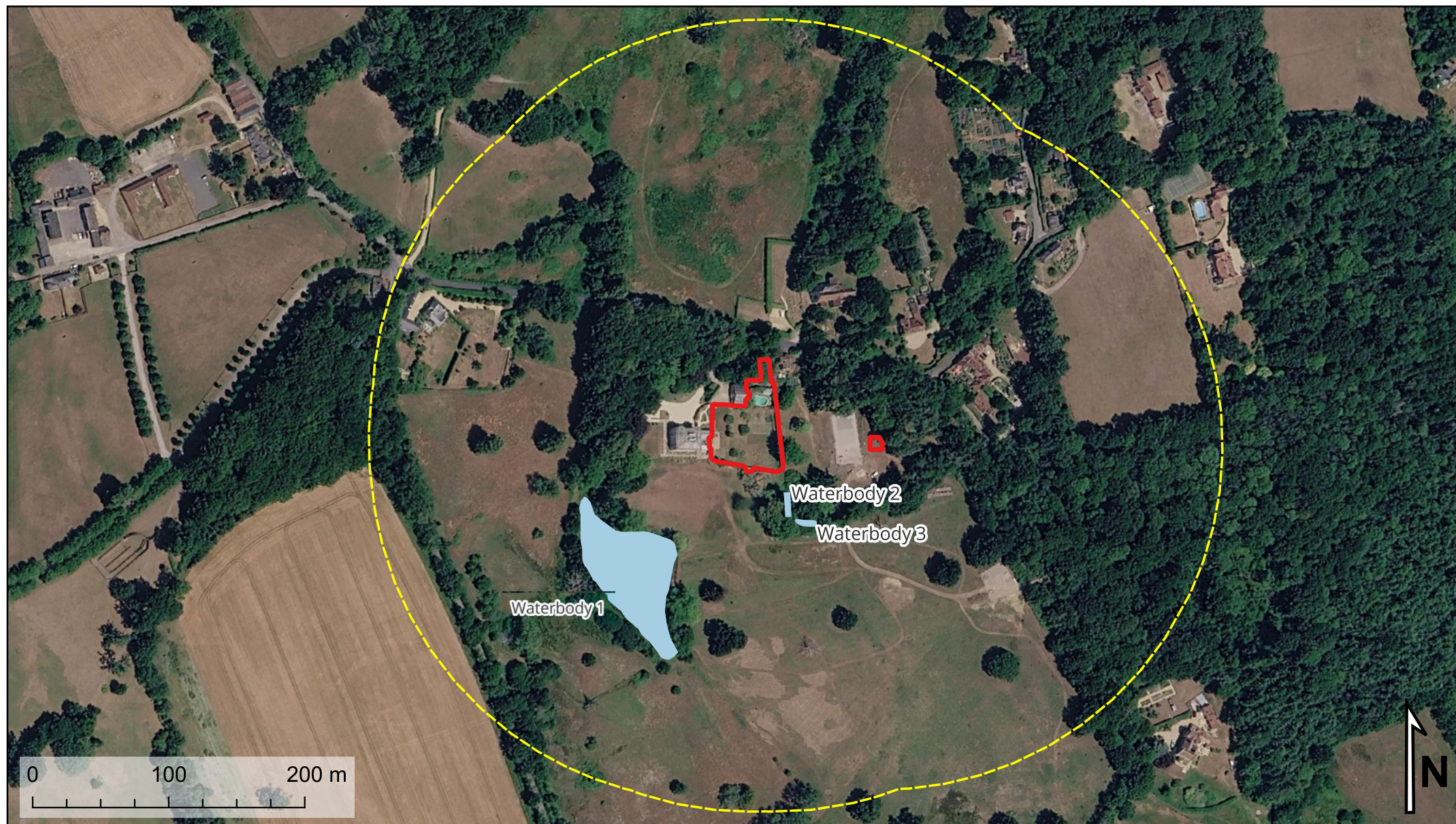
### Habitat Suitability Index Assessment

- 4.11. A total of three waterbodies were identified within 250m of the proposed development site using 1:10,000 Ordnance Survey mapping and aerial imagery. Pond locations are shown on **Figure 3**.
- 4.12. The water bodies were subject to HSI assessment undertaken by Ecologist Agnes Rutter BSc MSc<sup>3</sup> on 2 July 2026.
- 4.13. The HSI score gives an indication of the likelihood of presence of great crested newts within a water body. Generally, ponds with a higher score are more likely to support great crested newts than those with a lower score and there is a positive correlation between HSI scores and ponds in which great crested newts are recorded.
- 4.14. Ten separate attributes are assessed for each pond to calculate the suitability of the ponds to support this species: geographic location; pond area; desiccation rate; water quality; shade; number of fowl; number of fish; number of linked ponds; terrestrial habitat; and macrophyte cover.
- 4.15. A total score of between 0 and 1 is calculated and pond suitability is then determined according to the scale shown in **Table 3**.

**Table 3:** HSI scores and pond suitability for great crested newts.  
Categorisation of HSI Score by Lee Brady

| HSI Score  | Pond Suitability |
|------------|------------------|
| < 0.5      | Poor             |
| 0.5 - 0.59 | Below average    |
| 0.6 - 0.69 | Average          |
| 0.7 - 0.79 | Good             |
| > 0.8      | Excellent        |

<sup>3</sup> Great Crested Newt licence no. 2025-80828-SCI-CL08.



-  Red Line Boundary
-  250m buffer from site
-  Waterbodies



Info@darwin-ecology.co.uk  
www.darwin-ecology.co.uk

**Project:** Alderbury House - landscaping

**Figure 3:** Ponds within 250m

**Date:** July 2026

### **Limitations**

- 4.16. Ecological surveys are limited by factors that affect the presence of plants and animals such as the time of the year, weather, migration patterns. The survey was undertaken in July and therefore represents a valid sample of ecological evidence present on that date/season.
- 4.17. Ecological data is typically deemed valid for 18 months. This report remains valid for 2 years from the date of the survey, however, a walkover survey after 18 months may be required to demonstrate whether or not the habitats have remained as described.
- 4.18. The desk study does not include a recent data search from the local environmental records centre (LERC), but a historic search from 2021. Following CIEEM guidelines (2017) it is possible to conduct a robust assessment without the need of LERC data, for example for small-scale projects or on sites such as;
- A field in active arable cultivation where there is no impact on any hedges, trees or water bodies;
  - A small area of cultivated garden/amenity grassland, as above; or
  - A small urban site comprising mostly asphalt or compacted hardstanding.
- 4.19. The proposals are constrained to a small area of amenity habitats. Therefore the lack of updated LERC data is not considered a limitation to the ecological assessment of the site.
- 4.20. No other limitations were encountered, or assumptions made during either the desk study or the field survey and it is considered that with the access gained and recording undertaken an accurate assessment of the site's ecological importance has been made.

## 5. SURVEY RESULTS

### Designated Sites

- 5.1. There are three statutory sites designated for biodiversity within 2km of the site at Alderbury House, comprising one Special Area of Conservation (SAC) and two Sites of Special Scientific Interest (SSSI). Details of the sites, including reasons for designation, are provided in **Table 4**.

**Table 4:** Statutory designated sites within 2km of the site at Alderbury House

| Designated Sites       | Name and Designation Type                                                 | Reason for Designation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Approximate Distance from Site |
|------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Within Site Boundaries | There are no sites designated for biodiversity within the site boundaries |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                |
| Within 2km of Site     | River Avon SAC                                                            | The River Avon is a large, lowland river system that includes sections running through chalk and clay, with transitions between the two. The River is also designated for its Annex II species including Desmoulin's whorl snail ( <i>Vertigo moulinsiana</i> ), sea lamprey ( <i>Petromyzon marinus</i> ), brook lamprey ( <i>Lampetra planeri</i> ), Atlantic salmon ( <i>Salmo salar</i> ) and bullhead ( <i>Cottus gobio</i> ).                                                                                                  | 0.61 km west                   |
|                        | River Avon System SSSI                                                    | The Avon is richer and more varied than in most chalk streams with over 180 species of aquatic plant having been recorded, one of the most diverse fish faunas in Britain and a wide range of aquatic invertebrates.                                                                                                                                                                                                                                                                                                                 | 0.61 km west                   |
|                        | Britford Water Meadows SSSI                                               | Britford Water Meadows SSSI lies on gravel deposits in the Avon Valley and forms part of one of the last two actively managed water meadow systems in Wiltshire. It is amongst the few sites which retain the grassland community characteristic of this long established and once widespread form of management. The sward is grass dominated and is of particular importance for the various hybrids between fescues and perennial rye-grass. Numerous ditches and small waterways hold a variety of aquatic and marshland plants. | 1.1 km west                    |

- 5.2. There are no non-statutory designated sites within a 2km radius of the land at Alderbury House.
- 5.3. A search of the Wiltshire Council Planning Portal recorded a number of planning applications that have been supported by an ecological report within the last 5 years. The main property at Alderbury House records a total of six planning applications, reporting was completed by Darwin Ecology and is considered as part of this assessment within relevant species or habitat sections. No other ecological reports with protected species records were identified in the search.
- 5.4. Priority habitats within 1km of the site include coastal and floodplain grazing marsh associated with the River Avon, and small parcels of deciduous woodland. The woodland

located to the north of the site is classified as priority habitat deciduous woodland. This area of woodland is also registered on the National Forest Inventory (Woodland - Broadleaved).

- 5.5. There is a small area of ancient broadleaved woodland, Ivychurch Copse, approximately 900m to the north of the site.

### Habitat Survey

- 5.6. Habitats onsite include a building, sealed surfaced, introduced shrub, a small area of neutral grassland and vegetated garden. This section is to be read in conjunction with **Figure 4. Table 5** below outlines the summary of habitats identified on site, as well as their applicable secondary codes.

**Table 5:** Habitat applicable codes

| Primary Habitat                       | UK Hab Primary Code | Applicable Secondary Code(s) used | Secondary Code(s) description |
|---------------------------------------|---------------------|-----------------------------------|-------------------------------|
| <i>Buildings</i>                      | <i>u1b5</i>         | <i>108</i>                        | <i>Frequently mown</i>        |
| <i>Developed land; sealed surface</i> | <i>u1b</i>          | -                                 | -                             |
| <i>Built-up areas and gardens</i>     | <i>u1</i>           | <i>847</i>                        | <i>Introduced shrub</i>       |
| <i>Other neutral grassland</i>        | <i>g3c</i>          | -                                 | -                             |
| <i>Built-up areas and gardens</i>     | <i>u1</i>           | <i>108, 828</i>                   | <i>Vegetated garden</i>       |

#### *u1b5 Buildings*

- 5.7. A glasshouse is located at the north of the walled garden.

#### *u1b Developed land; sealed surface*

- 5.8. Hardstanding is present along the north of the walled garden providing a track and access.

#### *u1 Built-up areas and gardens (Secondary codes: 847 Introduced shrub)*

- 5.9. A stand of dense cherry laurel *Prunus laurocerasus* is present at the north of the site. A single mature lime tree *Tilia × europaea* is present to the north of the stand.

#### *g3c Other neutral grassland*

- 5.10. The area of the proposed tennis pavilion measure approximately 4m<sup>2</sup>. The site is located within the wider grounds, east of the tennis court and consists of regularly mown lawn. The lawn is a neutral grassland with a low species diversity and some ruderal vegetation. Species recorded across the wider lawn include Yorkshire fog *Holcus lanatus*, creeping thistle *Cirsium arvense*, nettle *Urtica dioica*, wood sorrel *Oxalis acetosella*, herb Robert *Geranium robertianum*, wood avens *Geum urbanum*, annual meadow grass *Poa annua*, rough meadow grass *Poa trivialis*, creeping buttercup *Ranunculus repens*, milk thistle *Silybum marianum*, burdock *Arctium* spp. and remote sedge *Carex remota*.

*u1 Built-up areas and gardens (Secondary codes: 828 Vegetated garden)*

- 5.11. The walled garden forms the majority of the site and consists of tightly managed lawn with limited ornamental borders. There are a number of small apple *Malus domestica* located across the west. A small pool is also encompassed within the garden. The garden is bounded by high brick walls and has limited openings at the east and north.



#### Legend

- |                   |                                |                         |
|-------------------|--------------------------------|-------------------------|
| Red Line Boundary | Developed land; sealed surface | Other neutral grassland |
| Building          | Introduced shrub               | Vegetated garden        |



**DARWIN**  
**ECOLOGY**

integrating nature conservation

info@darwin-ecology.co.uk  
www.darwin-ecology.co.uk

**Project:** Alderbury House - landscaping

**Figure 4:** Habitat Map

**Date:** July 2026

## Habitat Walkover Photographs



**Image 1:** The glasshouse and pool within the walled garden



**Image 2:** Hardstanding and cherry laurel north of the walled garden



**Image 3:** Lime tree due to be removed as part of proposals



**Image 4:** Highly managed vegetated garden within the walled garden boundaries



**Image 5** Neutral grassland at the site of the proposed tennis pavilion



**Image 6:** Waterbody 1 located to the south of the site



**Image 7:** The garden wall between the waterbodies and the site



**Image 8:** Waterbody 2 is manmade



**Image 9:** Waterbody 3 is located adjoining Waterbody 2

## Protected Species

### Bats

#### *Desk study*

- 5.12. There are three EPS licences recorded on MagicMap for licensable works impacting bat roosts within a 2km radius of the site, in the last ten years. These comprise:
- Destruction of breeding place for soprano pipistrelle *Pipistrellus pygmaeus* (licence reference 2020-49242-EPS-MIT) located approximately 1.1km northwest of the site.
  - Destruction of resting place for brown long-eared bat *Plecotus auritus*, soprano pipistrelle (licence reference 2020-50751-EPS-MIT) located approximately 1.2km northwest of the site.
  - Destruction of resting place and damage to breeding place for brown long-eared bat and soprano pipistrelle (reference 2016-25790-EPS-MIT-1) located approximately 1.3km northwest of the site.
- 5.13. In addition, four buildings outside of the site, but within the ownership of Alderbury House, including the Main House, a Coach House, a Gatekeeper's House and a Wood Store were subject to a Preliminary Ecological Assessment (PEA), Preliminary Roost Assessment (PRA) and Phase 2 bat emergence/ re-entry surveys in 2021, with update surveys of the Coach House and Gatekeeper's House in 2025 and 2026 in order to support planning applications for the renovation of buildings.
- 5.14. The surveys confirmed the buildings support a complex of bat roosts for a range of species, including a common pipistrelle *Pipistrellus pipistrellus* day roost in the northern roof of the Main House; a small maternity roost of soprano pipistrelles, day roosts for brown long-eared, serotine and barbastelle bat, and hibernation roosts for barbastelle and brown long-eared bat at the Coach House; a day roost for common pipistrelle and soprano pipistrelle in the Gatekeeper's House; and a day roost for brown long-eared and soprano pipistrelle and night perch for greater horseshoe bat within the Wood Store.
- 5.15. A data search by WSBRC in 2021 returned numerous records of a wide variety of bat species from within a 2km radius of Alderbury House, including several undetermined records of rare species such as greater horseshoe, lesser horseshoe and barbastelle bats. There are numerous records of bat roosts of common pipistrelle, soprano pipistrelle, serotine and brown long-eared bats within a 2km radius of the site.

#### *Habitat Assessment*

- 5.16. The site consists largely of regularly managed vegetated garden which has low intrinsic value as foraging and commuting habitat. However, given the presence of known roosts for a range of species at the buildings onsite and presence of parcels of woodland and grassland in the wider landscape, they are likely to support commuting and foraging bats.

The wider landscape provides excellent foraging and commuting opportunities for a wide range of bat species. The lake adjacent to the south western boundary of the site provides opportunities for Daubenton's *Myotis daubentonii* bats.

- 5.17. There are numerous mature trees within the woodland, and other scattered trees throughout the site, which have many PRFs for bats.

#### *Ground Level Tree Assessment*

- 5.18. The proposals include plans to fell a single lime tree and three apple trees within the walled garden.
- 5.19. Of the four trees subject to survey, all fruit trees were assessed as None - no potential roosting features for roosting bats. A single mature lime was recorded as PRF, due to the presence of a potential roosting feature for bats at the northern aspect of the tree (**Image 3**). The feature is a hollow limb which is open at the top and has a long split on the northern aspect and callus rolls either side. The feature was able to be inspected with a high powered led torch and no bats or evidence of bats could be identified, cobwebs were also partially present within the cavity. The callus rolls may have further crevices not inspected. Due to the location within a cluttered area of cherry laurel scrub, and considering the results of the partial inspection, the tree is assessed as PRF-I.

### **Great Crested Newt and Common Amphibians**

#### *Desk study*

- 5.20. A search of the MagicMap website recorded no EPS licences for great crested newt within 1km of the application site and no licence returns or presence records from Great Crested Newt Pond Surveys 2017 - 2019 within 1km of the site. The site is located within the Green Risk Zone in the GCN Risk Zones (Wiltshire and Swindon) provided by Natural England.
- 5.21. A data search by WSBRC in 2021 returned only one recent record in 2020, comprising one great crested newt recorded in a ditch approximately 1.2km to the east of the site.
- 5.22. A search of MagicMap website and OS Maps recorded one suitable waterbody within 250m of the site, a further two man made waterbodies were also recorded during surveys (see **Figure 3**). A lake (Waterbody 1) is located approximately 60m south of the walled garden, and Waterbodies 2 and 3 are located approximately 25m south. However, the garden wall is noted as a significant barrier to dispersal by newts.

#### *Habitat Assessment*

- 5.23. The habitat onsite comprises regularly managed vegetated garden and amenity grassland and is considered low suitability for amphibians due to the short sward length and lack of refugia. Amphibians may forage within the wider grassland, but there is limited refuge potential within the site boundaries. The walls of the walled garden also act as a significant barrier to dispersal by amphibians. Great crested newt are considered likely absent from within the walled garden area.

- 5.24. Individual or low numbers of great crested newt and common species of amphibians may access the introduced shrub area or the small 4m<sup>2</sup> area of grassland to be built into a tennis pavilion.

#### *Great Crested Newt Habitat Index Suitability Assessment*

- 5.25. During the HSI assessment of the three waterbodies within 250m of the site, waterbodies were assessed as Below Average or Poor, see **Appendix 2** for the table of full results.
- 5.26. Waterbody 1 is a lake surrounded by mature trees. Canada goose *Branta canadensis* and moorhen *Gallinula chloropus* have been active on the lake for at least five years. The HSI assessment result is **Poor**, due to the water quality, presence of waterfowl, lack of emergent vegetation and large size, however, potential to support breeding great crested newts cannot be ruled out due to the diverse nature of the pond, with various inlets and varying depths around the border of the pond.
- 5.27. Waterbody 2 a man-made pond and is brick-lined with vertical brick walls and a dense covering of duckweed. The pond is fully shaded, with no emergent plants and sub-optimal surrounding habitat with cherry laurel and bare ground and managed lawn in the wider landscape. Waterbody 2 HSI score is **Below Average**.
- 5.28. Waterbody 3 is also likely man-made and spring-fed. It is turbid with poor water quality and lacking emergent plants. It is at least 70% shaded, with a large amount of leaf litter. Waterbody 3 HSI score is **Below Average**.

### **Reptiles**

#### *Desk study*

- 5.29. A search of the MagicMap website recorded no EPS licences for reptiles within 1km of the application site. A data search by WSBRC in 2021 returned a number of records of common reptiles within 2km of Alderbury House, including a variety of species, although most of these records are historic, with few records from the last 10 years.
- 5.30. There are three records of slow-worm *Anguis fragilis* and five records of grass snake *Natrix helvetica*, with all of these records coming from a formal reptile survey in Shute End, approximately 1km to the northwest of the site.

#### *Habitat Assessment*

- 5.31. A single grass snake was recorded swimming in Waterbody 2 during the habitat walkover survey. This waterbody is not located within the site, but approximately 25m south, outside of the walled garden.
- 5.32. The habitat onsite largely comprises regularly managed vegetated garden and amenity grassland and is considered low suitability for reptiles due to the short sward length and lack of refugia. Common species of reptile are likely present within the wider landscape, but there is limited refuge potential within the site boundaries. In addition, the garden wall is considered a significant barrier to dispersal by reptiles.

## **Dormouse**

### *Desk study*

- 5.33. A search of the MagicMap website recorded one EPS licences for dormouse within 2km of the application site for the destruction of a resting place and breeding place for dormouse (licence ref. 2018-37242-EPS-MIT-1) located approximately 1.5km east. A data search by WSBRC in 2021 returned a total of four records of dormice within a 2km radius of Alderbury House within ten years. There are a further 14 records ranging from 1975 - 2006.

### *Habitat Assessment*

- 5.34. There are no suitable habitat features within the site boundaries, for dormouse. Cherry laurel is not suitable for dormouse due to its toxicity and no other shrubs or hedgerow are present within the site. Woodland adjacent to the habitat at the north of the site was also surveyed for dormouse. No evidence of dormouse was identified in the form of nests, chewed bark or nuts. Species favoured by foraging and nesting dormouse were also not present. The woodland parcel was sub-optimal due to containing large amounts of cherry laurel and being structurally open - lacking leaves due to overgrown scrub.
- 5.35. Whilst the wider landscape supports dormouse the habitats within and directly adjacent to the north of the site are considered likely absent of dormouse. Dormouse are therefore not considered further in the assessment.

## **Other Terrestrial Mammals**

### *Desk study*

- 5.36. A data search by WSBRC in 2021 returned numerous records of other terrestrial mammals from within a 2km radius of Alderbury House. Records include six records of badger from various locations and one record of a roadkill polecat *Mustela putorius* on the A36 main road approximately 1km to the east of the site. There are 19 records of hedgehog from within the village of Alderbury from 2011 - 2021.
- 5.37. The data search the SERC found 26 records for badgers *Meles meles* between 1984 and 2008 all within approximately 1km of the site. Three of these records showed evidence of active setts, with the closest 400m away on Pylle Road.

### *Habitat Assessment*

- 5.38. No evidence of badgers (such as hairs, latrines, snuffle holes or scat) or badger setts/sett entrances were identified within 30m of the site. The walled garden is considered a significant boundary to movement by mammals.
- 5.39. The site itself is intensively managed garden and provides low suitability for hedgehogs, However there is a variety of good habitat in the wider landscape for mammals such as badger and hedgehog, including the extensive areas of woodland and rough grassland.

## Breeding Birds

### *Desk study*

- 5.40. A data search by WSBRC in 2021 returned numerous records of bird species within 2km of Alderbury House. Notable breeding records from within 2km of the site include barn owl *Tyto alba*, Cetti's warbler *Cettia cetti*, hobby *Falco subbuteo* and peregrine *Falco peregrinus*.

### *Habitat Assessment*

- 5.41. The site itself is intensively managed garden, lacking dense hedgerow or scrub for nesting birds. Common garden species may nest within the cherry laurel or at trees within the site, including apple or the lime tree which are due for removal.

## Invertebrates

### *Desk study*

- 5.42. A data search by WSBRC in 2021 returned few recent records of notable invertebrates from within 2km of the site, although numerous *Section 41* invertebrates have been recorded such as white admiral *Limenitis camilla* and white letter hairstreak *Satyrrium album*.

### *Habitat Assessment*

- 5.43. The site offers relatively poor opportunities for invertebrates, largely consisting of intensively managed garden. Grass sward is cut regularly in these areas and not left to flower due to the amenity nature of the land.

## 6. IMPACT ASSESSMENT

### Designated Sites

- 6.1. There are three statutory sites designated for biodiversity within 2km of the site at Alderbury House, comprising one SAC and two SSSIs, however the proposals do not come under a description required to consult with Natural England.
- 6.2. The proposals are not considered a risk to statutory and non-statutory designated sites in the area, due to the limited nature of the development and the significant enhancement to the wider ownership through landscaping.

### Habitats

#### *Baseline*

- 6.3. Habitats onsite include a building, sealed surface, introduced shrub, a small area of neutral grassland and vegetated garden. The habitats present on site are common and widespread and have low intrinsic value. The habitat onsite with the highest value is the mature lime tree which supports a ecological niche and has potential for roosting bats.

#### *Potential Impacts*

- 6.4. Habitats to be impacted by the proposals include loss of a small area of grassland to the west of the tennis court, removal of a parcel cherry laurel and a mature lime tree to make way to the timber garden shed, and landscaping within the walled garden including loss of three apple trees.
- 6.5. Damage to retained habitats in the surrounding area via the indirect impacts of soil compaction, noise, light, dust, chemical, and litter pollution must also be considered during the works.

#### *Mitigation*

- 6.6. Best practice will be applied to prevent polluting materials from impacting on the retained habitats onsite and the adjacent habitats. All materials and potentially hazardous substances should be stored away from retained habitats and in accordance with the appropriate legislation.
- 6.7. *Tree root protection zones:* All retained trees will be protected in accordance with British Standards BS 5837:2012. Root protection areas will be 12x the diameter at breast height (DBH) or the reach of the longest branch (whichever is greater), unless otherwise advised by a qualified arboriculturist. Trees located off site but with their roots on site should also be protected. No materials should be allowed to be stored within these root protection areas and no heavy machinery should run over them.
- 6.8. *Dust pollution:* In order to reduce air pollution and nuisance to nearby residences there should be adequate screening and damping down measurements implemented during all

excavation works, clearance works and other site preparations (including storage of construction materials).

- 6.9. *Liquid storage:* All oils and fuels must be stored in compliance with the Control of Pollution (Oil Storage) Regulations 2001. Fuel must therefore be stored in dedicated impervious storage areas away from drains and watercourses. Drums over 200L must be stored on drip trays capable of holding 25% of the drum's maximum capacity. The storage of bowsters and fuel tanks must also comply with the regulations ensuring they are stored in areas capable of holding 110% of the volume. If oil or fuel is stored on site, spill kits must be available.
- 6.10. *Solid storage:* Best housekeeping practice will ensure that spillages of dry and dusty materials will be avoided. These items should be covered when not immediately in use to reduce the risk of materials becoming airborne. All stored materials will be raised off the ground on pallets or skids to remove any refuge potential for protected species such as hedgehogs, reptiles or amphibians. Aggregates such as gravel and sand must be delivered in bulk bags and stored on pallets.
- 6.11. *Run-off and site drainage:* Rainwater or waste water carrying construction debris or oils must not be allowed to flow towards adjacent habitats. This is considered to be unlikely given the nature of the works on site, however the risk should be fully assessed by the site manager before and during the works. If a risk is identified, suitable drainage or an earth bund for the construction site must be established to prevent pollution of surrounding habitats
- 6.12. *Litter:* Waste and litter produced during the construction phase must be disposed of appropriately and must not be allowed to leave the site. Good site management and waste management procedures will prevent litter or debris from the construction site impacting any adjacent or nearby habitats. If any construction waste is found outside the site boundary it will be retrieved and disposed of appropriately and the measures taken to avoid this occurrence will be reviewed.
- 6.13. *Noise and vibration:* The impacts of noise and vibration generated by the proposed construction works are expected to be low, however, noise and vibration will be managed in order to reduce impacts wherever practicable. Wherever available quiet equipment will be selected in order to control noise at source. Machinery will be shut down when not in use and throttling will be kept at a minimum. It will be maintained in good working condition to minimise mechanical vibration.
- 6.14. *Sensitive Lighting:* Sensitive lighting will be used throughout the construction period to mitigate any impacts of lighting on surrounding habitats and protected species. It is a formal recommendation that works are limited to daylight hours and no additional lighting is left turned on overnight.
- 6.15. No external lighting at the building is proposed.

- 6.16. Should any lighting be required in the future, a sensitive lighting plan will be designed to ensure there is no light spill onto the adjacent buildings and habitats. All lighting schemes should be approved by a suitable experienced ecologist.

#### *Compensation*

- 6.17. At least one fruit tree or native tree species will be planted per tree removed.
- 6.18. Given the above avoidance and mitigation strategies, it is considered likely that there will be no residual impacts on habitats.

### **Bats**

#### *Baseline*

- 6.19. Buildings adjacent to the site support known roosts for a range of species, including common pipistrelle, soprano pipistrelle, brown long-eared, serotine, barbastelle bat and greater horseshoe bat.
- 6.20. The lime tree due for removal also supports a single potential roosting feature for bats. No other potential roosting features were recorded at trees.
- 6.21. The habitat onsite comprises regularly managed vegetated grassland and is known to support commuting and foraging bats, with high habitat quality in the wider landscape, including a lake and parcels of deciduous woodland.

#### *Potential Impacts*

- 6.22. One lime tree due to be felled is identified as having a PRF-I for bats. In the absence of mitigation, any bats present at the time of works may be injured or killed and any roosts lost.
- 6.23. Cherry laurel due to be removed is located in close proximity to a known day roost for soprano pipistrelle and brown long eared bat and night perch for greater horseshoe bat. The risk for noise disturbance and impact to a commuting route for bats due to changes in shade is possible.
- 6.24. No direct impacts are anticipated by the construction of a tennis pavilion or garden shed, or by landscaping within the walled garden which currently offers minimal foraging resources for bats.
- 6.25. Indirect impacts from lighting must be considered both during the works and in the longterm management of the site. Where new lighting is required on the site (both during and after the works), light may spill onto the previously unlit buildings or habitats , this may impact the flight paths of foraging and commuting bats, and may modify any bat roosts present, contributing to habitat fragmentation.

#### *Mitigation*

- 6.26. A single PRF inspection survey for bats must be undertaken by a licensed ecologist prior to the works to the tree to confirm bat absence.
- 6.27. Works within 30m of the Wood Store and The Coach House must be undertaken under a precautionary method statement, in a sensitive manner with all possible restrictions to noise and lighting in place, to avoid disturbance to roosting bats. A temporary screen must be installed along the western aspect of the Wood Store to ensure a dark commuting access point is still available to bats, especially greater horseshoe which are particularly light averse.
- 6.28. No external lighting at the tennis pavilion or garden shed is proposed.
- 6.29. Should any lighting be required in the future, a sensitive lighting plan will be designed to ensure there is no light spill onto the adjacent buildings and habitats. All lighting schemes should be approved by a suitable experienced ecologist. See the **Appendix** for further considerations regarding bats and lighting.

#### *Compensation*

- 6.30. Should the inspection identify the potential for the feature at the lime tree to be used by a single or low numbers of bats, a single bat box must be installed within the site as compensation. Tree mounted bat boxes are best positioned at a height of between 3 to 6 metres in an open sunny position.
- 6.31. To compensate for the loss of vegetation in close proximity to the Wood Store, a belt of evergreen shrubs must be planted to the east of the Wood Store, to establish a permanent shaded access point. The western screen can then be removed.
- 6.32. Given the above avoidance and mitigation strategies, it is considered likely that there will be no residual impacts on bats.

### **Great Crested Newts, Common Amphibians and Reptiles**

#### *Baseline*

- 6.33. Records of great crested newt and common amphibians and reptiles are present in the wider area, a single grass snake was also recorded close to the site. Waterbodies were assessed as Below Average or Poor for suitability to support breeding great crested newt., however, presence of great crested newt at the waterbodies close to the site cannot be ruled out. Given the significant barrier presented by the walled garden it is considered unlikely that amphibians or reptiles are established within the boundaries of the site.
- 6.34. Individual or low numbers of great crested newt and common species of amphibians and reptiles may access the introduced shrub area or the small 4m<sup>2</sup> area of grassland to be built into a tennis pavilion.

#### *Potential Impacts*

- 6.35. Without mitigation, vegetation clearance has the potential to harm individual great crested newt, common amphibians and reptiles.

*Mitigation*

- 6.36. Reasonable avoidance measures must be implemented during any works and include:
- Any ground vegetation within the boundary should be maintained to a short sward length before any work begins to prevent the habitat becoming suitable wildlife refugia.
  - Should vegetation longer than 30cm need to be cleared, then vegetation clearance should be done by hand and only during the reptile key active season (March-September, inclusive). Weather should be 9 degrees or higher, and dry with no strong winds. This will allow active reptiles to move to more suitable habitat nearby, if they are present within the working area.
  - In order to prevent creating suitable refuges for wildlife during construction, all stored materials should be raised off the ground on pallets or skids. Aggregates, such as gravel or sand, must be delivered in bulk bags and stored on pallets.
  - If any existing refugia are to be removed, they should be dismantled by hand to ensure that no wildlife is harmed.
  - Any excavations or trenches on site must be covered whilst works are paused (such as overnight), or a ramp should be provided in order to prevent animals from becoming trapped.
- 6.37. Given the above mitigation strategies, it is considered likely that there will be no residual impacts on great crested newt, common amphibian or reptile species.
- 6.38. The proposals include an ecological improvement to habitats in the wider ownership boundary and as such, overall impacts from the landscaping plans are considered to be highly beneficial to these species.

**Other Terrestrial Mammals**

*Baseline*

- 6.39. Hedgehog and badgers are likely present in the wider landscape and may occasionally access the site along with other small mammals such as fox and deer, however they are considered unlikely to access the area within the walled garden.

*Potential Impacts*

- 6.40. If badgers and hedgehogs are able to access the site during proposed works, they may be injured or trapped in excavations.

*Mitigation*

- 6.41. General mitigation measures are considered sufficient to protect terrestrial mammals during demolition and construction works within the application area. Reasonable avoidance measures should be implemented during the works (see Amphibians and Reptiles mitigation).
- 6.42. Given the above avoidance and mitigation strategies, it is considered likely that there will be no residual impacts on badgers and hedgehogs.

**Breeding Birds***Baseline*

- 6.43. The habitats on site provide minimal foraging and nesting opportunities for garden species, and are unlikely to support ground nesting birds.

*Potential Impacts*

- 6.44. If nesting birds are present during felling of the lime or apple trees, the works may have the potential to injure/kill individual nesting birds.

*Mitigation*

- 6.45. The removal of trees should occur outside of the breeding bird season (February - August). If any vegetation removal is required during the breeding bird season, a pre-works check by a suitability qualified ecologist will be conducted no more than 24 hours before the removal to ensure that no active nests are present. If active nests are recorded, a suitable buffer will be retained around these until all chicks have fledged (to be confirmed by a suitably qualified ecologist).
- 6.46. Following the above, it is considered likely that there will be no residual impacts on birds.

## 7. ENHANCEMENT RECOMMENDATIONS

- 7.1. National planning policy states that all developments should seek to enhance onsite biodiversity whether impacts on protected species are recorded or not. Incorporating enhancement features into new or renovated buildings should be carefully considered. These features can be simple and inexpensive, please see below for specific recommendations.

### **Wildlife Beneficial Landscaping Scheme**

- 7.2. An extensive landscaping plan for the wider site is being managed by Charlie Hawkes Landscape Design. The proposals include a change of management of mown grounds to meadow, linking up existing belts of native trees with further tree planting and further planting to create woodland edge softening. Landscaping will provide significant enhancement for a range of wildlife including bats, reptiles, hedgehogs and nesting birds.
- 7.3. **Deadwood piles:** To provide new resting and hibernating habitat for reptile and amphibians, at least 2 x deadwood piles or hibernaculum features will be incorporated at appropriate areas of the site. See **Appendix 4** for more details.

## 8. REFERENCES

- Collins, J. (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition)* The Bat Conservation Trust, London
- P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines (2023). *Bat Mitigation Guidelines*. English Nature, Peterborough
- Mitchell-Jones, A. J. & McLeish, A. P. (2004). *Bat Workers' Manual (3rd Edition)*. JNCC, Peterborough
- Chartered Institute for Ecological and Environmental Management (CIEEM) Guidelines for Preliminary Ecological Appraisal (2017)
- UKHab Ltd (2023). *UK Habitat Classification Version 2.0* (at <https://ukhab.org>)[July 2026]
- CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (2018).
- BTO, JNCC and RSPB (2014). *Breeding Bird Survey: Instructions* [online] [www.bto.org/sites/default/files/u16/downloads/forms\\_instructions/BBS-Instructions-2015-online.pdf](http://www.bto.org/sites/default/files/u16/downloads/forms_instructions/BBS-Instructions-2015-online.pdf) [July 2026]
- CIEEM (2019) *Advice Note On the Lifespan of Ecological Reports and Surveys (April 2019)*.
- Dodd, S. (2021) *Invertebrate Re-Survey and Mitigation Strategy*.
- Eaton M.A., Aebischer N.J., Brown A.F., Hearn R.D., Lock L., Musgrove A.J., Noble D.G., Stroud D.A. and Gregory R.D. (2015) *Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man*. British Birds 108: 708–746.
- Edgar, P., Foster, J. and Baker, J. (2010) *Reptile Habitat Management Handbook*. Amphibian and Reptile Conservation, Bournemouth.
- Shawyer C (2012). Barn Owl *Tyto alba* Survey Methodology and Techniques for use in Ecological Assessment. Wildlife Conservation Partnership.
- English Nature (2001) *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough.
- Froglife (1999) *Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10. Froglife, Halesworth.
- Harris, J., Markwell, H. and Raybould, B. (2009) *A Method for Assessing Water Vole Habitat Suitability*. In Practice (65).
- Joint Nature Conservation Committee (2004) *Common Standards Monitoring Guidance for Reptiles and Amphibians, Version February 2004*. JNCC, Peterborough.
- Joint Nature Conservation Committee (2010) *Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit*. JNCC, Peterborough.

Natural England (2009) *Guidance on 'Current Use' in the definition of a Badger Sett*, WMLG17. Natural England, Peterborough.

Natural England, (2011). *Badgers and Development – A Guide to Best Practice and Licensing*. Natural England.

Rose, F., (2006). *The Wildflower Key*. Fredrick Warne.

UK Government's Countryside Geographic Information Website [online] [www.magic.gov.uk](http://www.magic.gov.uk) [July 2026]

### **Legislation and Policy**

Council of the European Communities (1992) Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (EN). Official Journal of the European Communities [online] [www.eurlex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:1992:206:TOC](http://www.eurlex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:1992:206:TOC) [July 2026]

Council of the European Communities (2009) Council Directive 2009/147/EC of 30 November 2009 on the conservation of wild birds (EN). Official Journal of the European Union [online] [eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:020:0007:0025:EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:020:0007:0025:EN:PDF) [July 2026]

Department for Environment, Food and Rural Affairs (2011) Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services [online] [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf) [July 2026]

Ministry of Housing, Communities & Local Governments (2023) National Planning Policy [online] [https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF\\_December\\_2023.pdf](https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf) [July 2026]

Natural Environment and Rural Communities Act 2006 (UK Parliament). The National Archives [online] [www.legislation.gov.uk/ukpga/2006/16/contents](http://www.legislation.gov.uk/ukpga/2006/16/contents) [July 2026]

Office of the Deputy Prime Minister Circular (2005) Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System [online] [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/7692/147570.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf) [July 2026]

Protection of Badgers Act 1992 (UK Parliament). The National Archives [online] [www.legislation.gov.uk/ukpga/1992/51/contents](http://www.legislation.gov.uk/ukpga/1992/51/contents) The Hunting Act, 2004 [July 2026]

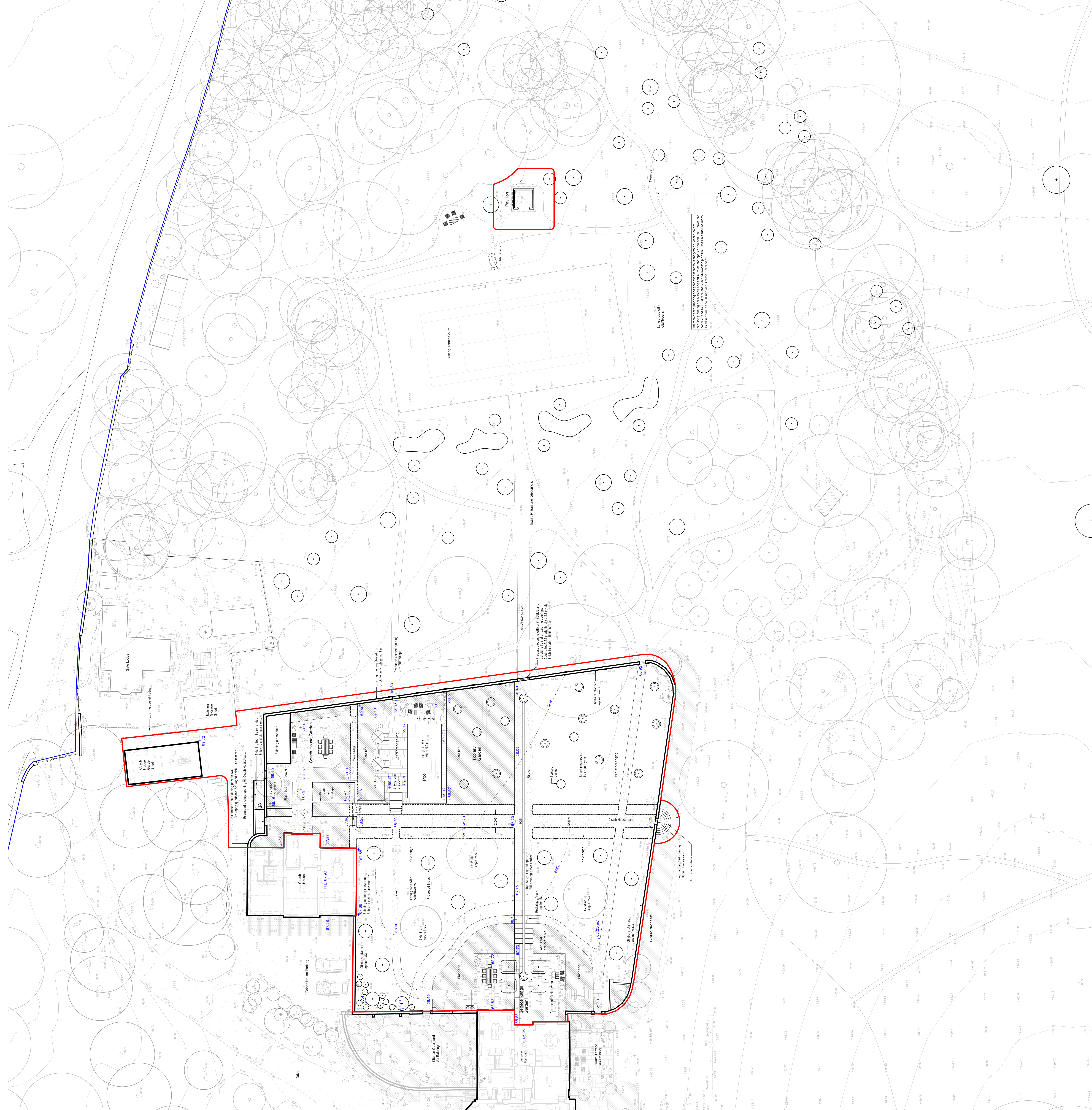
The Conservation of Habitats and Species (Amendment) Regulations 2012 (UK Parliament). The National Archives [online] [www.legislation.gov.uk/uksi/2012/1927/contents/made](http://www.legislation.gov.uk/uksi/2012/1927/contents/made) [July 2026]

The Hunting Act (2004) The National Archives [online] [www.legislation.gov.uk/uksi/2012/1927/contents/made](http://www.legislation.gov.uk/uksi/2012/1927/contents/made) [July 2026]

The Wildlife and Countryside Act 1981 (England and Wales) (Amendment) Regulations 2004 (UK Parliament). The National Archives [online] [www.legislation.gov.uk/ukpga/1991/39/contents](http://www.legislation.gov.uk/ukpga/1991/39/contents) Countryside and Rights of Way Act, 2000 [July 2026]

**APPENDICES**

**APPENDIX 1 - PROPOSED BLOCK PLAN**



**APPENDIX 2 - HSI RESULTS**

| ARGUK GCN HSI Calculator                                                    |                     |                         |               |               |
|-----------------------------------------------------------------------------|---------------------|-------------------------|---------------|---------------|
|                                                                             | Pond Name           |                         |               |               |
|                                                                             | Grid Ref            | Waterbody 1             | Waterbody 2   | Waterbody 3   |
| SI No                                                                       | SI Description      | SI Value                | SI Value      | SI Value      |
| 1                                                                           | Geographic location | 1                       | 1             | 1             |
| 2                                                                           | Pond area           | 0.8                     | 0.2           | 0.2           |
| 3                                                                           | Pond permanence     | 0.9                     | 0.9           | 0.9           |
| 4                                                                           | Water quality       | 0.33                    | 0.33          | 0.33          |
| 5                                                                           | Shade               | 1                       | 0.2           | 0.8           |
| 6                                                                           | Water fowl effect   | 0.01                    | 1             | 1             |
| 7                                                                           | Fish presence       | 0.67                    | 1             | 1             |
| 8                                                                           | Pond Density        | 1                       | 1             | 1             |
| 9                                                                           | Terrestrial habitat | 0.33                    | 0.33          | 0.33          |
| 10                                                                          | Macrophyte cover    | 0.30                    | 0.30          | 0.30          |
| <b>HSI Score</b>                                                            |                     | <b>0.42</b>             | <b>0.51</b>   | <b>0.59</b>   |
| Pond suitability (see below)                                                |                     | Poor                    | Below average | Below average |
| Categorisation of HSI Score by Lee Brady                                    |                     |                         |               |               |
| <b>HSI Score</b>                                                            |                     | <b>Pond Suitability</b> |               |               |
| < 0.50                                                                      |                     | Poor                    |               |               |
| 0.50 - 0.59                                                                 |                     | Below average           |               |               |
| 0.60 - 0.69                                                                 |                     | Average                 |               |               |
| 0.70 - 0.79                                                                 |                     | Good                    |               |               |
| > 0.80                                                                      |                     | Excellent               |               |               |
| Based on ARGUK advice note 5 - Great Crested Newt Habitat Suitability Index |                     |                         |               |               |
|                                                                             |                     |                         |               |               |
|                                                                             |                     |                         |               |               |
|                                                                             |                     |                         |               |               |
|                                                                             |                     |                         |               |               |

**APPENDIX 3 - BATS AND LIGHTING**



## THE IMPACT OF LIGHTING ON BATS

Bats favour a dark environment for both roosting and foraging as they are adapted to low-light conditions. Artificial lighting will disturb bats if the lighting covers roost access points, flight paths or foraging habitats.

The main peak of nocturnal insect abundance occurs at dusk and a delay in emergence results in a lower foraging rate for bats.

Artificial lighting creates a 'vacuum effect' for nocturnal insects. During the night nocturnal insects use the light of the moon\* to navigate. However, artificial lighting and even sky glow above cities obscures the natural moonlight as it is closer

and radiates light in multiple directions.

Some species of bats have been recorded foraging around street lights such as *Pipistrellus* species and *Nyctalus* species. However, species that are less tolerant of artificial light are at a disadvantage when foraging as insects are drawn away from these species usual foraging grounds into the zones of artificial light.

Lighting must be considered in context to any development as increased lighting may cause roost abandonment, reduced reproductive success, and reduced foraging. Mitigation to reduce the impacts of lighting for bats is therefore of great importance in bat conservation.

Table 1: Summary of predicted impact of lighting for each species/genus

| Impact          | High                                                                                                              | Medium                                                                                                            | Low                                                                                                               |
|-----------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Behaviour       |                                                                                                                   |                                                                                                                   |                                                                                                                   |
| Maternity roost | All species                                                                                                       | -                                                                                                                 | -                                                                                                                 |
| Night roost     | <i>Rhinolophus hipposideros</i><br><i>Rhinolophus ferrumequinum</i><br><i>Myotis</i> spp.<br><i>Plecotus</i> spp. | <i>Pipistrellus</i> spp.<br><i>Nyctalus</i> spp.<br><i>Eptesicus serotinus</i><br><i>Barbastella barbastellus</i> | -                                                                                                                 |
| Emergence       | All species                                                                                                       | -                                                                                                                 | -                                                                                                                 |
| Foraging        | <i>Rhinolophus hipposideros</i><br><i>Rhinolophus ferrumequinum</i><br><i>Myotis</i> spp.<br><i>Plecotus</i> spp. | -                                                                                                                 | <i>Pipistrellus</i> spp.<br><i>Nyctalus</i> spp.<br><i>Eptesicus serotinus</i><br><i>Barbastella barbastellus</i> |
| Commuting       | <i>Rhinolophus hipposideros</i><br><i>Rhinolophus ferrumequinum</i><br><i>Myotis</i> spp.<br><i>Plecotus</i> spp. | -                                                                                                                 | <i>Pipistrellus</i> spp.<br><i>Nyctalus</i> spp.<br><i>Eptesicus serotinus</i><br><i>Barbastella barbastellus</i> |
| Swarming        | All species                                                                                                       | -                                                                                                                 | -                                                                                                                 |
| Hibernation     | All species                                                                                                       | -                                                                                                                 | -                                                                                                                 |

\*For more information see Warrant, E., and Dacke, M. (2016) Visual Navigation in Nocturnal insects. *Physiology*, 31, 182-196.



Sources of light that can disturb bats include; light spill via windows, sport floodlighting, car headlights, roadside lighting, security lighting, aesthetic lighting of waterways, and aesthetic illumination of buildings. Glare will affect bats over greater distance than the target area directly illuminated.

Avoidance is the most effective method, but if this is not possible the following measures should be considered.

## What lighting should I use?

- Low pressure sodium lights or 'warm' LEDs
- Wavelength above 540nm
- Colour temperature below 2700K
- Shielded lights that prevent light spill above a 70 degree angle
- Passive infrared (PIR) motion sensors



## What to avoid:

- Lighting roost entrances, flightpaths, and foraging or commuting routes
- Reflective surfaces beneath lighting
- High level lights
- Non-directional lighting

Lighting should be considered at an early stage allowing impacts to be minimised through the design of the site.

## Key Points

- Keep lighting intensity to the minimum level required
- Limit the times that lights are on to provide some dark periods (e.g. switching installations off between midnight and 5am)
- Dim lighting according to demand
- As an alternative to lighting pathways use paving materials that reflect moonlight
- Low level lighting allows darkness to be retained within higher vegetation
- Set dark habitat buffers - lighting should always be a minimum of 25m from vegetated margins and 40m from waterbodies
- Incorporate dark corridors within the site
- Compensate for the loss of dark areas by enhancing other dark areas
- Consider building design - install internal lighting away from windows

## **APPENDIX 4 - INSTALLING REFUGIA**



## Design and creation

Deadwood habitat piles offer valuable habitats for an array of saprophytic (deadwood eating) invertebrates that will in turn provide food for a wide range of predatory species of insects, birds, mammals, reptiles and amphibians.



On sites where vegetation structure is limited, brash and log piles provide an instant enhancement. Deadwood habitat piles also provide shelter and refuge opportunities for larger animals, particularly reptiles and amphibians.

They can also be suitable hibernation sites during the winter for reptiles, amphibians and small mammals including hedgehogs. Think bonfire!

Habitat piles should be located in sunny or part shaded sites. A compact central core, with larger woody material in contact with the ground is recommended to provide the damp and decomposing wood conditions that are most suitable for benefiting saprophytic invertebrates. The outer layers should be laid more loosely on top. This provides a diverse structure within the habitat pile and provides suitable cover and basking opportunities for reptiles.

Habitat piles should be maintained by adding material every few years as the pile decomposes and do not require much management.



To provide optimal conditions for reptiles, amphibians and mammals, log piles should contain a mixture of sizes and shapes with plenty of small diameter material included. This introduces voids of different sizes and creates a complex internal structure.

They can be created to be an attractive feature of the landscape where a more formal appearance is required.

