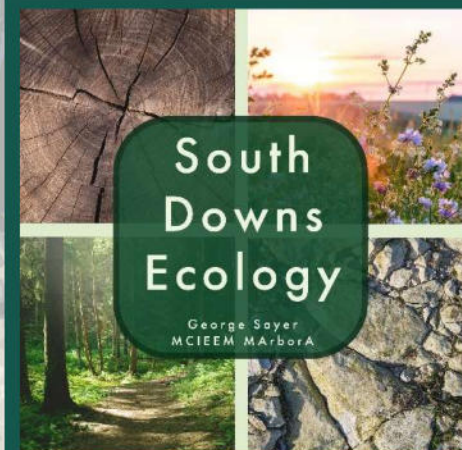




Ecological Impact Assessment

Fairhaven, Nyetimber
Lane, Pagham



South
Downs
Ecology

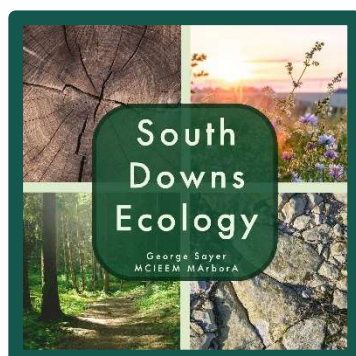
George Sayer
MCIEEM MArbora

Quality Assurance:

Document reference	GS425.FairhavenNyetimberLane.EclA.v1
Site	Fairhaven, Nyetimber Lane, Pagham
Client	Randmere Ltd
Author	Alex Rosenfeld Assistant Ecologist
Reviewer	 George Sayer BSc (Hons) PgDip MCIEEM MARborA Principal Ecologist and Director, South Downs Ecology
Revision Number	1
Report issue date	15 th July 2025
Report conditions	The methods and recommendations in this report are based on the following: • CIEEM Guidelines for Ecological Report Writing 2017 (CIEEM, 2017) • CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018) • Surveys have been carried out following the guidance sources set out in CIEEM's Good Practice Guidance for Habitats and Species (CIEEM, 2021), which include: ○ CIEEM Guidelines for Preliminary Ecological Appraisal, Second Edition (CIEEM, 2017) ○ CIEEM Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. Second Edition (CIEEM, 2017) ○ Bat Conservation Trust (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (BCT, 2023)

Contents

Summary	4
1.0 Introduction	5
2.0 Scope of Assessment.....	6
3.0 Planning Policy and Legislation	7
4.0 Methodology.....	13
5.0 Baseline Ecological Conditions.....	17
6.0 Protected Species Assessment.....	19
7.0 Evaluation of Impacts and Mitigation.....	22
8.0 Ecological Enhancements.....	25
9.0 Conclusions	26
10.0 References	27
11.0 Appendix A - Site Photos.....	28
12.0 Figure No. 01 – Site Aerial.....	33
13.0 Figure No. 02 – Site Habitat Plan	34
14.0 Figure No. 03 - Pond Locations	35
15.0 Figure No. 04 – Night Vision Stills from Bat Emergence Surveys.....	36
16.0 Figure No. 05 – Bat Emergence Survey Plan (visit 1, 18 th May 2025)	37
17.0 Figure No. 06 – Bat Emergence Survey Plan (visit 2, 15 th June 2025).....	38



Summary

The applicant, Randmere Ltd has commissioned a Preliminary Ecological Appraisal, Bat Emergence Surveys and Ecological Impact Assessment for proposals for renovation of the existing dwelling, and construction of 3no. new dwellings in an existing rear garden at the property known as Fairhaven, Nyetimber Lane, Pagham (*grid refence: SZ 89412 98521, hereafter referred to as 'the site'*).

A Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment was carried out on the 17th October 2024 by George Sayer (*BSc (Hons) Environmental Sciences, PgDip Endangered Species Recovery, MArborA, MCIEEM, NE Licence Holder – Bats Level 2 and GCN - Ecologist*).

Bat emergence surveys were conducted on 18th May and 15th June 2025.

The proposal area consists of a domestic dwelling with workshop, summerhouse and garage surrounded by extensive garden. The garden is dominated by modified grassland. Gravelled areas with plant pots were also noted, as was a small ornamental pond. The boundary was lined with introduced shrubs, with a small number of fruit trees at the back of the garden. The boundaries were lined predominantly with non-native hedgerows.

The proposals are for 2no. new dwellings in the existing rear garden.

The dwelling was considered to offer '**moderate**' suitability for roosting bats. Bat emergence surveys determined that it is highly unlikely any bats are roosting in the dwelling. The workshop, summerhouse and garage were of '**negligible**' suitability to bats. Bat activity on the site was moderate, and largely consisted of common species.

The site boundaries offered very limited potential for reptiles and amphibians. The site is highly unlikely to be of value of GCN. No evidence of badger was noted onsite. The site offers some bird nesting and hedgehog habitat.

The proposals are not anticipated to have any significant impact upon ecology; the habitats proposed for removal offer no significant potential for protected species. Basic mitigation measures are proposed to protect ecology generally as well as nesting birds and hedgehogs.

When mitigation and enhancements have been taken into account, the proposals are not considered to have a negative impact upon designated sites, habitats or protected species in accordance with planning policy and once enhancements are considered, would result in a minor net gain. The proposals would therefore accord with the relevant Arun Local Plan Policies.

1.0 Introduction

- 1.1 The applicant, Randmere Ltd has commissioned a Preliminary Ecological Appraisal, Bat Emergence Surveys and Ecological Impact Assessment for proposals of renovation of the existing dwelling and construction of 3no. new dwellings in an existing rear garden at the property known as Fairhaven, Nyetimber Lane, Pagham (*grid refence: SZ 89412 98521, hereafter referred to as 'the site'*).
- 1.2 A Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment was carried out on the 17th October 2024 by George Sayer (BSc (Hons) Environmental Sciences, PgDip Endangered Species Recovery, MArborA, MCIEEM, NE Licence Holder – Bats Level 2 and GCN - Ecologist).
- 1.3 Bat emergence surveys were conducted on 18th May and 15th June 2025.
- 1.4 The following ecological impact assessment report has been completed by Alex Rosenfeld and George Sayer. The purpose of the assessment has been to identify whether any potential impacts upon protected species, habitats or designated sites might occur, and to propose mitigation or avoidance measures where necessary.
- 1.5 Based on the results of the appraisal, recommendations for potential ecological enhancements have been provided.

Site Description and Surrounding Area

- 1.6 The proposal area consists of a domestic dwelling with workshop, summerhouse and garage. The garden is dominated by modified grassland. Gravelled areas with plant pots were also noted as was a small pond. The boundary was lined with introduced shrubs, with a small number of fruit trees at the back of the garden. The boundaries were lined predominantly with non-native hedgerows.
- 1.7 The site is located on the northern side of Pagham village, West Sussex. The site is bound to the north, west and east by other domestic dwellings. The southern boundary abuts Nyetimber Lane and the Pagham Football and Cricket Clubs and grounds beyond.
- 1.8 1no. pond is located onsite. Within a 500.0m radius lie 3 no. further ponds. These ponds are functionally disconnected by domestic properties bound by close board fencing, a series of roads and the Pagham Cricket Club Ground (large field of modified grassland). The closest lies 0.12km south.

Proposals

- 1.9 The proposals are for the renovation of the existing dwelling, including addition of further dormer windows, and construction of 3no. new dwellings in the existing rear garden.

2.0 Scope of Assessment

- 1. Categorise habitats present on the site;*
- 2. Identify habitat which may have potential for protected species;*
- 3. Identify whether any signs of protected species are present on-site;*
- 4. Recommend whether further surveys are required, or whether there are any relevant constraints with regards to protected species;*
- 5. Identify impacts of the proposed development and set out appropriate avoidance, mitigation and compensation measures;*
- 6. Provide recommendations as to how the site and proposals could be enhanced with regards to protected species and habitats.*

- 2.1 This appraisal and assessment is deemed to be relevant for a maximum of 18 months due to the possibility of changes in the habitats on-site. Should the site or proposals alter, the ecologist should be consulted to confirm that the appraisal is still valid.

3.0 Planning Policy and Legislation

National Planning Policy

- 3.1 The National Planning Policy Framework (NPPF) 2024 sets out the government planning policies for England and how they should be applied. 'Chapter 15: Conserving and Enhancing the Natural Environment' states that development should be 'minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'
- 3.2 The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

Local Planning Policy

- 3.3 The site is within the Arun District; the proposals should be assessed against the Arun District Local Plan 2011-2031. Local Planning Policy relevant to this site include Policies ENV SP1 (*Biodiversity*), W SP1 (*Flooding and Drainage*), ENV DM1 (*Designated Sites of Biodiversity and Geological Importance*), ENV DM3 (*Biodiversity Opportunity Areas*), ENV DM4 (*Protection of Trees*), ENV DM5 (*Development and Biodiversity*) AND GI SP1 (*Green Infrastructure and development*) of the Arun Local Plan 2011 – 2031 (adopted 2018).

- 3.1 *The Arun District adopted Plan (adopted 2018) Policy H SP2 states development must:*

Protect, conserve or enhance the natural environment, landscapes and biodiversity;

- 3.2 *Policy ENV SP1 states:*

Arun District Council will encourage and promote the preservation, restoration and enhancement of biodiversity and the natural environment through the development process and particularly through policies for the protection of both designated and non-designated sites.

- 3.3 *Policy W SP1 states development will be supported when it:*

Takes account of flood risk and promotes the incorporation of appropriate mitigation measures into new development, particularly Sustainable Drainage Systems that reduces the creation and flow of surface water and improves water quality;

3.4 Policy ENV DM1 Designated Sites of biodiversity or geological importance states:

a. Proposed development likely to have an adverse effect on land with the designated features of any Site of Biodiversity or Geological Importance as listed in Tables 17.1 - 17.7 or any subsequently designated sites (either individually or in combination with other developments), will not normally be permitted. Consideration will be given to the exact designated features present on the site, their scarcity/rarity and recognition of the protection offered by their existing status. Development on wildlife sites with the highest value will only be permitted exceptionally where the following can be demonstrated:

i. There is no alternative solution (which shall be adequately demonstrated by the developer).

ii. There are reasons of public health or public safety or Adoption Arun Local Plan 2011-2031 (July 2018) Arun District Council 209 17 Natural Environment

iii. There are benefits of primary importance to the environment or iv. There are imperative reasons of overriding public interest. Notwithstanding the above however, the presumption in favour of sustainable development does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined.

b. In determining any planning application affecting Sites of Biodiversity or Geological Importance the Council will ensure that the intrinsic natural features of particular interest are safeguarded or enhanced having regard to;

i. The European, National or Local status and designation of the site;

ii. The nature and quality of the site's features, including its rarity value; iii. The extent of any adverse impacts on the notified features of interest; iv. The need for compensatory measures in order to re-create remaining features of habitats on or off the site. c. Where appropriate the Council will ensure the effective management of designated sites through the imposition of planning conditions or Section 106 agreements as appropriate.

3.5 Policy ENV DM3 Biodiversity Opportunity Areas states that development shall:

a. Retain and sympathetically incorporate locally valued and important habitats, including wildlife corridors and stepping stones

b. Be designed in order to minimise disturbance to habitats

Development proposals that do not reasonably address opportunities for enhancing these through their design, layout and landscaping or access/management shall not be permitted. Where a development scheme would result in a habitat loss, mitigation measures will be proposed as part of the proposed scheme and such measures agreed with the Local Planning Authority prior to the determination of any planning application. Within Biodiversity Opportunity Areas (BOAs) identified on the Policies Maps or where likely to have an impact on species or habitats within the BOAs, any application for planning permission shall include a properly conducted survey of the presence of that species and habitat and impact(s) that development may have on the BOA.

3.6 Policy ENV DM4 Protection of trees states that:

Development will be permitted where it can be demonstrated that trees protected by a Tree Preservation Order(s), (TPO) identified as Ancient Woodland, in a Conservation Area or contributing to local amenity, will not be damaged or destroyed now and as they reach maturity, unless development:

- a. Would result in the removal of one or more trees in the interests of good arboricultural practice. This shall be demonstrated by the developer following the advice of a suitably qualified person which shall be guided by BS 5837 (2012). Details of any advice received having regard to BS 5837 (2012) shall be submitted, in writing, as part of a planning application; or*
- b. Would enhance the survival and growth prospects of other protected trees;*
- c. The benefits of the proposed development in a particular location outweigh the loss of trees or woodland, especially ancient woodland.*

Where planning permission is granted in any of the above instances, conditions shall be used to ensure that, for any trees which are removed as part of a development, at least an equivalent number of a similar species and age (where practical) are planted on the proposed development site. Sufficient space for replacement trees to mature without causing future nuisance or damage shall be provided. The planting of new trees shall form an integral part of the design of any development scheme. Proper provision must be made for the protection and management of trees or areas of woodland on-site when undertaking development. A management plan shall be provided as part of a planning application in accordance with BS 5837 (2012) in order to ensure that trees are adequately protected during development and appropriately maintained in the future. Conditions for the continued protection of trees on sites shall be included in any planning permission given. Where there are existing trees on or adjacent to a development site, developers shall be required to provide:

- d. Land and tree surveys*
- e. A tree constraints plan*
- f. An arboricultural impact assessment to include a tree protection plan and arboricultural method statement*

These will ensure that development is planned to take a comprehensive view of tree issues at an early stage in the design process and that development works do not have a negative impact on existing trees.

3.7 Policy ENV DM5 Development and biodiversity states that:

Development schemes shall, in the first instance, seek to achieve a net gain in biodiversity and protect existing habitats on site. They shall also however incorporate elements of biodiversity including green walls, roofs, bat and bird boxes as well as landscape features minimising adverse impacts on existing habitats (whether designated or not). Development schemes shall also be appropriately designed to facilitate the emergence of new habitats through the creation of links between habitat areas and open spaces. Together, these provide a network of green spaces which serve to reconnect isolated sites and facilitate species movement. Where there is evidence of a protected species on a proposed development site, planning applications shall include a detailed survey of the subject species, with details of measures to be incorporated into the development scheme to avoid loss of the species. This involves consideration of any impacts that will affect the species directly or indirectly, whether within the application site or in an area outside of the site, which may be indirectly affected by the proposals. All surveys shall be carried out at an appropriate time of year and shall be undertaken by a qualified and, where appropriate, suitably licensed person. All developments shall have regard to Natural England's standing advice for protected species.

3.8 Policy GI SP1 Green Infrastructure and development states:

The existing Green Infrastructure Network, as shown on the Green Network Maps for each parish and town, must be considered at an early stage of the design process for all major development proposals.

All major development must be designed to protect and enhance existing Green Infrastructure assets, and the connections between them, in order to ensure a joined up Green Infrastructure Network. The Green Infrastructure Network must be protected from light pollution to ensure that areas defined by their tranquillity are protected from the negative effects of light in development.

Where compatible with nature conservation objectives, development proposals must identify opportunities to connect existing Green Infrastructure assets with the coast, the South Downs National Park or to the District's inland villages. Opportunities to enhance the network should take account of the multiple functions of Green Infrastructure assets and should be based upon those opportunities set out in the supporting text.

Legislation

- 3.9 Legislation relating to wildlife and biodiversity of particular relevance to this EclA includes:
- The Conservation of Habitats and Species Regulations 2017;
 - The Wildlife and Countryside Act 1981 (as amended);
 - The Natural Environment and Rural Communities (NERC) Act 2006;
 - The Hedgerow Regulations 1997;
 - The Protection of Badgers Act 1992;
 - The Wild Mammals (Protection) Act 1996.
- 3.10 All species of bat and their roosts are protected under The Conservation of Habitats and Species Regulations 2017 and The Wildlife and Countryside Act 1981. It is an offence to intentionally kill, injure or handle a bat, to possess a bat (live or dead), disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.
- 3.11 All UK bird species are protected against disturbance whilst occupying a nest under the Wildlife and Countryside Act 1981. Developments that could predictably disturb, kill or injure nesting birds could result in an offence. Furthermore, a number of bird species are targets of UK and Local Biodiversity Action Plans and listed as Species of Principle Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. This obligates local authorities to have regard to the purpose of conserving biodiversity with particular emphasis on targeted species.
- 3.12 All widespread reptiles are protected against killing and injury under the Wildlife and Countryside Act 1981, with rarer reptiles receiving further protection under EU regulation. Reptiles must also be given consideration under the NERC Act 2006 as part of the planning process.
- 3.13 Great crested newts (GCN) are protected under The Conservation of Habitats and Species Regulations (as amended) 2017. It is an offence for anyone to intentionally kill, injure or disturb a GCN or to damage, destroy or block access to areas of suitable habitat.
- 3.14 In the UK, dormice are legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and have significant further protection as a European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended). Dormice are also a 'Species of Principal Importance for the conservation of biodiversity' listed under section 41 of the Natural Environment and Rural Communities Act 2006 (NERC). It is an offence for anyone to intentionally kill, injure or disturb a dormouse or to damage, destroy or block access to areas of suitable habitat.
- 3.15 Badgers are protected under the Protection of Badgers Act 1992. It is an offence to harm badgers or disturb badgers and their setts.
- 3.16 Water voles are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 and is a priority conservation species. It is an offence to intentionally capture, kill or injure water

voles, damage, destroy or block access to their places of shelter or protection (on purpose or by not taking enough care), disturb them in a place of shelter or protection (on purpose or by not taking enough care), possess, sell, control or transport live or dead water voles or parts of them (not water voles bred in captivity).

- 3.17 All other mammals receive general protection against cruelty, inhumane killing or injuring under the Wild Mammals (Protection) Act 1996.
- 3.18 The Environment Act (2021) mandates development projects to provide a Biodiversity Net Gain (BNG), which is set at 10% above baseline levels. The mandatory biodiversity net gain as set out in the Environment Act applies in England by amending the Town & Country Planning Act.

4.0 Methodology

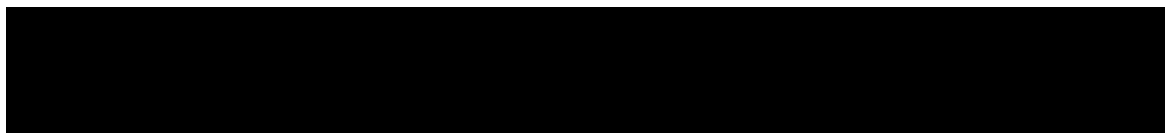
Desktop Study

- 4.1 A desktop study was conducted using the government 'MAGIC' Map GIS tool; a search was carried out for all international statutory designated sites (Ramsar, SAC, SPA) within 12.0 km of the site; national statutory designated sites (SSSI, NNR, LNR) within 2.0 km of the site; and the Chichester District Interactive Map reviewed for non-statutory designated sites (SNCI), sections of the Bat Movement Network, and priority habitats within 1.0 km of the site. Any sites of relevance to the proposals are summarized below and their significance considered in the context of the development proposals. Given the nature of the proposals only sites which might be impacted are considered below and this is not an exhaustive list of all sites.
- 4.2 The site is not considered suitable to support any protected species and lies within a residential area. It was considered that provision of local records data would not provide any significant additional detail or certainty with regards to the application. This is in accordance with current best practice in such situations.
- 4.3 A search was carried out to identify features of ecological interest in the area, such as water bodies and ancient woodland.

Site Visit

- 4.4 A site visit was conducted on 17th October 2024 during suitable conditions (10°C, no rain with light cloud cover and a light breeze). Habitats were recorded broadly according to the UK-Habs Classification System as described within the UK Habitats Manual v2.01 (UKHab Ltd 2023). All habitats present on-site were recorded on a UKHab map (*Figure No. 01 – Site Habitat Plan*).
- 4.5 During the survey any constraints with regard to protected species were considered; potential for impacts upon protected species even when evidence of such was not noted at the time of survey.
- 4.6 Points of interest for protected species have been plotted into the Site Habitat Plan and within target notes. Protected and Notable Species considered as part of this assessment include but are not limited to:

- *Bats – foraging, commuting, roosting, swarming and hibernating;*



- *Dormice Muscardinus avellanarius – nesting and commuting;*
- *Great Crested Newts Triturus cristatus and other Amphibians such as Common Toads Bufo bufo – terrestrial active and hibernation habitat and aquatic habitat, including commuting;*
- *Birds – nesting, foraging and wintering;*
- *Reptiles – terrestrial active and hibernation habitat;*

- *Rare or Notable Invertebrates;*
- *Rare or Notable Plants;*
- *Water Voles Arvicola amphibius – foraging and shelter habitats;*
- *Otters Lutra lutra – foraging and shelter habitats;*
- *White-clawed Crayfish Austropotamobius pallipes;*

- 4.7 The structure and trees were inspected for features conducive to bat and bird roosting. The bat roost assessment was conducted following the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines (2023). Any evidence of bats such as grease marks, bat droppings, feeding remains and suitable cavities were noted.
- 4.8 Structures were assigned levels of bat roost suitability, ranging between negligible and high for buildings. Trees are assessed either as having no suitability, PRF-I (only able to support individual bats) and PRF-M (being able to support larger numbers of bats and therefore maternity colonies).
- 4.9 Due to the site visit being carried out over one day, it is possible that some signs of protected species may not be apparent within this short timeframe. This is a constraint recognised within the Survey Guidelines and all reasonable effort has been made to identify evidence of protected species. The further revisits added certainty to the original findings.

Bat Emergence Surveys

- 4.10 A pair of bat emergence surveys were undertaken on 18th May and 15th June 2025 in accordance with the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines Fourth (2023) Editions, and the Interim Guidance on the Use of Night Vision Aids (2022). Given the size of the buildings, and the relative potential for bats (with no evidence of any bat roost), two surveys were considered sufficient. Four surveyors undertook the first survey, and three surveyors the second, assisted by 4-5 night-vision aids (NVAs). This level of effort was considered more than sufficient to undertake a detailed survey of the entire building.
- 4.11 The dusk emergence survey began c.20 minutes before sunset and continued until c.1.5 hours after.

Table 1 – Summary of Bat Surveys

Date	Sunset	Start	End	Weather Conditions - Start	Weather Conditions - End	Emergences
18 th May 2025	20:49	20:29	22:19	13°C, BF.1, Okt.1, RH70%	9.2°C, BF.2, Okt.1, RH89%	No
15 th June 2025	21:20	21:00	22:50	20.4°C, BF.2, Okt.1, RH56%	15.3°C, BF.2, Okt.1, RH77%	No

- 4.12 A combination of Canon XA40-XA60 NVAs, each with 2 Nightfox XB5 Pro IR torch illuminators and one larger Raytec 12v illuminator were used to improve coverage, better vision later into the survey and the ability to review potential emergencies. A Pifxra Arc A613 thermal imager was also used on one survey to provide further confidence in the results.
- 4.13 The surveyors and NVAs thoroughly covered the survey area and the likelihood of bats being missed is very low. The survey was designed by a licenced bat ecologist with multiple years' survey experience (George Sayer BSc (Hons) MCIEEM, Level 2 Bat Licence 2018-34434). Surveys were led by Aidan Bird, who has at least 8 years of experience in bat surveys and is accredited agent under George Sayer's level 2 Bat Licence.
- 4.14 Bat detection was carried out using Echo Meter Touch 2 Pro Full Spectrum Recording Bat Detectors, with analysis of recordings carried out where necessary on Kaleidoscope software. Infrared camera footage was reviewed at between 0.8-1.5x speed on VLC media player where necessary.
- 4.15 The weather conditions were optimal and the survey was conducted at an optimal time of year to detect bat presence. No constraints were encountered.

Ecological Impact Assessment

- 4.16 The methodology for Ecological Impact Assessment (EcIA) follows best practice guidelines set by the Chartered Institute of Ecology & Environmental Management (CIEEM): 'Guidelines for Ecological Impact Assessment' (CIEEM, 2018). This includes identifying the baseline conditions on the site and subsequently rating the potential effects of the development based on the sensitivity and value of the resource affected, combined with the magnitude, duration and scale of the impact (or change). This is initially assessed without mitigation measures, and then assessed again after allowing for the proposed mitigation measures; this provides the residual effects. The assessment is divided into construction effects and longer-term operational effects.
- 4.17 Each ecological feature within the site has been considered within a defined Geographic context such as:
- International and European;
 - National;
 - Regional;
 - County;
 - District;
 - Local;
 - Site Level;
 - Negligible.

4.18 Based upon CIEEM guidance, value was determined with reference to the following factors:

- Its inclusion as a Designated Site or other protected area;
- The presence of habitat types of conservation significance, e.g. Habitats of Principal Importance (NERC 2006);
- The presence (or potential presence) of species of conservation significance e.g. Species of Principal Importance (NERC 2006);
- The presence of other protected species e.g. those protected under The Wildlife and Countryside Act 1981;
- The sites social and economic value.

4.19 Specifically in the case of bats, the impact assessment has been conducted in accordance with the recently published Bat Mitigation Guidelines (Reason and Wray 2023). Other relevant guidelines such as the Dormouse Conservation Handbook, Great Crested Newt Mitigation Guidelines and Froglife Advice Sheet for Reptiles were consulted as appropriate.

5.0 Baseline Ecological Conditions

Desktop Study

Designated Sites and Habitats within 12.0km

- 5.1 The following information is included so that the site can be considered within the ecological context of the surrounding area, guiding decisions related to habitat change and protected species; these sites are not necessarily representative of the habitat on or surrounding the site and may not be influenced by the proposals.

Table 1: Statutory Protected Designated Sites Within the Zone of Influence

Site Name	Reason for designation	Distance from site
<i>Bognor Reef SSSI</i>	<i>This site comprises a long stretch of foreshore of great geological interest and an extensive area of vegetated shingle, a habitat type which is rare in Britain. At the western end is a small area of old sand dune with an interesting flora including a specially protected species listed on Schedule 8 of the Wildlife and Countryside Act 1981.</i>	<i>0.8km S</i>
<i>Pagham Harbour RAMSAR, SSSI, SPA, LRN</i>	<i>An estuarine harbour with shingle beaches, intertidal mudflats and saltmarsh, giving way to brackish marsh supporting reedbeds and damp pasture. The site includes a nationally important vegetation community and small amounts of ancient woodland. Nationally and internationally important numbers of wintering or breeding waterbirds or waders use the site such as brent goose, common tern, little tern and ruff.</i>	<i>1.4km W</i>
<i>Chichester and Langstone Harbours RAMSAR, SPA, SSSI</i>	<i>Chichester Harbour is a large estuarine basin in which at low water extensive mud and sandflats are exposed, drained by channels which unite to make a common exit to the sea. The site is of particular significance for wintering wildfowl and waders and also breeding birds both within the Harbour and in the surrounding permanent pasture fields and woodlands. There is a wide range of habitats which have important plant communities. The site supports nationally and internationally important numbers numerous goose, wader, tern and duck species such as brent goose, redshank, sandwich tern and wigeon.</i>	<i>7.0km NW</i>
<i>Solent Maritime SAC</i>	<i>The site is the only one in the series to contain more than one physiographic sub-type of estuary and is the only cluster site. The Solent and its inlets are unique in Britain and Europe for their hydrographic regime of four tides each day, and for the complexity of the marine and estuarine habitats present within the area.</i> <i>Solent Maritime is the only site for smooth cord-grass <i>Spartina alterniflora</i> in the UK and is one of only two sites where significant amounts of small cord-grass <i>S. maritima</i> are found. It is also one of the few remaining sites for Townsend's cord-grass <i>S. x townsendii</i>.</i> <i>The Solent contains the second-largest aggregation of Atlantic salt meadows in south and south-west England. Solent Maritime is a composite site composed of a large number of separate areas of saltmarsh.</i>	<i>11.1km NW</i>

- 5.2 The site lies within 5.0 km of Pagham Harbour and therefore will be required to pay a contribution of £950 per new unit to contribute towards strategic access management measures in accordance with the Local Plan policy ENV DM2.

Habitats

Desk Study

- 5.3 Within 1.0km of the site there are Priority Habitats of coastal vegetated shingle and coastal sand dunes. No priority habitats are located close to the site.

Site Assessment

- 5.4 The site is given over to the following habitats.

U1b5 – Building

- 5.5 The main house (B1) is of brick and pebbledash render construction. It has a gabled roof laid with clay tiles.
- 5.6 A timber garage (B2) was noted with a pitched corrugated metal roof and a timber summerhouse (B3) with pitched felt roof and large windows. A timber workshop/large shed (B4) of timber with a pitched felt roof is also present. Overall, the buildings are of ‘negligible’ ecological value. Their potential to support protected species is discussed further within the report.

G4 828 847 32 41 – Modified grassland vegetated garden with introduced shrubs, scattered trees and pond

- 5.7 The majority of the site consists of well managed modified grassland. Species composition appeared low, consisting primarily of perennial ryegrass *Lolium perenne*. Patches of shrubs such as *Berberis sp.* are noted. The habitats offer ‘negligible’ value.
- 5.8 A water lily was noted within a small pond. Surrounding the pond the pond was a narrow concrete perimeter with small ornamental conifers. The habitats offer ‘site’ value.
- 5.9 A number of fruit trees were noted within the garden. Species noted included cherry *Prunus sp.* and apple *Malus sp.*. The habitats offer ‘site’ value.

U1d 829 - Unvegetated garden with introduced shrubs

- 5.10 A number of introduced shrubs were noted in pots and along the boundaries, sited on areas of gravel, paving and decking. Species noted included palm sp. *Arecaceae sp.*, Japanese maple *Acer palmatum* and rhododendron *Rhododendron sp.*. The habitats offer ‘negligible’ value.
- 5.11 Overall, this habitat was of ‘site’ value only.

H2b – Non-native Hedgerow

- 5.12 The gardens are lined with well-maintained Japanese spindle *Euonymus japonicus* and privet *Ligustrum ovalifolium*. Overall, this habitat was of ‘site’ value only.

6.0 Protected Species Assessment

Bats

Desk Study

- 6.1 1no. granted European Protected Species Licence is noted within a 2.0km radius of the site. The licence (Case Reference: 2017-31088-EPS-MIT) regards the destruction of a resting place for BLE. It was active until 2022.
- 6.2 There are records of Common and Nathusius' pipistrelle *Pipistrellus pipistrellus* and *Pipistrellus nathusii*, serotine *Eptesicus serotinus*, soprano pipistrelle *Pipistrellus pygmaeus* and western barbastelle *Barbastella barbastellus* within a 2km radius.

Site Assessment - Buildings

- 6.3 The exterior of the main house is of redbrick and peddle dash construction. The roof is of clay tile construction.
- 6.4 Externally, a small number of missing tiles were noted. Hanging tiles were noted to the dormer window, which displayed a small number of gaps. The gable end and eaves were tightly sealed. The southern aspect of the house had uPVC fascias which appeared tightly sealed. The rest of the house had wooden fascias and oversailing rafters. No soffit boards were noted.
- 6.5 The internal roof space is of cut rafter construction with bitumen felt and sarking around the dormer window.
- 6.6 Internally, the loft space appeared well sealed with no ingress / exit points noted where light could enter from outside. A single tear in the roofing felt was noted. Several small gaps around the dormer window were noted. No evidence of bats were noted internally or externally.
- 6.7 Overall, due to the numbers of missing tiles and presence of hanging tiles to the dormer, the main house was considered to be of '**moderate**' suitability to roosting bats.
- 6.8 The outbuildings were all of '**negligible**' suitability to bats. The timber summerhouse was a single shell structure. The large windows allowed in light and constant use of the building negates all possibility for bats to be present. The roof is of roofing felt construction with no gaps noted.
- 6.9 The single shell timber garage had a pitched corrugated metal roof whilst the workshop/shed had a pitched timber roof covered in felt. No suitability to roosting bats was noted.

Bat Emergence Surveys

- 6.10 Neither bat emergence survey recorded any emergence from the building. The surveys were conducted at an optimal time of year in suitable conditions and as such are considered to confirm the likely absence of a bat roost in the dwelling. The site offers **negligible value** to roosting bats.

Foraging and Commuting Assessment

- 6.11 The site is surrounded by housing with small gardens. Satellite imagery suggests gardens are mostly of maintained grass lawns with only small areas of shrubbery and hedgerow with limited foraging opportunities. The roads are subject to nighttime lighting from streetlights. Both these factors will reduce the value of the site to foraging and commuting bats.
- 6.12 The bat emergence surveys recorded moderate levels of activity by common and soprano pipistrelle, noctule *Nyctalus noctula* and *Myotis sp.* bats. Bats were generally commuting past the site rather than foraging within the site. The habitats are considered of **site value** to foraging and commuting bats.

Desk Study

- 6.13 Numerous bird species are present in the local area, including those which utilise garden and hedgerow habitats. Species which could utilise the hedgerow and shrub to nest include song thrush (*Turdus philomelos*), blackbird (*Turdus merula*), wren (*Troglodytes troglodytes*) and robin (*Erithacus rubecula*).

Site Assessment

- 6.14 The site provides potential for nesting birds in the boundary hedgerows and to a lesser extent within shrubs and trees. There is also some foraging value on the site within the grass and fruit trees, largely for common garden species.

Reptiles

Desk Study

- 6.15 There are multiple records of reptiles within a 2.0 km radius of the site.

Site Assessment

- 6.16 The potential for reptiles on the site is **negligible** due to the surrounding gardens being divided by close board fencing and the site being well-maintained. Satellite imagery suggests the surrounding properties are all predominantly maintained grassland, which is of little value to reptiles. No reptiles were noted during the survey.

Amphibians

Desk Study

- 6.17 There are no records of Great Crested Newts *Triturus cristatus* (GCN) within the immediate surroundings recorded as part of nearby developments, nor are there any GCN survey or licence returns (positive or negative). No amphibians were noted during the survey.
- 6.18 1no. pond is located onsite. Within a 500.0m radius lie 3 no. further ponds. These ponds are functionally disconnected by domestic properties bound by close board fencing, a series of roads and the Pagham Cricket Club Ground (large field of modified grassland). The closest lies 0.12km south.

Site Assessment

- 6.19 There is some potential for widespread amphibians to be present on site. Similar to reptiles the location of the site is not conducive to allowing amphibians entry. The three ponds noted within 500 meters of the site are both isolated by domestic dwellings with fencing, a series of roads and the Pagham Cricket Club Ground (large field of modified grassland).
- 6.20 The on-site pond is extremely small, ornamental in nature and surrounded by unsuitable habitat. The design of the pond (a deep, concrete pond with lilies) is suggestive of a fish pond. It is highly unlikely that it would or could be used by GCN.
- 6.21 The potential for GCN to be present is **highly unlikely**.

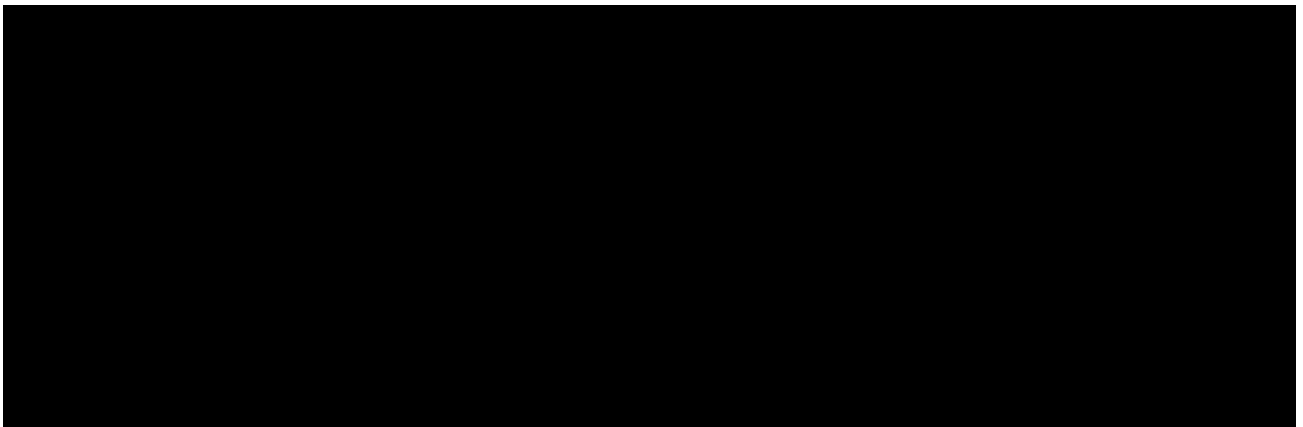
Dormice

Desk Study

- 6.22 NBN Atlas holds no records of dormouse within a 2.0km radius of the site. No European Protected Species Licenses with regards to dormouse have been noted within a 2.0km radius of the site.

Site Assessment

- 6.23 The site offers no value to dormouse. The boundary hedgerows are not connected with wider areas of suitable habitat. Very few food plants for dormouse were noted. Overall, the site is of 'negligible' value to dormouse.



Other

- 6.26 No potential for or evidence of any other protected species such as rare plants was recorded. There is good potential for hedgehogs *Erinaceus europaeus* to forage in the grass garden given its size and the surroundings. No impacts upon other protected species are considered likely and have not been assessed further.

7.0 Evaluation of Impacts and Mitigation

Designated Sites

Potential Impacts

- 7.1 The proposals would not have any direct impact upon statutory sites given its small scale and nature. The site is within the 5.0 km Pagham Harbour Recreational Disturbance Area, whereby increases in overnight accommodation are considered to result in recreational impacts on local designated sites.

Avoidance, Mitigation and Compensation

- 7.2 The site lies outside the nutrient impact zones for the local designated sites. The site lies within 5.0 km of Pagham Harbour and therefore will be required to pay a contribution of £950 per new unit to contribute towards strategic access management measures in accordance with the Local Plan policy ENV DM2.

Habitats

Potential Impacts

- 7.3 The proposals involve the loss of modified grassland, trees, shrubs and a pond. In the absence of mitigation measures there would be a permanent loss of habitat which is of value to a range of species.

Avoidance, Mitigation and Compensation

- 7.4 A Biodiversity Net Gain Assessment details how proposals will achieve the mandatory gains to comply with The Environment Act (2021).
- 7.5 All construction must be undertaken in accordance with best practice advice with regards to control of dust, noise and emissions. No chemicals or fuels shall be stored on open or soft ground. Trees and hedges to be retained must be protected in accordance with British Standard 5837:2012.
- 7.6 To ensure no harm to amphibians and other occupants, the pond shall be hand-emptied. The pond should be emptied in the autumn months when many amphibians are hibernating out of the pond. An ecologist must be present to translocate any wildlife and fish to a suitable location. Biosecurity measures must be taken to prevent spread of any pathogens or other undesirable materials from the pond.

Bats

Potential Impacts

- 7.7 The bat surveys suggest that the site is of some value to commuting bats but little value to foraging bats, and negligible value to roosting bats. In the absence of mitigation, proposals might damage, illuminate or otherwise disturb on and off-site trees and vegetation offering bat foraging/commuting suitability.
- 7.8 No trees offering bat roost suitability would require removal.

Avoidance, Mitigation and Compensation

- 7.9 Works shall be designed to minimise disturbance of any bats which might use the surroundings. No external lighting shall be installed other than minimal downlighting of entrances and the access drive. Such lighting must strictly accord with the BCT/ILP Guidance Note 08/23, with minimal illumination of the boundary vegetation in particular (taken to be no more than 0.2 lux other than for emergency lighting). Construction phase lighting shall not be used.
- 7.10 Trees and hedges to be retained must be protected in accordance with British Standard 5837:2012 as described above.
- 7.11 Replacement planting will be undertaken to compensate for loss of habitats. This is likely to be a combination of on-site enhancements as well as off-site. This is detailed within the Biodiversity Net Gain Assessment.

Nesting Birds

Potential Impacts

- 7.12 Where shrubs and trees are to be removed, there is a likelihood of nesting birds being disturbed if this is done during the nesting season. It is highly unlikely that ground nesting birds would use the site.

Avoidance, Mitigation and Compensation

- 7.13 Any tree, hedge or shrub removal shall be carried out outside of nesting season (March-August inclusive) and in any case shall be preceded by a check to ensure no nests are present. If this is not possible, a more detailed inspection shall be undertaken by a suitable qualified ecologist and dependent on the results of this, monitoring would be necessary by an ecologist to confirm no nests are present or likely to be concealed.
- 7.14 Any active nests must be afforded a 5.0 m buffer from any works, until such time that the chicks within have fledged and the nest is no longer in active use.

Reptiles and Amphibians

Potential Impacts

- 7.15 The clearance of the site to enable construction could harm individual reptiles and amphibians, and result in a loss of reptile and amphibian potential at the site. The risk is very low to reptiles, and low to amphibians at the site level; the overall impact would not extend beyond the individual animals themselves. The risk of disturbing or harming GCN is considered to be 'negligible'.

Avoidance, Mitigation and Compensation

- 7.16 The site is relatively simple in nature with reptile suitable habitats only noted along the margins, where grass and shrubs are less well-kept, and around the pond. As such a careful manual clearance of the habitat, in a directional manner should be sufficient to protect any reptiles present.



Avoidance, Mitigation and Compensation

- 7.18 The contractors will ensure all trenches and footings are covered at night and when the site is unattended or fitted with a shallow angled ramp to allow any trapped animals to escape.

Other

Potential Impacts

- 7.19 In the absence of mitigation there is a low risk of hedgehogs being disturbed, especially if materials are not stored properly in the garden.

Mitigation and Compensation

- 7.20 All materials shall be stored on hard surfaces or pallets, and any piles of aggregates, timber etc. checked for presence of hedgehogs before removal.

Residual Impacts

- 7.21 The overall impact of the scheme will be negligible.

8.0 Ecological Enhancements

8.1 In accordance with current Local Plan Policy, the proposals must achieve mandatory BNG and should aim to achieve other gains. The most beneficial enhancements would involve the following:

- Integration of at least 1no. bat box into each dwelling;
- Installation of 1no. bird box into each dwelling, preferably a mixture of features suited to swifts, house sparrows and other passerines;
- Any communal or boundary vegetation should consist of native species including fruit or nut producing species for birds;
- Night scented species such as honeysuckle should be planted to gardens, to increase bat foraging potential;
- Addition of bee bricks to the dwellings;
- Planting of native trees and hedges within and between gardens.

9.0 Conclusions

- 9.1 The proposal area consists of a domestic dwelling with summerhouse, workshop and garage. The garden is dominated by modified grassland. Gravelled areas with plant pots were also noted. The boundary was lined with introduced shrubs, with a small number of fruit trees at the back of the garden. The boundaries were lined predominantly with non-native hedgerows.
- 9.2 The dwelling offered '**moderate**' value for roosting bats within the main house. However, bat emergence surveys have identified the **likely absence of a bat roost**. The outbuildings were of '**negligible**' suitability to bats.
- 9.3 The site boundaries offered very limited potential for amphibians. The site is highly unlikely to be of value of GCN and reptiles. No evidence of badger was noted onsite. The majority of the site provides limited foraging and nesting habitat for birds. Bird nesting potential was limited to the boundary vegetation.
- 9.4 No significant effects are anticipated upon designated sites, provided the standard mitigation for recreational impacts are provided. When mitigation has been taken into account, the proposals are not considered to have a negative impact upon designated sites, habitats or protected species.
- 9.5 A Biodiversity Net Gain Assessment is included as part of the application to confirm how ecological gains will be achieved.

10.0 References

- Bat Conservation Trust (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines. Third Edition. Available online: <http://www.bats.org.uk/pages/batsurveyguide.html>
- Bat Conservation Trust and Institution for Lighting Professionals (BCT/ILP, 2023). Bats and Artificial Lighting at Night. Available online: <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>
- British Standards Institution. (2013). BS 42020:2013 Biodiversity – Code of practice for planning and development. London: BSI Joint Nature Conservation Committee (JNCC 2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. Available online: <http://jncc.defra.gov.uk/page-2468>
- CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- CIEEM (2020) Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management. Winchester, UK.
- CIEEM (2021) Bat Mitigation Guidelines, Beta Version 1.0. Chartered Institute of Ecology and Environmental Management, Winchester.
- CIEEM (2022) Guidelines for Ecological Impact Assessment, 1st edition, Revision 1.02. Chartered Institute of Ecology and Environmental Management, Winchester.
- Joint Nature Conservation Committee (JNCC 2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. Available online: <http://jncc.defra.gov.uk/page-2468>
- MAGIC Interactive Map Tool (Accessed 20th November 2024): www.magic.gov.uk
- Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.
- Streeter, D. (2010). The Most Complete Guide to the Flowers of Britain and Ireland; Harper Collins, London.
- UK Hab Ltd. (2023). The Habitat Classification Version 2.0. Available online: <https://www.ukhab.org>

11.0 Appendix A - Site Photos

The main house viewed from the south.



The main house viewed from the west.



View inside the loft.



View of the small timber garage.



View of the small timber summer house.



The timber workshop/shed.



View of the garden with fruit trees and hedgerow.



View of unvegetated garden and greenhouse.



View of potted plants on unvegetated garden.



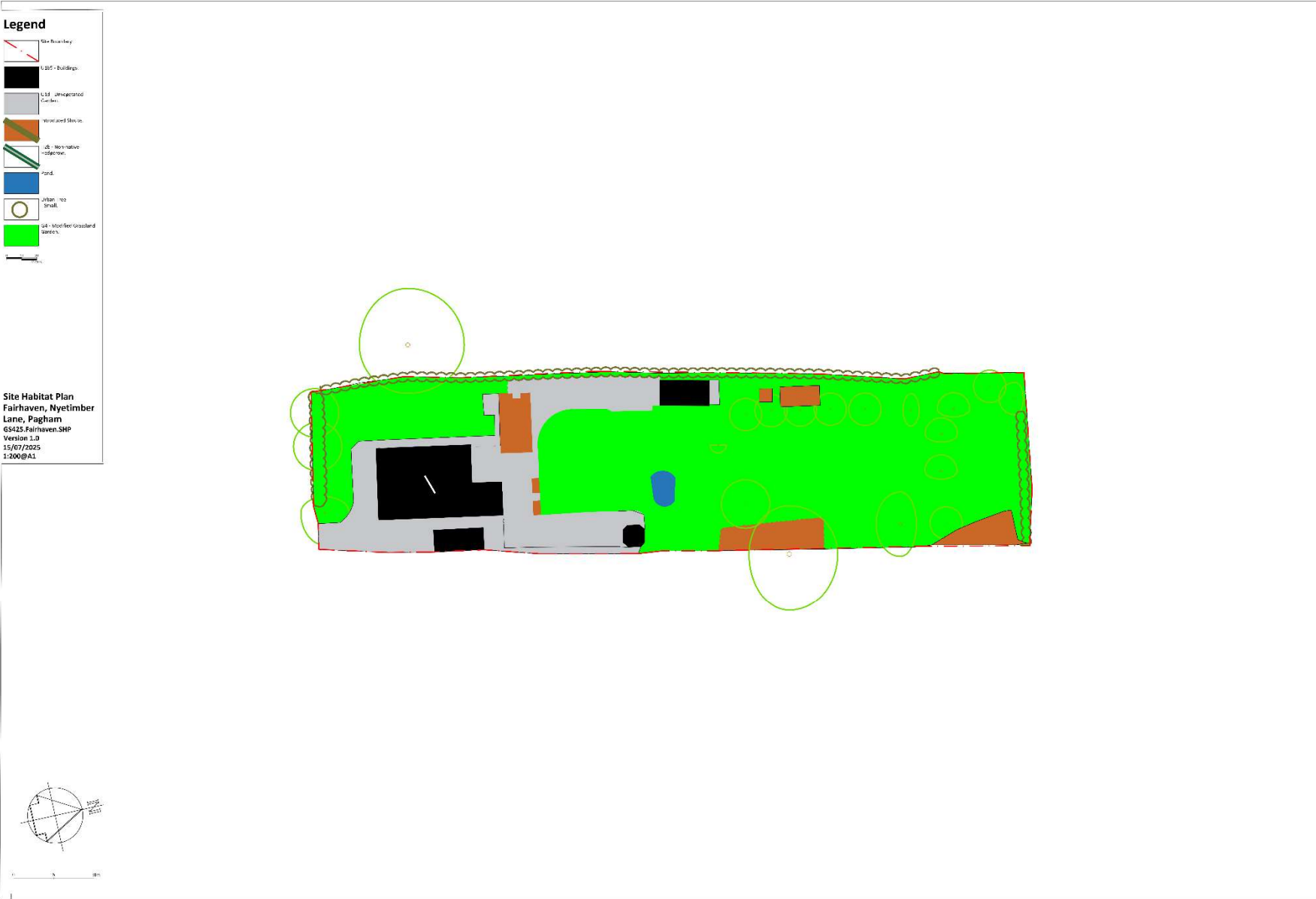
Small garden pond.



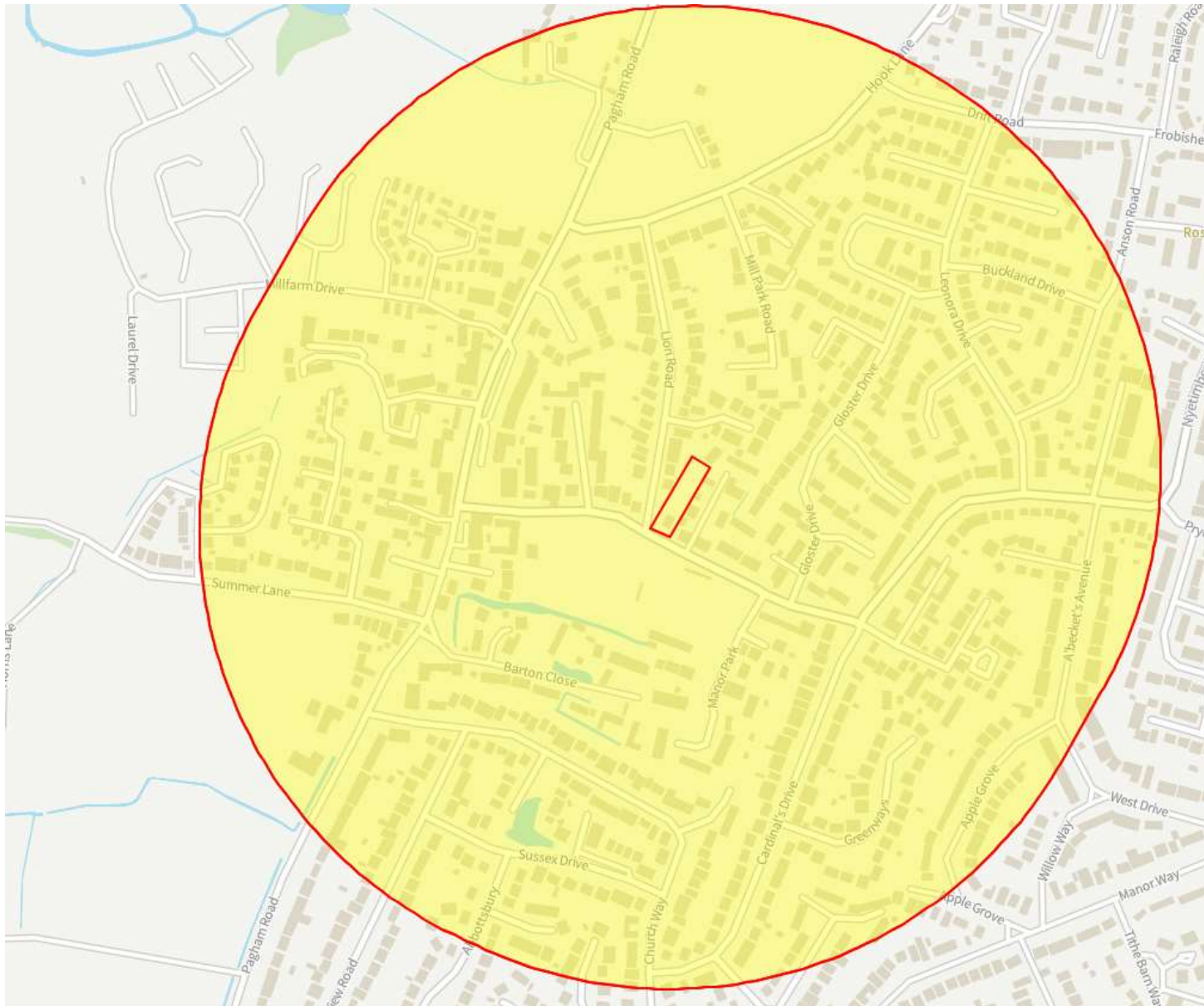
12.0 Figure No. 01 – Site Aerial



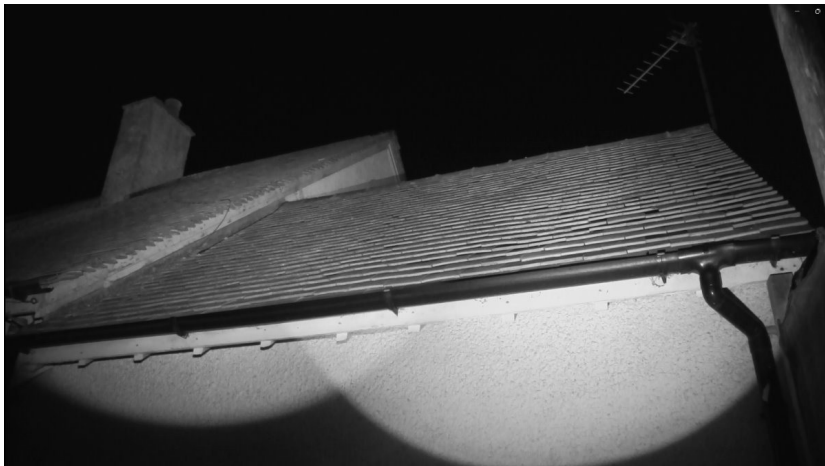
13.0 Figure No. 02 – Site Habitat Plan



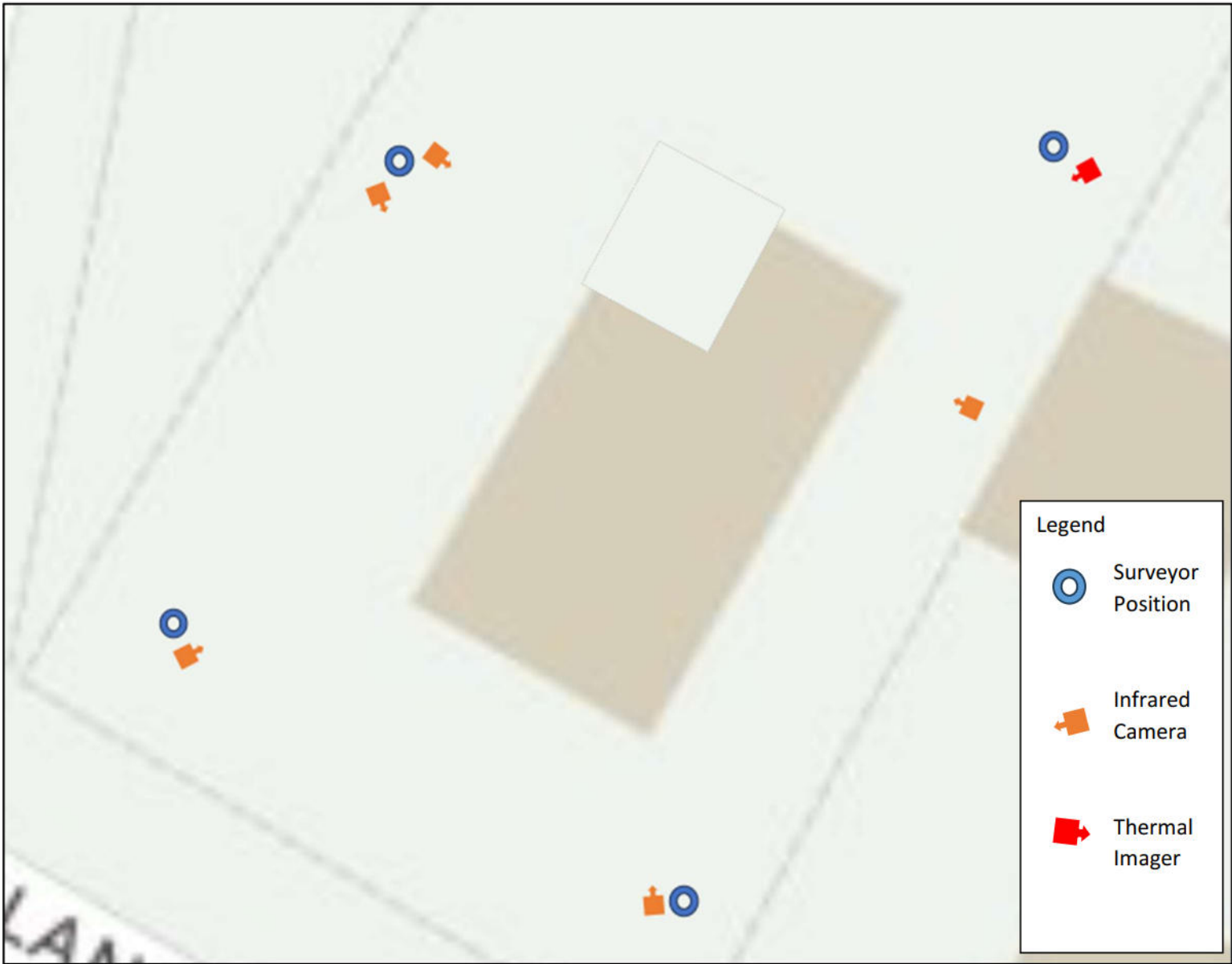
14.0 Figure No. 03 - Pond Locations



15.0 Figure No. 04 – Night Vision Stills from Bat Emergence Surveys



16.0 Figure No. 05 – Bat Emergence Survey Plan (visit 1, 18th May 2025)



17.0 Figure No. 06 – Bat Emergence Survey Plan (visit 2, 15th June 2025)

