

Construction Environmental Management Plan (CEMP)

Land at Chanctonbury Nursery, Ashington

Ecosupport Ltd
K4 Keppel,
Daedalus Park,
Lee-on-the-Solent
PO13 9FX

info@ecosupport.co.uk

VAT: 228 4314 18

ecosupport

Report	CEMP (Biodiversity) (Condition 5)
Site Name	Land at Chanctonbury Nursery, Ashington
Author(s)	Louise Davies BSc (Hons)
Checked By	Adam Jessop MSc MCIEEM
Client	Elivia Homes
Date of Issue	3rd May 2024
Status	***For submission***

Table of Contents

1.0 INTRODUCTION 5

1.1 BRIEF 5

1.2 SITE DESCRIPTION & LOCATION 5

1.3 AIM 6

2.0 ECOLOGICAL BASELINE 7

2.1 HABITATS 7

2.1.1 w1g – Other Broadleaved Woodland (12 scattered bracken) *7*

2.1.2 Modified Grassland (12 scattered bracken, 81 ruderal or ephemeral, 510 bare ground) *7*

2.1.3 h3h – Mixed Scrub *8*

2.1.4 r1g – Other Standing Water (50 ditch) *9*

2.1.5 u1f – Sparsely Vegetated Urban Land (16 tall forbs, 81 ruderal or ephemeral) *9*

2.1.6 h2b – Non-Native and Ornamental Hedgerow *9*

2.1.7 u1b - Developed Land; Sealed Surface *9*

2.1.8 u1b5 - Buildings *9*

2.2 BATS 10

2.2.1 Data Search *10*

2.2.2 Roosting Bats (Buildings) *10*

2.2.3 Foraging and Commuting *11*

[redacted] 11

2.3.1 Data Search *11*

2.3.2 Previous Survey Work *11*

2.3.3 Updated Survey Work *11*

2.4 REPTILES 12

2.4.1 Data Search *12*

2.4.2 Previous Survey Work *12*

2.4.3 Updated Site Assessment *13*

2.5 GREAT CRESTED NEWTS 13

2.5.1 Data Search *13*

2.5.2 Waterbodies within 250m *14*

2.5.3 Site Assessment and Evaluation *14*

2.6 HAZEL DORMICE 15

2.6.1 Data Search *15*
2.6.2 Previous Survey Work *16*
2.6.3 Updated Walkover *17*
2.6.4 Evaluation *17*
2.7 NOTABLE AND BIRDS OF CONSERVATION CONCERN (BOCC) 17
2.7.1 Data Search *17*
2.7.2 Site Assessment and Evaluation *17*
2.8 HEDGEHOGS 18
2.8.1 Data Search *18*
2.8.2 Site Assessment *18*
2.9 DESIGNATED SITES 18

3.0 RISK ASSESSMENT 19

3.1 CONSTRUCTION ACTIVITIES 19
3.2 BATS 19
3.2.1 Roosting *19*
3.2.2 Foraging and Commuting *19*
[redacted]
3.4 REPTILES 19
3.5 GREAT CRESTED NEWTS 20
3.6 HAZEL DORMICE 20
3.7 NOTABLE AND BIRD OF CONSERVATION CONCERN (BOCC) 20
3.8 HEDGEHOGS 20

4.0 SPECIES SPECIFIC MITIGATION 21

4.1 BATS 21
4.1.1 Roosting Bats – Building 3 ..... *21*
4.1.3 Site Design *24*
4.1.4 Habitat Buffers & Dark Corridor *26*
4.1.5 Sensitive Lighting *26*
[redacted]
4.2.1 Precautionary Working Measures *28*
4.2.2 Avoidance of Harm *29*
4.2.3 Compensatory Habitat *29*
4.3 REPTILES 29

4.3.1 Mitigation Strategy Overview *29*
4.3.2 Receptor Site *29*
4.3.3 Capture and Exclusion *32*
4.4 Great Crested Newts (GCN) 34
4.4.2 Enhancements *35*
4.5 Hazel Dormice 35
4.5.1 EPS Licence *35*
4.5.2 Single Stage Clearance *36*
4.5.3 Protecting Retained Features *37*
4.5.4 Minimising Operational Impacts *37*
4.5.5 Compensation *37*
4.4.6 Protection of Hazel Dormouse Habitat *38*
4.6 Notable and Birds of Conservation Concern 38
4.6.1 Mitigation *38*
4.6.2 Compensation *39*
4.6.3 Enhancements *39*
4.7 Hedgehogs 40
4.7.1 Avoidance of Harm *40*
4.7.2 Compensation *40*
4.8.3 Enhancements *40*
4.8 Protection of Woodland, Hedgerows and Trees 41

5.0 BIODIVERSITY PROTECTION ZONES 42

5.1 Fencing and Signage 42
5.2 Lighting 43

6.0 RESPONSIBILITIES 44

6.1 Key Roles 44
6.2 Training Awareness and Competence 45
6.3 Line of Communication Regarding Ecological Issues 45

7.0 REFERENCES 46

1.0 INTRODUCTION

1.1 Brief

Ecosupport Ltd were commissioned by Elivia Homes to produce a Construction Environmental Management Plan (CEMP) (Biodiversity) for the development of a site called 'Land at Chanctonbury Nursery' in Ashington.

This report has been produced to satisfy Condition 5 of the planning approval (DC/22/0372), requiring the production of a Construction Environmental Management Plan (CEMP) (Biodiversity):

> *5. Pre-Commencement Condition: No development shall commence until a construction environmental management plan (CEMP: Biodiversity) has been submitted to and approved in writing by the local planning authority. The CEMP (Biodiversity) shall include the following;*
>
> *a) Risk assessment of potentially damaging construction activities.*
> *b) Identification of "biodiversity protection zones".*
> *c) Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction (may be provided as a set of method statements).*
> *d) The location and timing of sensitive works to avoid harm to biodiversity features.*
> *e) The times during construction when specialist ecologists need to be present on site to oversee works.*
> *f) Responsible persons and lines of communication.*
> *g) The role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person.*
> *h) Use of protective fences, exclusion barriers and warning signs. The approved CEMP shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the local planning authority*
>
> *Reason: To conserve protected and Priority species and allow the LPA to discharge its duties under the Conservation of Habitats and Species Regulations 2017 (as amended), the Wildlife & Countryside Act 1981 (as amended) and s40 of the NERC Act 2006 (Priority habitats & species).*

1.2 Site Description & Location

The site is dominated by hardstanding and buildings with scrub, ruderal vegetation, hedgerows and woodland edge habitat also present. The site is located at the Land at Chanctonbury Nursery, Ashington, RH20 3AS (centred on OS grid reference TQ 12658 16331) (**Fig 1**). The immediate wider environ is semi-rural comprising of grassland and agricultural fields, pockets of woodland and the small residential area of Ashington.

Figure 1. Site boundary (Google Satellite, 2024).



1.3 Aim

The aim of the CEMP is to protect the ecological interests on the site. This report details the approach which construction workers will adopt in dealing with the potential ecological impacts associated with various construction activities. The approved CEMP shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the local planning authority.

2.0 ECOLOGICAL BASELINE

2.1 Habitats

Further information regarding the ecological baseline for the site is detailed within the accompanying Biodiversity Enhancement Strategy / Landscape and Ecological Management Plan (Ecosupport Ltd., 2024). A summary of those features with the potential to be impacted by the development has been provided in the below sections.

2.1.1 w1g – Other Broadleaved Woodland (12 scattered bracken)

The western, southern and eastern boundaries of the site were bordered by broadleaved woodland with a number of trees falling within the site boundary (**Fig 2**). The understorey predominantly comprised of herbaceous species and scrub with a patch of Bracken (*Pteridium aquilinum*) (secondary habitat code 12) also present at the eastern end of the woodland adjacent to the southern boundary of the greenhouses.

Figure 2. Woodland present in the south-eastern corner of the site (taken March 2024).



2.1.2 Modified Grassland (12 scattered bracken, 81 ruderal or ephemeral, 510 bare ground)

Modified grassland was present in the south-western corner of the site and along the southern boundary adjacent to the woodland edge (**Fig 3**). The vegetation cover was somewhat patchy and interspersed with bare ground (secondary habitat code 510) comprising predominantly of low growing species (secondary habitat code 81). A patch of Bracken (*Pteridium aquilinum*) (secondary habitat code 12) was also present at the eastern end of the grassland adjacent to the southern boundary of the greenhouses.

Figure 3. Modified grassland with ruderal and ephemeral vegetation present in the south-western corner of the site (taken March 2024).



2.1.3 h3h – Mixed Scrub

Mixed scrub was present both to the north and south of the small track providing access to the property to the north-east of the site (**Fig 4**). The scrub was primarily comprised of Pussy Willow (*Salix caprea*) and Blackthorn saplings with Bramble, Willowherb (*Epilobium* spp.), Dock and Hazel also noted to be present.

Figure 4. Mixed scrub present in the north of the site (taken March 2024).



2.1.4 r1g – Other Standing Water (50 ditch)

A ditch holding a small amount of water was present within the largest parcel of mixed scrub on site.

2.1.5 u1f – Sparsely Vegetated Urban Land (16 tall forbs, 81 ruderal or ephemeral)

The majority of the site comprised of somewhat broken up tarmac / gravel with a mixture of low growing (secondary habitat code 81) and taller vegetation (secondary habitat code 16) present (**Fig 5**).

Figure 5. Sparsely vegetated urban land present centrally on site (taken March 2024).



2.1.6 h2b – Non-Native and Ornamental Hedgerow

Two Leylandii hedgerows were present along the western boundary of the site and in the north-eastern corner of the site.

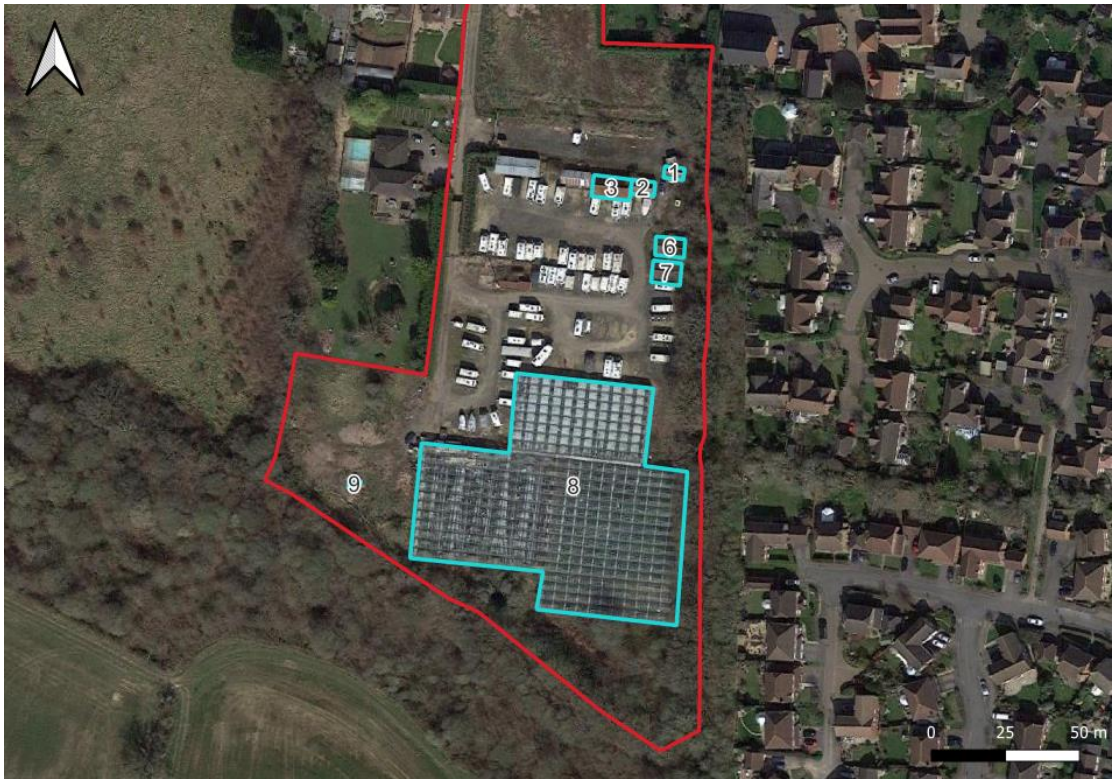
2.1.7 u1b - Developed Land; Sealed Surface

A tarmac track provided access into the site running from the northern boundary down to the greenhouse at the south of the site.

2.1.8 u1b5 - Buildings

A total of 7 buildings were present on site comprising a mix of storage buildings, a greenhouse and a small utilities building (locations are indicated in **Fig 6** below).

Figure 6. Location of the 7 buildings still present on site (Buildings 4 and 5 are not indicated as these had become completely dilapidated and collapsed) (Google Satellite, 2024).



2.2 Bats

2.2.1 Data Search

SxBRC provided the following bat records from within 2km of the site: Bat (*Chiroptera)* (1 record), Serotine (*Eptescus serotinus*) (5 records), Brandt's Bat (*Myotis brandtii*) (1 record), Noctule (*Nyctalus noctula*) (4 records), Pipistrelle species (*Pipistrellus spp.*) (1 record), Common Pipistrelle (*Pipistrellus pipistrellus*) (14 records), Soprano Pipistrelle (*Pipistrellus pygmaeus*) (4 records), Long-Eared Bat species (*Plecotus spp.*) (6 records), and Brown Long-Eared Bat (*Plecotus auritus*) (16 records).

2.2.2 Roosting Bats (Buildings)

2.2.2.1 Previous Survey Work

Batscan Ltd. (2020) conducted Preliminary Roost Assessments of the buildings on site during July and August 2020 with two emergence surveys subsequently conducted in July and September 2020 covering Buildings 1, 2 and 3. Buildings 1 and 2 were considered to be of moderate and low potential for roosting bats, respectively, however no bats were recorded to emerge. During the internal inspection, a single Brown Long-Eared bat was noted to be roosting within Building 3 with hundreds of droppings also noted within the building. A single Brown Long-Eared was then suspected to have emerged from Building 3 during the emergence survey with this building consequently considered to be a Brown Long-Eared day roost.

2.2.2.2 Updated Survey Work

Given the presence of a Brown Long-Eared day roost within Building 3, this building was subject to an updated Preliminary Roost Assessment across the 20th March and 10th April 2024. Droppings were still noted to be present, with these confirmed via DNA analysis to be Brown Long-Eared droppings, however no bats were seen during the internal inspection (Ecosupport Ltd., 2024)**.** With regard to the other buildings on site, Buildings 1, 2, 6, 7, 8 and 9 were noted to be in much the same condition as was described by Batscan Ltd. (2020) and had been scoped out previously or were subject to emergence surveys with no bat roosts recorded to be present. Buildings 4 and 5 were noted to have completely collapsed.

2.2.3 Foraging and Commuting

2.2.3.1 Previous Survey Work

Batscan Ltd. (2020) conducted two walked transects across the site on the 26th July 2020 and the 5th September 2020. Overall, activity was considered to be relatively low with Common Pipistrelles, Soprano Pipistrelles, Serotine and Brown Long-Eared bats recorded. Calls were dominated by Common Pipistrelles with their activity noted to be higher on the September survey. The majority of the bat activity was concentrated within the northern portion of the site.

2.2.3.2 Updated Site Assessment

During the updated walkover in 2024, it was noted that the habitats on site were broadly the same as those recorded during the 2020 walkover with the only slight change comprising the establishment of more scrub in the northern part of the site. Given that the north of the site was already identified as a valuable area of the site for bats, it is considered that the survey work to date provides an accurate reflection of the bat population on site and that further survey work would be unlikely to produce contrasting results. Therefore, the site is still considered to be ***"important for foraging bats at the site level"*** (The Ecology Co-op, 2021).

[redacted]

[redacted]

[redacted]



2.4 Reptiles

2.4.1 Data Search

SxBRC returned the following reptile records from within 2km of the site: Slow-Worm (*Anguis fragilis*) (16 records), Grass Snake (*Natrix helvetica*) (22 records), and Common Lizard (*Zootoca vivipara*) (6 records). This included 1 record of Grass Snake and 1 record of Slow Worm from 2015 located within the site itself.

2.4.2 Previous Survey Work

During the walkover in 2020, The Ecology Co-op (2021) noted suitable reptile habitat in the form of unmanaged grassland and scrub-grassland interfaces. Consequently, a reptile presence / likely absence survey was conducted with 7 survey visits undertaken between 10th September and the 29th September 2020. This survey identified a ***low population of Slow Worms*** with a peak count of 2 adult Slow Worms. *"Slow worms were mostly found in the larger*

area of grassland in the northern half of the site although slow worms were also identified in the south-west corner and along the northern boundary." (The Ecology Co-op, 2021).

2.4.3 Updated Site Assessment

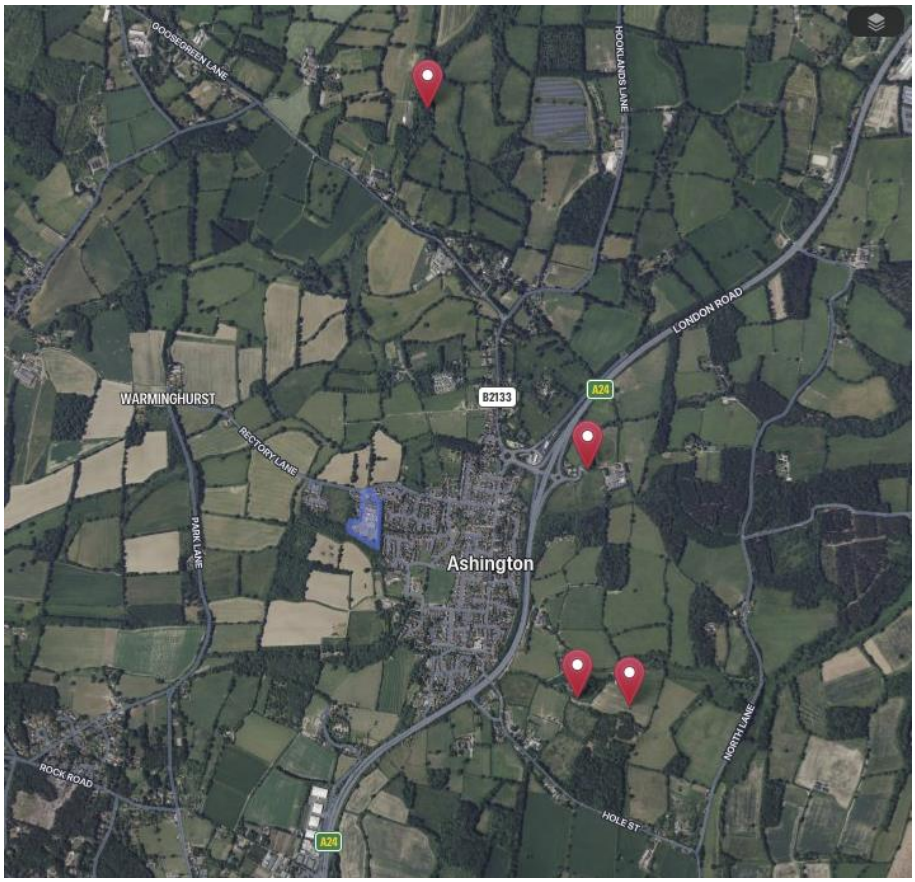
During the updated walkover in 2024, it was noted that the habitats on site were broadly the same as those recorded during the 2020 walkover with the only slight change comprising the establishment of more scrub in the northern part of the site. Therefore, it is considered that the amount of reptile habitat on site is largely the same as it was previously and that the survey work to date provides an accurate reflection of the reptile population on site. As stated by The Ecology Co-op (2021), given the very low number of Slow Worms identified, *"the development site is not considered important to slow worms beyond the* ***site level****."*

2.5 Great Crested Newts

2.5.1 Data Search

SxBRC returned 4 records of Great Crested Newts (*Triturus cristatus*) from within 2km of the site however 3 of these were separated from the site by the A24 with the final record in excess of 1.8km away (**Fig 8**).

Figure 8. Great Crested Newt records located within 2km of the site (Google Satellite, 2024).



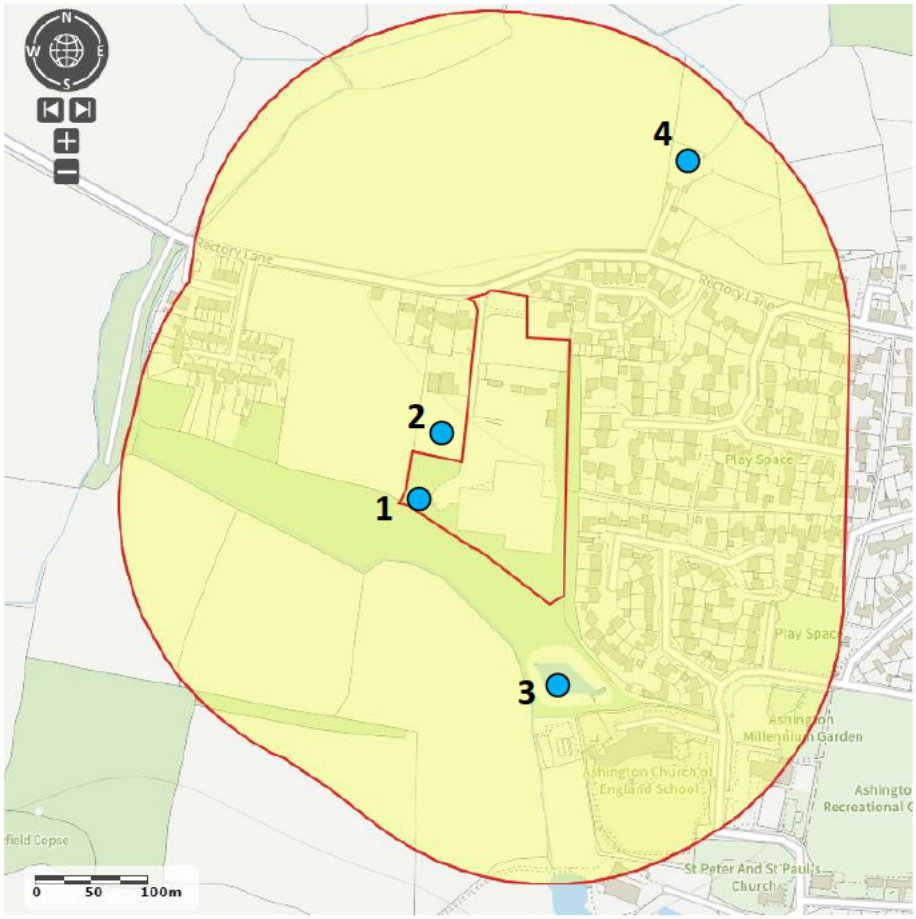
2.5.2 Waterbodies within 250m

The Ecology Co-op (2021) identified 3 ponds within 250m of the site. Following a review of OS mapping and aerial imagery, an additional pond was identified approximately 180m to the north-east of the site (**Fig 9**).

Subsequently the Ecology Co-op (2021) undertook assessments of the ponds. *"Pond 1 was identified as a depression in the ground within the site that was unlikely to hold water unless from excessive flooding. No further surveys were required. Ponds 2 and 3 underwent HSI Assessments and scored average and good suitability scores. Both ponds underwent e-DNA surveys on the 30th June 2020 and both were returned as negative."*

Upon visiting the site in 2024, Pond 1 still appeared to be more of a shallow depression and did not hold water despite recent prolonged rainfall. It was not possible to attain access to Pond 4 in order to conduct an assessment.

Figure 9. Location of the 4 waterbodies within 250m of the (Magic Maps, 2024).



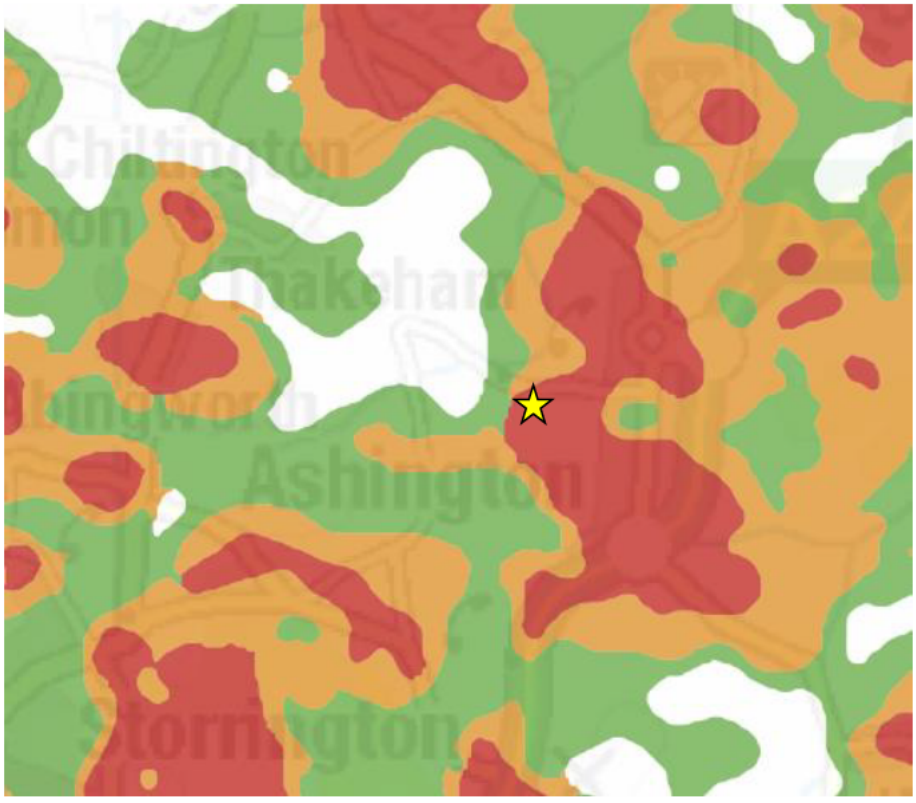
2.5.3 Site Assessment and Evaluation

During the updated walkover in 2024, it was noted that the site does offer some limited suitable terrestrial habitat for GCN. The woodland understorey, ruderal / ephemeral habitat and scrub-grassland interfaces on site do provide some of the structure and heterogeneity

required by GCN (Edgar *et al.,* 2010). Using the NatureSpace Partnership (2022) 'Horsham District Council – Impact Risk Zones' map (**Fig 10**), the site does also appear to at least partially fall within the red impact risk zone (although the resolution of the map is not entirely clear).

Nevertheless, the eDNA surveys conducted by The Ecology Co-op (2021) during 2020 confirmed the likely absence of GCN from Ponds 2 and 3 located adjacent to the site. Pond 4 could not be accessed and, based on the available information, it is therefore considered that the site offers ***low potential*** for GCN and it will not be necessary to register the site for District Level Licensing through the NatureSpace Partnership or conduct further GCN surveys. Instead, it is considered proportionate to employ a Precautionary Working Method Statement (PWMS) as detailed within **Section 3.4.**

Figure 10. Screenshot from the Horsham District Council – Impact Risk Zones map (NatureSpace Partnership, 2022) – approximate site location indicated by yellow star.

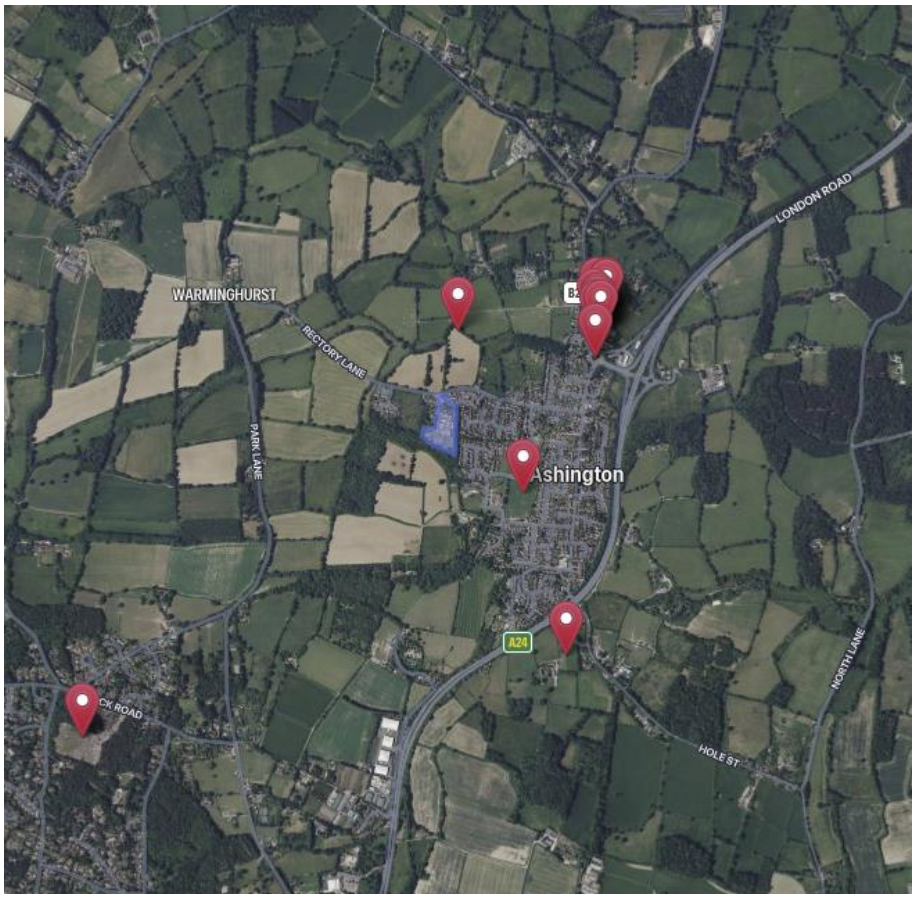


2.6 Hazel Dormice

2.6.1 Data Search

SxBRC returned 29 records of Hazel Dormouse from within 2km of the site with the closest of these being located approximately 130m to the east of the site (**Fig 11**).

Figure 11. Hazel Dormouse records located within 2km of the site (Google Satellite, 2024).



2.6.2 Previous Survey Work

Due to the presence of suitable Hazel Dormouse habitat on site in the form of woodland and mixed scrub along with the presence of nearby records, The Ecology Co-op (2021) conducted a nest tube survey on site. 41 nest tubes were deployed throughout the boundary habitats on site and checked monthly between September 2020 and June 2021. A summary of the results is provided below (**Fig 12**):

"Evidence of dormice in the form of nesting material was identified during the September 2020 check in nest tube 32. During the October check, an individual dormouse was found within a nest in tube 29 and nuts chewed by dormice were identified within tube 28 during the November check. All three tubes are located within the southern boundary habitat. No further evidence was identified during the April, May or June checks in 2021." (The Ecology Co-op, 2021).

Figure 12. Location of Dormouse evidence identified during the survey on site (blue = nest material, yellow = individual dormouse present, green = chewed nuts) (Google Satellite, 2024).



2.6.3 Updated Walkover

During the updated walkover in 2024, it was noted that the habitats on site were broadly the same as those recorded during the 2020 walkover with the only slight change comprising the establishment of more scrub in the northern part of the site. Therefore, it is considered that the amount of Dormouse habitat on site is largely the same as it was previously and that the survey work to date provides an accurate reflection of the Dormouse population on site.

2.6.4 Evaluation

As described by The Ecology Co-op (2021), *"The survey checks have **confirmed the presence of dormice** within the southern boundary of the site and therefore dormice are assumed to be present in all boundary habitat. Based on the habitats present on site and the availability of higher value woodland habitat to the south, **the site is considered to be of value to dormice at the local level.**"*

2.7 Notable and Birds of Conservation Concern (BoCC)

2.7.1 Data Search

SxBRC returned 437 records of 38 notable bird species from within 2km of the site. Within this, there were 9 species listed on Schedule 1 of the Wildlife and Countryside Act (1981) as well as 6 species of Red conservation concern including Swift (*Apus apus*), Nightingale (*Luscinia megarhynchos*), Mistle Thrush (*Turdus viscivorus*), and Barn Owl (*Tyto alba*).

2.7.2 Site Assessment and Evaluation

Based on the 2020 and 2024 walkovers, much of the site is unsuitable for nesting birds (sparsely vegetated land, short grassland) although it does provide some suitable nesting opportunities around its boundaries within woodland edge habitat and scrub. It is also important to note that Buildings 1, 2, 3, 6 and 7 offer potential nesting opportunities within

their loft spaces, eaves and rafters. Nevertheless, *"Based on the habitats available upon the site and the availability of higher value habitats in the surrounding area, it is considered to be of* ***value for breeding birds at site level."*** (The Ecology Co-op, 2021).

2.8 Hedgehogs

2.8.1 Data Search

SxBRC returned 19 records of West European Hedgehog (*Erinaceus europaeus*) from within 2km of the site.

2.8.2 Site Assessment

The scrub and ruderal / ephemeral vegetation on site offers suitable habitat for Hedgehogs and, given the presence of local records, it is considered that the site holds ***potential*** for foraging and commuting Hedgehogs.

2.9 Designated Sites

Details of the designated sites lying within 2km of the site are provided within the accompanying BES / LEMP (Ecosupport Ltd., 2024) however, given that the closest site is 750m away, it is considered they will not be impacted by the construction phase of the development and it is therefore not necessary to address them within this report.

3.0 RISK ASSESSMENT

3.1 Construction Activities

Construction activities are expected to comprise of the following:

- Demolition of existing structures
- Vegetation clearance and topsoil stripping
- Excavations
- Movement of materials
- Foundations
- Building erection
- Infrastructure and landscaping
- Installation of drainage

The below sections outline the risk of potential adverse impacts on protected species as a result of the construction activities taking place on site.

3.2 Bats

3.2.1 Roosting

Building 3 has been identified as a Brown Long-Eared day roost. In accordance with the UK Bat Mitigation Guidelines (Reason and Wray, 2023), the day roost would be considered to be of ***SITE*** conservation significance and therefore of ***SITE VALUE*** (as Brown Long-Eared bats are a 'widespread' species in Southern England) using the CIEEM valuation criteria for bat roosts (Reason and Wray, 2023). Furthermore, building 1 and buildings 2 and 9 were noted to support some Potential Roost Features (PRFs) for roosting bats. Therefore, the demolition of B3 would result in the loss of a bat roost with some precautionary measures required for B1, B2 and B9. In the absence of mitigation, ***an adverse impact is certain*** at the ***site level.***

3.2.2 Foraging and Commuting

The site has been identified as being of ***site importance*** for foraging and commuting bats. The works will result in the loss of a portion of the foraging resources on site (scrub and a small area of woodland) and may result in disruption to commuting routes (from external lighting). Therefore, in the absence of mitigation, ***an adverse impact is likely*** at the ***site level.***

[redacted]

3.4 Reptiles

A low population of Slow Worms is present on site and they will be directly impacted upon by the proposed development due to the removal of suitable habitat (scrub and ruderal / ephemeral vegetation). Without mitigation procedures put in place, this would result in the direct harm of individuals and a reduction in the site population. This would therefore be

contrary to the provisions of the Wildlife & Countryside Act (1981) and, in the absence of mitigation, ***an adverse impact is certain*** at the ***site level.***

3.5 Great Crested Newts

The site offers low potential for GCN and the proposed development will result in the loss of some areas of suitable habitat (scrub and ruderal / ephemeral vegetation). In the event that GCN are present, the works could result in the killing and or injuring of newts. Therefore, in the absence of mitigation, ***an adverse impact is possible*** at the ***local level.***

3.6 Hazel Dormice

The presence of Dormice was established on site and some areas of suitable habitat (mixed scrub and a small area of woodland) will require removal in order to deliver the development. Without mitigation procedures put in place, this would result in the direct harm of individuals and a reduction in the local population. This would therefore be contrary to the provisions of the Conservation of Species and Habitats Regulations (2019). Furthermore, introduction of artificial lighting to the site may disrupt usage of retained Dormouse habitat around the boundaries of the site. Therefore, in the absence of mitigation, ***an adverse impact is certain*** at the ***local level.***

3.7 Notable and Bird of Conservation Concern (BoCC)

The site is considered to be of value to breeding birds at the site level and some areas of suitable habitat (in the form of mixed scrub and trees) will require removal in order to deliver the development. This has the potential to directly impact nests and / or create disturbance. Therefore, in the absence of mitigation, ***an adverse impact is possible*** at the ***site level.***

3.8 Hedgehogs

The site is considered to hold potential for foraging and commuting Hedgehogs. Construction works may entail the creation of excavations which may lead to entrapment. Therefore, in the absence of mitigation, ***an adverse impact is possible*** at the ***site level.***

4.0 SPECIES SPECIFIC MITIGATION

The following species-specific mitigation will be included within the proposed development, as described within the BES / LEMP for the site (Ecosupport Ltd., 2024).

Below includes a summary of the mitigation required, whilst the exact details of the mitigation must be adhered to according to the aforementioned report.

4.1 Bats

4.1.1 Roosting Bats – Building 3

Building 3 has been identified as a Brown Long-Eared day roost. In accordance with the UK Bat Mitigation Guidelines (Reason and Wray, 2023), the day roost would be considered to be of ***SITE*** conservation significance and therefore of ***SITE VALUE*** (as Brown Long-Eared bats are a 'widespread' species in Southern England) using the CIEEM valuation criteria for bat roosts (Reason and Wray, 2023).

4.1.1.1 EPS Licence

All works that affect the bat roost carried out on Building 3 must take place under an EPSL obtained from Natural England and the destruction of the roost and capture of bats (if required) will need to be carried out under the supervision of a licensed Ecologist. All works would be detailed within the EPSL Method Statement required as part of the license application.

4.1.1.2 Updated Emergence Surveys

For the purposes of informing the EPS licence, updated emergence surveys will be undertaken for Building 3. As per **Table 1** below, three separate dusk emergence surveys will be conducted between May and September with at least two surveys between May and August. This will include the use of NVA's (Night Vision Aid) to cover the entire building.

Table 1. Recommended minimum number of survey visits (from Table 7.1, BCT 2023).

Low Roost Suitability	Moderate Roost Suitability	High Roost Suitability / Known Roost
One dusk emergence survey visit between May – August.	Two separate dusk emergence survey visits between May – September, with at least one between May – August. Surveys must be three weeks apart.	Three separate dusk emergence survey visits between May – September, with at least two between May – August. Surveys must be three weeks apart.

Nevertheless, given that no bats or fresh droppings were identified within the loft space of Building 3 during the updated inspection in 2024, it is considered unlikely that the status of the roost will have changed. Therefore, the below sections detail the appropriate mitigation strategy for the Brown Long-Eared day roost identified within Building 3.

4.1.1.3 Timing

Given that the roost present is a day roost, no specific timing restrictions are required under the Bat Mitigation Guidelines (Reason, P.F. and Wray S., 2023). However, given that Long-Eared bats may use summer sites well into the Autumn and even over Winter, it is recommended that works avoid the hibernation period (November – March), when bats are in a torpid state and therefore more vulnerable (Reason, P.F. and Wray S., 2023). Works will take place in suitable weather conditions (i.e. when overnight temperatures do not drop below 8 degrees immediately prior to or after works to the roost take place) as defined by best practice guidance (Mitchell-Jones et al. 2004).

4.1.1.4 Supervision

Prior to any works getting underway the licensed bat worker will give a Toolbox talk which will detail best practice methods of sensitive stripping/removal of roofing tiles/materials (including the roof lining), as well as the sensitive dismantling of any other features considered suitable for roosting bats. Personnel will be educated on signs of bats and that, in the unlikely event a bat is found whilst the licensed ecologist is not on site, that **all works should stop immediately** until the licensee returns to site.

The licensed bat worker will then assist contractors with the removal of construction materials surrounding the roost and any other areas which are considered to be high risk for roosting bats.

4.1.1.5 Capture (if required)

If during the sensitive removal of construction materials bats are discovered, the supervising ecologist will place the individuals into a holding bag (a soft cloth bag with closure-strings and with seams on the outside (Mitchell-Jones and McLeish, 2004)) to ensure the bat keeps calm and will not take flight during daylight hours. They will then immediately transport the bat to the mitigating bat box where the bat will be released and left undisturbed. During this time, the licensed bat worker will be wearing appropriate bat handling gloves to ensure the bat does not come to any harm. The licensed bat worker will have ample experience in handling a variety of bats and is confident in doing so.

4.1.1.6 Bat Boxes

Prior to any works getting underway 1 No. Vivara Pro Large Multi-Chamber bat box (**Fig 13**) will be erected on a suitable mature tree on site. This box is designed as a summer roosting space for various species of bats, including Brown Long-Eareds. The bat box maintains a stable temperature inside and is painted black to absorb warmth. The box should be erected 3-6m high and in an open, sunny position (preferably facing a southern direction). Once the works have been completed these boxes should be left in perpetuity to provide additional long-term enhancements for local bats.

Figure 13. The Large Multi Chamber Bat Box to be erected on site (NHBS, 2023).



4.1.1.6 Roost Compensation

BatScan Ltd. (2020) recommended the installation of a like-for-like replacement building in order to compensate for the loss of the 1 No. Brown Long-Eared day roost within Building 3. However, the most up to date Bat Mitigation Guidelines (Reason, P.F. and Wray S., 2023) indicate that compensation for a roost of 'site value' is flexible with no requirement for a like-for-like replacement. Therefore, given that Building 3 supported a Brown Long-Eared Day roost with a max. count of 1 individual recorded to be present, it is considered more proportionate to retain the mitigatory bat box (detailed in **Section 4.1.1.5**) in situ.

4.1.1.7 Bitumen Roofing Felt

Within the building which holds the compensatory bat loft, bitumen roofing felt will be utilised as opposed to Breathable Roof Membrane (BRM) as there is evidence to suggest that BRM poses a threat to bats occupying a structure due to entanglement in the fibers (Natural England, 2015). This will be particularly important as bat access tiles are being proposed.

4.1.1.8 Monitoring and Maintenance

The Bat Mitigation Guidelines (Reason & Wray, 2023) do not recommend further conditions in relation to the post development monitoring of bat roosts of low conservation significance. However, a compliance check will be carried out to ensure all agreed mitigation and compensation techniques have been implemented.

4.1.2 Buildings 1, 2 and 9

During the emergence surveys conducted by BatScan Ltd. (2020) in 2020, no bats were recorded to emerge from buildings 1 and 2. The updated internal inspection in 2024 revealed no evidence of roosting bats and the condition of the buildings was noted to be the same as described in 2020. Nevertheless, given the time that has elapsed since the emergence surveys were undertaken and due to the presence of potential roosting features, it is considered appropriate to implement a Precautionary Working Method Statement for the demolition of

these buildings. Similarly, given the dilapidated nature of Building 9 and the very limited number of potential roosting features, emergence surveys were not considered appropriate and, instead, the below outlined Precautionary Working Method Statement will be adhered to.

4.1.2.1 Precautionary Working Method Statement

- Prior to any internal or external construction starting onsite, all construction personnel will receive a toolbox talk from a licensed ecologist (or someone acting as an accredited agent) regarding bats and their awarded level of protection (along with an indication of the PRFs identified on Buildings 1, 2 and 9). This will outline safe working practices to minimise the chances of bats being present during the works and how to proceed if a bat is discovered during the course of the work.
- Once the toolbox talk is complete, the ecologist will undertake an updated internal and external inspection of Buildings 1, 2 and 9 (the use of a hand held endoscope may also be required) to confirm the building is in a similar state of repair and the continued absence of any direct evidence of bat occupation.
- Works will be undertaken slowly, by hand and with care. This will include taking such precautions as removing roof tiles and timber cladding carefully and checking for the presence of bats before being discarded. The ecologist will oversee all critical works taking place to the identified roosting features.
- In the unlikely event that any bats are found at any point any during the development, all works must cease immediately and a European Protected Species Licence would likely be required from Natural England in order to allow works to proceed further. Contractors are forbidden to handle bats discovered during the development process (should any bats be found whilst Ecosupport staff are not on-site, they will be contacted immediately).
- A copy of this PWMS will be kept on-site throughout the duration of the works.

4.1.3 Site Design

While a small area of woodland in the south-eastern corner of the site must be removed to facilitate the development, a continuous length of woodland is due to be retained around the boundaries of the site and its understorey will be enhanced with native shrub planting. Furthermore, the Leylandii hedgerow in the northern portion of the site where bat activity was concentrated is due to be retained along with the mixed scrub along the northern boundary of the site which is set to be reinforced to form a native hedgerow. Together, these features form a continuous route around the site offering excellent commuting opportunities for bats. A SuDS feature is also proposed in the south-eastern corner of the site which will increase invertebrate biomass and provide further opportunities for foraging bats along with the proposed extensive tree planting across site (as per **Fig 14** below).

Fig 14. Features to enhance / mitigate for impacts to bats designed into the scheme (layout provided by ECE Architecture, 2021).



4.1.4 Habitat Buffers & Dark Corridor

As recommended by The Ecology Co-op (2021) and indicated in **Fig 14** above, dark corridors will be maintained along the northern boundary hedgerows and wooded boundaries of the site within which there will be no lighting and light spill from adjacent areas will be maintained at or below 0.4 Lux. Furthermore, the SuDS feature in the south-eastern corner of the site will be incorporated within the dark corridor to provide a valuable foraging area for bats (**Fig 14**).

These measures will limit disturbance to foraging and commuting bats as a result of artificial lighting and maintain connectivity along the key commuting routes on site.

4.1.5 Sensitive Lighting

4.1.5.1 Lighting - Site Construction

In order to avoid any disturbance to bats (and other nocturnal wildlife such as Dormice [redacted] construction works should be limited to daylight hours and should not be undertaken 30 minutes prior to dusk through to dawn. All lighting should be sensitive to the use of the site by nocturnal wildlife as per the guidelines described in **Section 4.1.5.2.**

4.1.5.2 Lighting - Site Operation

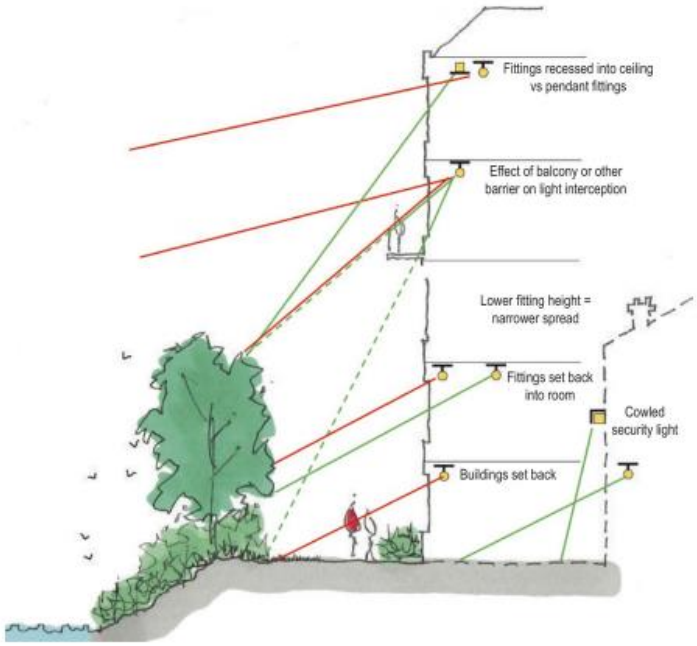
It is recommended that any lighting implemented on site complies with the following the newly published *Guidance Note 08/23 Bats and Artificial Lighting at night* (ILP / BCT, 2023) produced via a collaboration between the Institute of Lighting Professionals (ILP) and the Bat Conservation Trust (BCT), which outlines the latest recommendations to minimise the impacts of increased artificial lighting on bats. The key recommendations within this document have been outlined below and will be implemented as far as is practicable:

'Light sources, lamps, LEDs and their fittings come in a myriad of different specifications which a lighting professional can help to select. However, the following should be considered when choosing luminaires and their potential impact on Key Habitats and features:

- *All luminaires will lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used*
- *LED luminaires will be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability*
- *A warm white light source (2700Kelvin or lower) will be adopted to reduce blue light component*
- *Light sources will feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012)*
- *Internal luminaires can be recessed (as opposed to using a pendant fitting - See **Fig 15**) where installed in proximity to windows to reduce glare and light spill*
- *Waymarking inground markers (low output with cowls or similar to minimise upward light spill) to delineate path edges (see Case Study 1)*
- *Column heights will be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards*

- *Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered - See ILP GN01*
- *Luminaires will always be mounted horizontally, with no light output above 90° and/or no upward tilt*
- *Where appropriate, external security lighting will be set on motion sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate*
- *Use of a Central Management System (CMS) with additional web-enabled devices to light on demand Use of motion sensors for local authority street lighting may not be feasible unless the authority has the potential for smart metering through a CMS*
- *The use of bollard or low-level downward-directional luminaires is strongly discouraged. This is due to a considerable range of issues, such as unacceptable glare, poor illumination efficiency, unacceptable upward light output, increased upward light scatter from surfaces and poor facial recognition which makes them unsuitable for most sites. Therefore, they should only be considered in specific cases where the lighting professional and project manager are able to resolve these issues. See Case Study 6*
- *Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed. However, due to the lensing and fine cut-off control of the beam inherent in modern LED luminaires, the effect of cowls and baffles is often far less than anticipated and so should not be relied upon solely'*

Figure 15. Internal lighting mitigation options (ILP, 2023).



4.1.5 Bat Boxes

As stipulated by The Ecology Co-op (2021), "at least 15 artificial bat boxes must be erected" onto retained mature trees on site with approximate locations indicated in the appended **Enhancement Plan**):

- 5 No. Vivara Pro Harlech WoodStone bat box (**Fig 16**)
- 5 No. Vivara Pro Miramare Large WoodStone bat box (**Fig 16**)

- 5 No. Vivara Pro Large Multi Chamber WoodStone bat box (**Fig 16**)

Figure 16. Vivara Pro Harlech WoodStone bat box (left), Miramare Large WoodStone bat box (centre) and Large Multi Chamber Woodstone bat box (right) to be erected on mature trees on site (NHBS, 2024).



The woodcrete bat boxes will be erected by or under the supervision of an ecologist to ensure they are placed in the most appropriate / effective locations.

4.1.6 Bat Bricks

Half of the new dwellings will have a single Ibstock (or similar) bat brick integrated into the gable ends of the dwellings (37 No. in total). These features are entirely self-contained and available in a variety of different colours to match different construction materials. Ideally these boxes should be located away from windows and positioned in order to benefit from some degree of sunlight exposure (see the appended **Enhancement Plan** for approximate locations).

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

4.3 Reptiles

4.3.1 Mitigation Strategy Overview

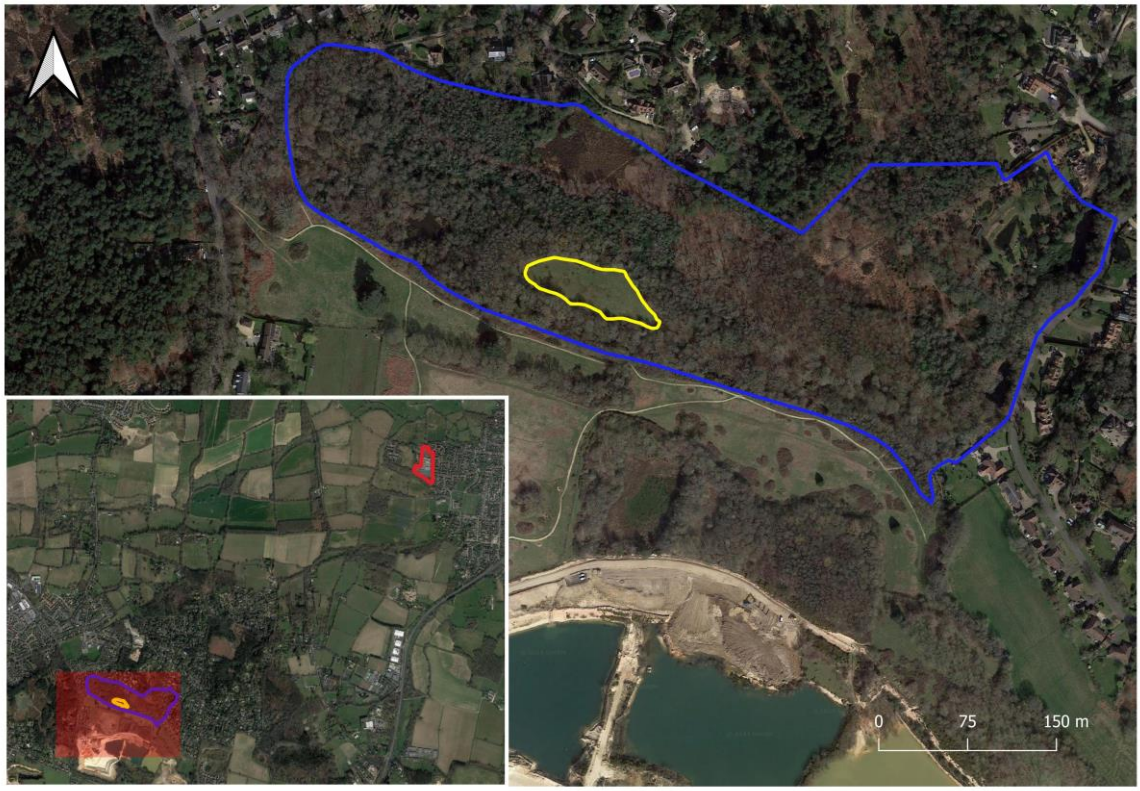
Despite the planned creation of various semi-natural habitats as part of the development, given the number of units that need to be delivered on site and the extent of the reptile habitat being lost, it is not considered to possible to provide a reptile receptor of sufficient size to support the low population of Slow Worms identified on site. Therefore, as recommended by The Ecology Co-op (2021), an *ex-situ* relocation scheme will be required.

4.3.2 Receptor Site

4.3.2.1 Receptor Location and Suitability

An off-site reptile receptor has been agreed within Sandgate Park, Storrington, Pulborough, RH20 3LY which is located approximately 2.9km away from the development site. This area is a country park (so will benefit from protection from future development threats) and is being managed for local biodiversity interests. Following on from discussions with Andrew Rodgers at Horsham District Council, the below area (**Fig 17**) was considered suitable as a receptor with it offering approximately 1.5 acres of meadow habitat and connectivity into wet and dry heathland areas. Furthermore, observation data from across Sandgate Park between 1973 and 2019 indicate existing populations of Slow Worm, Grass Snake, Common Lizard and Adder to be present, providing further evidence that the site is suitable for reptiles.

Figure 17. Approximate location of the off-site reptile receptor area at Sandgate Park (yellow) and the approximate wider extent of the country park (blueline) (Google Satellite, 2024).



4.3.2.2 Receptor Enhancement

Due to the existing reptile population within the reptile receptor, several enhancements will be implemented in order to increase the carrying capacity of the habitats at Sandgate Park. 1 No. wood-based hibernaculum will be created as per **Fig 18 by HDC countryside services.** Furthermore, a number of trees along the southern boundary of the meadow will be removed in order to let in more sunlight and increase the total area of suitable reptile habitat. Funding for these enhancements has been agreed (**Fig 19**) and will be provided by Elivia Homes. This will need to be secured via a s106 agreement or similar.

Figure 18. Reptile hibernaculum design as provided in HART (2009).

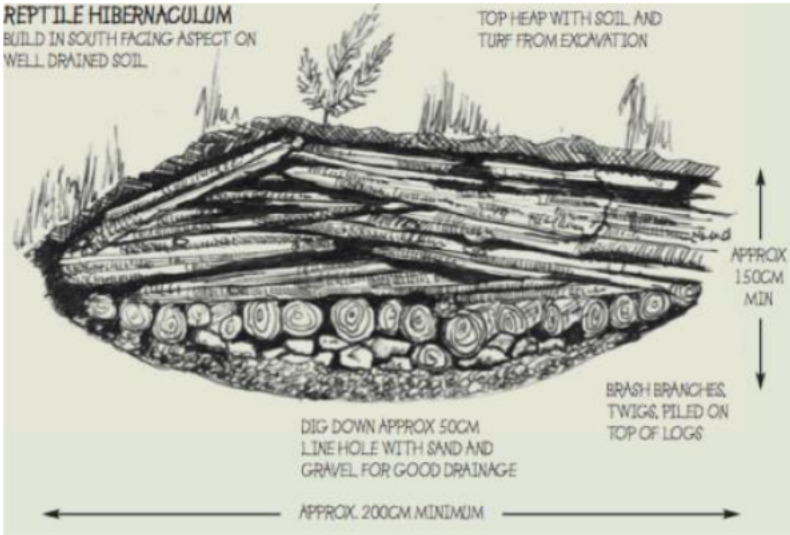


Figure 19. Evidence of funding agreement between Horsham District Council and Elivia Homes (Horsham District Council, 2024).

Horsham District Council

Louise Davies
Ecosupport Ltd

18/04/2024

Gary Ross
Elivia Homes

Horsham District Council would be happy for Elivia Homes to use Sandgate Park as their reptile receptor site. Reptiles will be released into the suitable meadow habitat at Sandgate Park.

It has been agreed that Elivia Homes will contribute [redacted] to fund habitat improvement projects, including hibernaculum creation and tree removal to open the meadow to more sunlight.

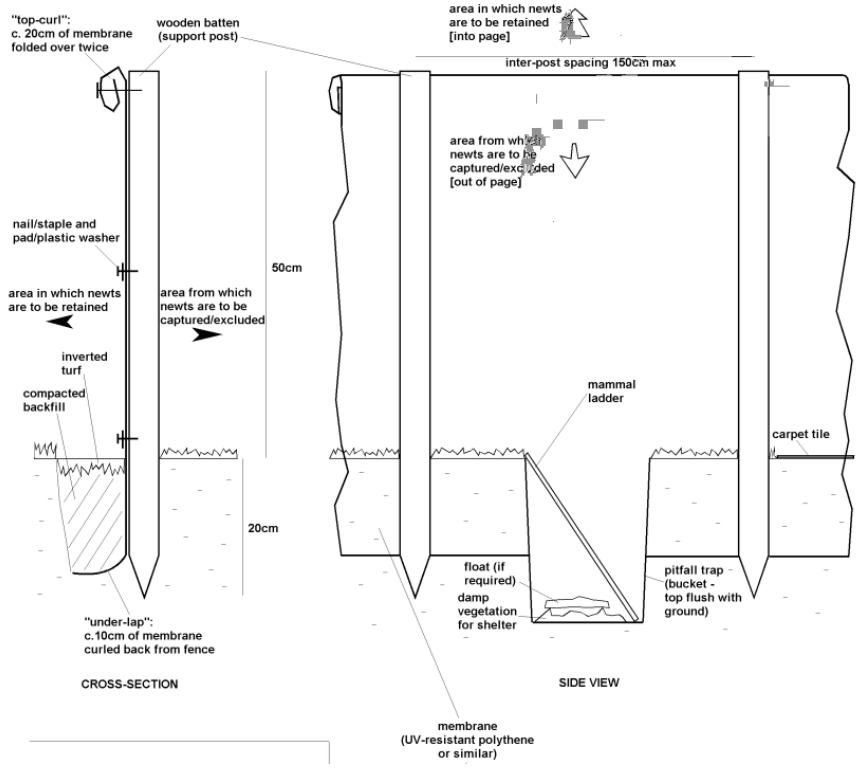
Horsham District Council, Parkside, Chart Way, Horsham, West Sussex RH12 1RL
Telephone: 01403 215100 (calls may be recorded) www.horsham.gov.uk Chief Executive: Jane Eaton

4.3.3 Capture and Exclusion

4.3.3.1 Capture and Translocation

Reptile relocation entails the capture of reptiles from the construction area (donor site) and release into the off-site receptor area. The relocation would be carried out in accordance with guidance published by the HGBI (1998). The methodology used for the capture of reptiles is the same as that used during survey. Artificial refugia made from materials such as roofing felt or corrugated metal allow reptiles to be detected and captured relatively easily. These artificial refugia warm up faster and retain heat for longer than the ground or surrounding vegetation and reptiles, being exothermic, will shelter under the refuges in order for their bodies to reach the temperature required for activity. The reptiles can then be captured by experienced field ecologists who regularly visit each refuge during suitable weather conditions. The construction area would be set up with reptile exclusion fencing where necessary (**Figs 20**) (anticipated to be required around parts of the site where it is feasible to install) to prevent the movement of reptiles from adjacent areas.

Figure 20. Reptile fence design and specification (as provided in English Nature, 2001).



In accordance with the HGBI guidelines (1998), artificial refugia should be distributed across the site at a minimum density of 100/ha, although given the population size of reptiles on site, a considerably higher density of refugia would be used in order to maximise the catching potential, particularly in areas where the density of reptiles recorded during the survey was found to be very high.

Captured Slow Worms would be transported to the receptor area in appropriate containers such as buckets.

4.3.3.2 Effort

The survey indicates that there is a **'low'** population of Slow Worm present on site. The HGBI (1998) guidelines recommend a minimum of 60 capture effort days are to be expended (**Table 2**), however given the low numbers identified (peak count of 2 adults) and the planned habitat manipulation that is to take place, 30 days trapping would be considered to be a more proportionate capture effort as recommended by The Ecology Co-op (2021) (however should capture rates be higher than anticipated, this may need to be extended).

Table 2. The minimum capture effort for Slow Worms based on HGBI (1998). The figures relevant to this scheme are emboldened and italicised.

Species	Population Size (adult density)	Refugia Density / ha	Minimum No of Trapping Days in Good Weather
Slow Worm	High (> 100 / ha)	100	All suitable days between March and September (min 90 suitable days)
	Medium (> 50 / ha)	100	All suitable days between march and September (min 70 suitable days)
	Low (< 50 / ha)	***50***	***60 Suitable days***

Reptile mats will be deployed at an increased density of >100 / ha and habitats will be sensitively manipulated prior to the installation of fencing. This will increase capture rate and encourage reptiles to naturally disperse into the retained habitats and help reduce the number of capture days required.

Despite a target of 30 trapping days, ***the relocation may only come to an end once 5 consecutive visits have been carried out in ideal weather conditions without identifying any reptile presence.*** This is based on survey guidance (Highways Agency, 2005), which suggests that a minimum of five visits are required to establish whether reptiles are present or likely to be absent from a site, during a standard survey. Therefore, if no reptiles are recorded after five visits (in optimal survey conditions), it can be concluded that reptiles are likely to be absent from the site (or the capture works complete).

4.3.3.3 Timing

All works which entail the capture of reptiles will take place between March and September under ideal weather conditions (between 10 and 18°C with intermittent sunshine and little or no wind and rain (Froglife, 1999)). This timing avoids the hibernation period when reptiles would be particularly vulnerable to disturbance. Reptiles will not be translocated after the end of September in order to allow them sufficient time to find suitable hibernation sites at the release area.

4.3.3.4 Habitat Manipulation

As described above, prior to the capture operation, the habitats on site will be manipulated in order to increase the capture rates. Typically, this would involve the strimming (to a height no lower than 15cm) of areas suitable habitat to reduce cover for reptiles and increase their reliance on artificial refugia for cover. It will also concentrate any remaining reptiles into parts of the site where the density of artificial refugia can be increased. Any habitat manipulation works will be carried out by a contractor under the supervision of a SQE to ensure works are carried out without harming individual reptiles.

4.3.3.5 Destructive Search

As per The Ecology Co-op (2021), *"an ecologist would still be present during the initial construction phases to undertake a 'watching brief' of all initial ground works"* with this constituting a destructive search. As a minimum, the destructive search would entail the sensitive removal of any remaining natural reptile refugia, such as brash piles, within areas of the site where particularly high densities of reptiles were captured. Dependent on the number of reptiles captured during the translocation exercise, the destructive search may need to be extended beyond the described targeted search of localised areas. In this instance, the destructive search would entail the sensitive stripping of vegetation from suitable reptile habitat on site using a toothed bucket.

Works will be supervised by a suitably qualified ecologist and should be undertaken during the active reptile period (April – September) when temperatures are above 12°C with sunshine. The supervising ecologist will capture any reptiles found and relocate them to the off-site reptile receptor (see **Section 4.3.2**). The cleared areas will then be regularly managed and maintained unsuitable for reptiles for the duration of the works. Please note, any suitable habitat within the root protection zone will not have the topsoil stripped and will only be maintained cut at ground level.

4.4 Great Crested Newts (GCN)

4.4.1 Precautionary Working Method Statement

While The Ecology Co-op (2021) previously ruled out the presence of GCN on site, the site has since been identified by NatureSpace (2022) as lying within a red impact risk zone for GCN and it was not possible to gain access to Pond 4 lying within 250m of the site. Given the presence of suitable habitat for GCN on site, it is therefore considered appropriate to implement the below described Precautionary Working Method Statement.

4.4.1.1 Toolbox Talk

An ecologist holding a GCN licence must brief all site operatives, providing a Toolbox Talk. This briefing must include details of the legal protection of GCN, all precautionary steps that must be taken during the proposed works, an annotated key detailing the appearance, characteristics and optimal habitat of GCN as well as what actions need to be taken if a GCN is found on site.

4.4.1.2 Sensitive Habitat Removal

Any scrub, trees or shrub requiring removal will be reduced in height gradually (50cm and then 10cm) under the direct supervision of an ecologist which will encourage any sheltering amphibians to move out of the area prior to removal of the scrub. An ecologist will undertake a fingertip search of the

remaining scrub stalks / vegetation bases prior to clearance to ground level. Where amphibians or reptiles are found, they will be moved to adjacent retained habitat.

Furthermore, any longer areas of grass must be strimmed / cut to a length of 6 inches followed by a fingertip search focusing on optimal GCN habitat such as tussocks. This must be carried out by a suitably qualified ecologist holding a Natural England survey licence.

Vegetation will be cleared in a directional approach (working towards retained boundary vegetation), encouraging any amphibians to move away from the area of impact towards suitable retained habitat.

4.4.1.3 Destructive Search

Following sensitive habitat removal, the remaining vegetation can be gradually removed (to a depth of 1 to 2 inches), by a digger with a toothed bucket, which will allow any amphibians on site to be removed if discovered. This work must be supervised by a suitably qualified ecologist searching each bucket of removed vegetation and must be undertaken during the GCN active period (between March and October depending on the weather).

NB. If any GCN are found during the works, all works must immediately stop and the project ecologist must be informed and Natural England or Nature Space contacted in order to obtain a European Protected Species development licence or get the site registered to the DLL scheme.

4.4.2 Enhancements

A single hibernaculum (**Fig 18**) will be created within the area of semi-natural habitat at the south of the site as indicated in the appended **Enhancement Plan**. This will provide suitable shelter for GCN while also offering potential basking opportunities for reptiles should they disperse into the site from surrounding habitats following construction.

4.5 Hazel Dormice

4.5.1 EPS Licence

The proposals involve the removal of approximately 0.158ha of scrub and 0.114ha of woodland (**Fig 21**). These works and any further works that impact upon the woodland, and scrub on site will need to take place under an EPSL obtained from Natural England and under the supervision of a Suitably Licensed Ecologist (SLE).

Figure 21. Approximate extent of suitable Dormouse habitat being lost as part of the proposed development (orange = scrub, blue = woodland).



4.5.2 Single Stage Clearance

Prior to clearance commencing, 10 Dormouse nest boxes will be installed throughout the retained woodland areas (away from where management works will take place) to increase the carrying capacity of the retained habitats for Dormice (locations indicated in appended **Enhancement Plan**). These will also act as receptors for any Dormice found during the sensitive clearance works and will be located within 50 m of all cleared vegetation by the licenced ecologist.

Within Natural England Dormouse Licence method statements, it is stipulated that up to 2500m^2 of habitat may be cleared in a single day and therefore it is considered that adopting a single stage active season approach would be the most appropriate clearance methodology. This would comprise the following (to be complete once an EPS has been granted by NE):

- Fingertip search of all vegetation to be cleared, by the licenced ecologist, immediately prior to clearance commencing (on the same day and every day clearance occurs).

- Prior to works commencing, the named ecologist or accredited agent will provide all site operatives with a toolbox talk to inform them of the potential presence of dormice, their legal status, means of identification, habitat requirements, the methodologies required to avoid impacts on the species and what they should do if a dormouse is found. A written record that this has been undertaken, signed by attendees, will be kept and made available to Natural England should it be required.

- Hand tools will be utilised to sensitively cut vegetation down to ground level in ***a single stage***. This will be undertaken in a directional fashion to passively encourage Dormice to move away from the works area towards retained, suitable hedgerow / treeline habitat. Where areas of scrub are being cut, this will be done directionally towards the retained habitats. All arisings will be chipped on site immediately.

- Cut material will be removed from the areas and chipped and removed from site or area of working operations.

- As stated above, 10 No. Dormouse nest boxes will be placed into the areas of retained woodland around the site to act as receptors in the event of any Dormice being found (locations indicated in the **Enhancement Plan** appended).

- Works will avoid the hibernation period (late November – March) and typically avoid the core breeding period (June – September). However, in this instance, September will be the most appropriate month in which to carry out works. Should any breeding nests be found, these will be retained in situ or moved to a place of safety (if the nests are in immediate danger).

- ***No more than 2500m^2 of habitat will be cleared in a single day.***

NB. The above stated methodology supersedes that detailed within the Ecological Impact Assessment (The Ecology Co-op, 2021) as it is based on the most up to date Natural England guidance.

4.5.3 Protecting Retained Features

Prior to construction works commencing, the retained woodland will be protected via the installation of heras fencing (or similarly robust construction fencing) covered with dust sheets and with regular information signage installed. Access will not be permitted behind this fencing by construction personnel. This will protect Dormouse habitat from direct damage/disturbance and dust.

4.5.4 Minimising Operational Impacts

As detailed within **Sections 4.1.4 and 4.1.5**, light spill onto the boundary woodland will be minimised with dark corridors provided. This will ensure the suitable Dormouse habitat on site will be protected from artificial light once the development is operational, thus preserving the integrity of these features for Dormice.

4.5.5 Compensation

The loss of a total of 0.272ha of Dormouse habitat on site will be compensated for through the creation of 0.218ha of native understorey around the boundaries of the site (**Fig 22**). Species to be planted in these areas include:

- Hazel (*Corylus avellana*)
- Hawthorn (*Crataegus monogyna*)
- Blackthorn (*Prunus spinosa*)
- Alder Buckthorn (*Frangula alnus*)
- Guelder Rose (*Viburnum opulus*)

- Wild Privet (*Ligustrum vulgare*), and climbers such as
- Dog Rose (*Rosa canina*) and Honeysuckle (*Lonicera periclymenum).*

Within the Ecological Impact Assessment, The Ecology Co-op (2021) was able to entirely compensate for the loss of Dormouse habitat on site. However, due to the recent development of young Willow scrub in the north of the site, there will now be a minor overall loss of Dormouse habitat (0.054ha). Nevertheless, it is considered that the native understorey planting being provided will offer new habitat of significantly higher quality for Hazel Dormice given that it comprises a mix of flower and berry producing species and will be managed to maintain a variety of ages and structures (Ecosupport Ltd., 2024).

Figure 22. Compensatory Dormouse habitat to be provided around the boundaries of the site (purple shading).



4.4.6 Protection of Hazel Dormouse Habitat

The enhanced / newly planted habitats will be protected via their inclusion within the sites POS and their inclusion as compensatory Dormouse habitat within the EPS (once granted).

4.6 Notable and Birds of Conservation Concern

4.6.1 Mitigation

In order to avoid disturbance of nesting birds or damage to their nests, any works impacting the vegetation and buildings on site will be undertaken outside of the bird nesting season (March – September). If this is not possible, the area of vegetation / building to be removed will be thoroughly checked by an ecologist immediately prior to demolition/clearance. If any active nests are found, they will be left undisturbed with a suitable buffer (ca. 5m) until nestlings have fledged.

4.6.2 Compensation

To compensate for the loss of scrub and woodland as a result of the development, native shrub planting will be created around the western, southern and eastern boundaries of the site to provide replacement nesting opportunities. These areas will be planted with native species including flowering and fruit-bearing specimens which will also provide foraging opportunities for birds as well as small mammals. Further detail as to the species that will be planted and the management within these areas can be found in the accompanying LEMP / BES (Ecosupport Ltd., 2024).

Additionally, 10 No. nest boxes will be erected within the retained trees across the site (**Fig 23**) (approximate locations indicated in the appended **Enhancement Plan**). These will include a mixture of Vivara Pro Barcelona nest boxes (4 No.) and Vivara Pro Seville nest boxes (6 No. – a mix of 28mm and 32mm entrance holes). The Barcelona caters to Wrens, Robins, Spotted Flycatchers, Pied and Grey Wagtails, Song Thrushes and Blackbirds. The Seville caters to Blue Tits, Tree Sparrows, House Sparrows, Great Tits, Crested Tits, Nuthatches, Coal Tits and Pied Flycatchers.

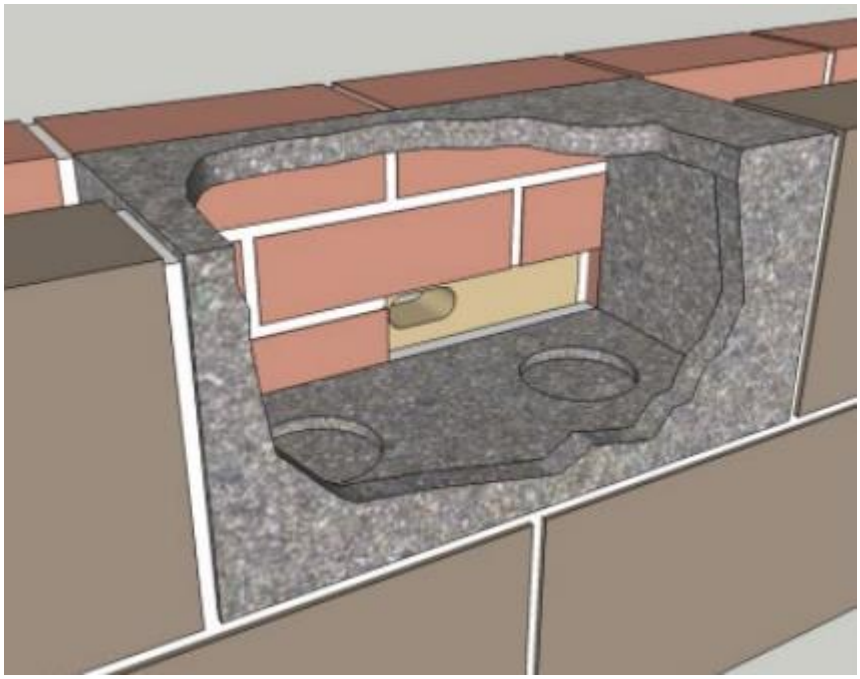
Figure 23. Vivara Pro Seville 32mm bird box (left) and Vivara Pro Barcelona bird box (right) (NHBS, 2024).



4.6.3 Enhancements

As a further enhancement, Swift bricks will be incorporated into the new dwellings in a 1:1 ratio to the number of dwellings (74 No. in total) (approximate locations indicated in the appended **Enhancement Plan**). The 'CJ Wildlife Swift maxi nesting box' (**Fig 24**) with entrance via a CJ Wildlife 'Cambridge Swift full-face brick' (The Cambridge System is a concept comprising an entrance piece and a nest box embedded in the cavity and inner leaf. It is particularly suited to gable ends at roof-space level). If this model is not suitable for the building specifications, an alternative swift box with internal floor space exceeding 400cm squared must be used.

Figure 24. A schematic of how the Cambridge full face Swift brick leads into a cavity created by the prior installation of the Swift maxi nesting box.



4.7 Hedgehogs

[redacted]

4.7.2 Compensation

Habitat of value to sheltering and foraging hedgehogs is being lost as part of the development, namely scrub and ruderal / ephemeral vegetation. To compensate for this, native shrub planting will be provided along the western, southern and eastern boundaries of the site with this offering replacement opportunities for sheltering and foraging hedgehogs. Furthermore, the gardens and grassland areas being created on site can still offer some sub-optimal foraging habitat for Hedgehogs using the site.

4.8.3 Enhancements

To ensure permeability for small mammals across the site, the garden fences of the properties will ensure at least 2 gaps are present within the gravel boards / bases of each fence line to allow for movement of Hedgehogs between gardens and into the wider area. The gaps should be at least 15 cm high by 15 cm wide with permeability for small mammals.

Small signage could be installed at these points to ensure they remain open upon completion of the development. The People's Trust for Endangered Species provide such signage, the purchase of which also supports conservation efforts (**Fig 25**).

Figure 25. Example of Hedgehog Highway signage to be placed above fence gaps provided to allow movements between gardens.



4.8 Protection of Woodland, Hedgerows and Trees

The retained woodland around the boundaries of the site and the retained Leylandii hedgerows will be protected from damage during the works. They will be fenced using Heras fencing or similar to prevent access by machinery. Where large mature trees are present, they will be protected using standard arboricultural tree protection measures which include protection of the canopy and prevention of root compaction.

5.0 BIODIVERSITY PROTECTION ZONES

5.1 Fencing and Signage

Biodiversity protection zones will be put in place to protect retained habitats of value to protected species that may be using the site during the construction period. As part of the reptile mitigation strategy outlined in **Section 4.3** above, the construction area would be set up with reptile exclusion fencing where necessary (anticipated to be required around parts of the site where it is feasible to install) to prevent the movement of reptiles from adjacent areas. As described in **Section 4.9** above, a line of Heras fencing will also be erected around the boundaries of the site (inside the reptile fencing) to protect the retained woodland, hedgerows and trees.

Signage will be added to the Heras fencing stating things such as:

Biodiversity Protection Zone

It is an Offence to Damage / Disturb this habitat

No vehicles will enter the protected area and no materials will be stored within their circumference. All fencing must be in place before any works on site get underway and will remain in place until all work is completed. This will minimise the level of disturbance to the buffer area and ensure the habitat and any wildlife species that are using them are protected.

Fig 26 below illustrates the Biodiversity Protection Zones.

Please note that this plan does not include the tree root protection zones – this will be provided separately by the arboricultural consultant appointed for the site.

Figure 26. Biodiversity protection zones on site (blue shading) with boundaries to be demarcated by Heras fencing.



5.2 Lighting

Given the presence of nocturnal wildlife utilising the boundaries of the site, construction works should be limited to daylight hours and should not be undertaken 30 minutes prior to dusk through to dawn. If any lighting needs to be installed on site, this must be sensitive to wildlife and comply with the guidelines described in **Section 4.1.5.2.** In particular, light spill onto the biodiversity protection zones must be kept to a minimum by directing lighting away from these areas or through use of shields.

6.0 RESPONSIBILITIES

6.1 Key Roles

The CEMP (Biodiversity) will be distributed to the project team, including sub-contractors, to ensure that the ecological requirements are communicated effectively. **Table 3** below describes the key roles and associated responsibilities throughout the construction period.

Table 3. Key roles and responsibility.

Role	Appointment by (Name inserted as appropriate)	Responsibilities
Developer	Elivia Homes	• Responsible for implementing the measures within this CEMP (Biodiversity). • Responsible for commissioning an Ecological Clerk of Works (ECoW) to undertake the necessary supervision works detailed in this CEMP (Biodiversity).
Site Manager	*To be confirmed*	Routine compliance with the CEMP (Biodiversity), particularly with concern to activities on site, shall be the responsibility of the site manager primarily. In addition to the above, the site manager will be responsible for: • Implementation and monitoring of this CEMP (Biodiversity) and the guidance therein. • Ensuring subcontractors are aware of the requirements of this CEMP (Biodiversity). • Ensuring subcontractors comply with the CEMP (Biodiversity). • Ensuring site-specific training for staff and operatives on the ecological constraints detailed within this CEMP (Biodiversity). • Ensuring applicable toolbox talks are provided. • Taking immediate remedial action if there are any breaches of the CEMP (Biodiversity).
Ecological Clerk of Works	Ecosupport Ltd 01329 832 841	• Responsible for providing ECoW as needed, EPS works, protected species mitigation and adherence to CEMP (Biodiversity) & BES / LEMP recommendations. • Responsible for conducting monthly compliance checks to ensure

		protective fencing remains intact and all measures within the CEMP (Biodiversity) are being adhered to. ● Responsible for reporting any concerns or breaches of the CEMP (Biodiversity) to the Site Manager (or ecological body e.g. Natural England) as appropriate.

6.2 Training Awareness and Competence

Site staff shall be competent to perform tasks that have the potential to cause a significant ecological impact. Competence is defined in terms of appropriate education, training and experience. Ecological awareness and training shall be achieved by:

- Site induction, including a talk given by an Ecologist, during which information on all protected areas will be given and the sensitivity of the site for a range of protected species. The importance of leaving areas outside of the construction zone undisturbed once the protective fencing is installed will be emphasised.
- Information on protected species will be given including field signs to look out for during construction work.
- Environmental posters and site notices will be erected around the site.

Training will be recorded in the Project records by each Developer.

6.3 Line of Communication Regarding Ecological Issues

Prior to work getting underway, all staff will be aware of the ecological features and associated issues on site. They will be conscious of the impacts of their actions not only on the retained areas/Biodiversity Protection Zones on site but also the areas adjacent to the site. They will also be mindful during works of field signs of protected species and finally of the steps to take in the eventuality that an ecological situation arises. Therefore, as soon as an issue is uncovered/advice is needed, the Project Manager will be consulted. They will then contact the ECoW who will visit the site and advise accordingly.

7.0 REFERENCES

ARG (2010) *Amphibian & Reptile Groups of the UK, ARG Advice Note 5, Great Crested Newt Habitat Suitability Index*, May 2010

Institute of Lighting Professionals / Bat Conservation Trust (2023) *Guidance Note 08/23 Bats and Artificial Lighting at Night.*

Batscan Ltd. (2020) *Bat Survey Report – Land & Outbuildings, Chanctonbury Nursery, Rectory Lane, Ashington, West Sussex, RH20 3AS*

Bright, P, Morris, P and Mitchell-Jones, T., (2006) *The Dormouse conservation handbook, 2nd edition, English Nature*.

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

HART (2009) Herefordshire Amphibian & Reptile Team. *Reptile Habitat Management: Guidelines for Landowners*

[redacted]

NatureSpace Partnership (2022) Horsham District Council – Impact Risk Zones. Available at: https://naturespaceuk.com/district-licensing/impact-map/

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.

The Ecology Co-op (2021) *Ecological Impact Assessment – Land at Chanctonbury Nursery, Rectory Lane, Ashington, RH20 3AS.*

UKHab Ltd. (2023). UK Habitat Classification – Habitat Definitions Version 2.0 (July 2023)



Legend

- 37 No. Integrated Bat Bricks
- 15 No. Tree Mounted Bat Boxes
- 74 No. Integrated Swift Bricks
- 10 No. Tree Mounted Bird Boxes
- 10 No. Dormouse Boxes
- 1 No. Reptile / Amphibian Hibernaculum
- Enhanced Native Hedgerow
- Created Pond Edge Grassland
- Native Understorey
- Wildflower Grassland

ecosupport
K4 Keppel, Daedalus Park
Daedalus Drive
Lee on the Solent, PO13 9FX
E: info@ecosupport.co.uk
T: 01329 832 841

Map	Enhancement Plan
Site	Land at Chanctonbury Nursery, Ashington
Client	Elivia Homes
Date	03/05/2024

© This map is the copyright of Ecosupport Ltd.
Any unauthorised reproduction or usage by any person is prohibited.