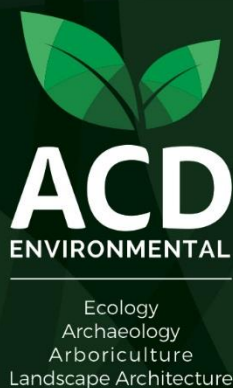


# SITE ADJACENT TO QUEEN VICTORIA HOSPITAL EAST GRINSTEAD

## CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN: BIODIVERSITY



MACAR  
PARTNERSHIPS  
(QVH) LIMITED

|                               |             |
|-------------------------------|-------------|
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| <b>Revised by:</b>            | J. Cranston |

## **QUALITY ASSURANCE**

This report has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Report Writing (2nd Edition, December 2017).

The facts stated in this report are true to the best of our knowledge and belief, and any opinions expressed are held genuinely and in accordance with the accepted standards of the profession. ACD Environmental Ltd is a CIEEM Registered Practice.

|                   |                                                           |
|-------------------|-----------------------------------------------------------|
| Client:           | Macar Partnerships (QVH) Limited                          |
| Site/job:         | Site Adjacent to Queen Victoria Hospital, East Grinstead. |
| Author:           | L. Aparo                                                  |
| Technical review: | D. Lambert                                                |



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# 1 INTRODUCTION

- 1.1. ACD Environmental Ltd was instructed to produce a Construction Environmental Management Plan (CEMP): Biodiversity for the Land adjacent to Queen Victoria Hospital, East Grinstead, RH19 3DZ (OS Grid Reference: TQ 39793 39402). This land is hereafter referred to as the 'Approved Development Site'.
- 1.2. Mid Sussex District Council previously granted full planning permission, subjects to conditions for: *"Erection of 30 dwellings along with access from Oakfield Way along with parking and landscaping."*. Relating to planning **DM/21/1842**, granted on 15<sup>th</sup> February 2023.
- 1.3. A revision to the layout was approved on the 18th of November 2025 Mid Sussex District Council granted permission for *"Erection of 36 dwellings along with access from Oakfield Way along with parking and landscaping"* as part of newly proposed application **DM/24/27/04**.
- 1.4. This report has been produced to address **Condition 8** of the planning consent. **Condition 8** states:

*"No development shall take place unless and until a construction environmental management plan (CEMP: Biodiversity) shall be 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.*
- i) Containment, control and removal of any Invasive non-native species present on site*
- j) Containment, control and removal of any Invasive non-native species present on site*

*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) and to accord with Policy DP38 of the District Plan".*

- 1.5. This report should be read in conjunction with the Ecological Survey Report dated January 2021<sup>1</sup> and the Preliminary Ecological Appraisal Update dated December 2022<sup>2</sup> both produced by PJC Consultancy. The UK Habs and BNG Assessment<sup>3</sup>, the Landscape and Ecological Management Plan<sup>4</sup> and the Soft Landscape Plan all produced by ACD Environmental<sup>5</sup>. As well as the Tree Climbing Inspection Report produced by Arb Tech<sup>6</sup>

### **Competence**

- 1.6. This report has been written by Louise Aparo, Ecologist at ACD Environmental. Louise Aparo has experience carrying out a variety of surveys including but not limited to Extended Phase 1 Habitat Surveys and more recently UK Hab Survey, Preliminary Roost Assessments (PRAs) with experience in Biodiversity Metrics. Louise is working towards Natural England Class Licences for bats and great crested newt *Triturus cristatus*.
- 1.7. A Technical Review of this report has been undertaken in line with ACD Environmental Ltd's Quality Assurance procedures. The Technical Review was undertaken by Dominic Lambert of ACD Environmental Ltd. Dominic is an Ecologist and has been involved in a wide range of surveys including Extended Phase 1 Habitat Surveys for protected species and UK Hab Surveys; and has been involved in a number of Biodiversity Metrics. Dominic is a qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

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<sup>1</sup> PJC Consultancy (29<sup>th</sup> November 2019). *Ecological Survey Report: Woodland parcel at Queen Victoria Hospital, Holtye Road, East Grinstead, RH19 3DZ*. PDF. Kent.

<sup>2</sup> PJC Consultancy (20<sup>th</sup> January 2021). *'Preliminary Ecological Appraisal.'* PDF. Kent

<sup>3</sup> PJC Consultancy (13<sup>th</sup> December 2022). *'Preliminary Ecological Appraisal Update – Land at Queen Victoria Hospital, Holtye Road, East Grinstead, West Sussex'* Kent. PDF.

<sup>4</sup> ACD Environmental (15<sup>th</sup> September 2023) *'UK Habs and BNG Assessment'*. Malmesbury. PDF.

<sup>5</sup> ACD Environmental (June 2024). *'Soft Landscape Proposal.'* Malmesbury. PDF.

<sup>6</sup> Arbtech (1<sup>st</sup> August 2024) *'File note – Tree climbing inspection for bats at Land at Queen Victoria Hospital RH19 3DZ'* PDF. Chester.

## 2 AIMS AND OBJECTIVES

### Aims

2.1. The aims of this CEMP: Biodiversity and how this relates to specific sections of this report are as follows:

- Provide a summary of the previous ecology surveys and results in order to provide the context to subsequent recommendations (**Section 3.0**).
- Provide details of the roles and responsibilities for future actions (**Section 4.0**).
- Identification of “biodiversity protection zones” in respect of protected and notable species and habitats (**Section 5.0**).
- Risk assessment of potentially damaging construction activities (**Section 5.0 and 6.0**).
- Provide details on protection measures and protocols to be implemented during the construction phase (**Section 5.0**).
- Provide details on monitoring and review (**Section 7.0**).
- Provide details of a schedule of works for timing of sensitive works to avoid harm to biodiversity features (**Section 7.0**).
- Provide conclusions to the points raised (**Section 8.0**).

### Objectives

2.2. This report aims to achieve the following objectives throughout the construction phase of the project:

- To implement measures and methodologies to protect “biodiversity protection zones” and the species/habitats within these from unnecessary damage and disturbance.
- To deliver construction phase maintenance measures.
- To deliver construction phase monitoring and review measures.

### 3 BASELINE ECOLOGICAL CONDITIONS

- 3.1. The Approved Development Site consists of c. 2.0 hectares of mixed broadleaved woodland, classified as priority deciduous woodland within the Priority Habitat Inventory<sup>10</sup>, with a non-priority pond adjacent to the southern boundary.
- 3.2. The Approved Development Site borders north-east of East Grinstead town centre and south of the Surrey border. The wider landscape predominantly consists of residential development from southeast to southwest with the Queen Victoria Hospital neighbouring the eastern boundary. The northeastern boundary of the Approved Development Site connects to ancient woodland, designated as Ancient- Semi Natural woodland<sup>4</sup>. **Figure 1** below indicates an approximate boundary of the Approved Development Site.



**Figure 1:** Approximate boundary of the Approved Development Site (red). The blue boundary indicates off-site ancient woodland habitat. Map data (2025): Google. Google maps.

- 3.3. The Approved Development Site has been subject to a range of ecological surveys, which were undertaken between 2019 - 2024 by PJC Consultancy and ACD Environmental. The surveys carried out at the Approved Development Site are summarised within **Table 1** below.

**Table 1:** Details of field surveys.

| Survey                                                                            | Survey date                                                                                | Survey area                                                                             | Survey summary results                                                                                                                                                                                                                                            | Consultancy       |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Breeding bird survey                                                              | 6 <sup>th</sup> April -23 <sup>rd</sup> July 2019.<br>A total of five survey visits.       | Approved Development Site and immediate surroundings.                                   | Total 19 species recorded.<br>Four species listed under Section 41<br>Species of principal importance;<br>house sparrow <i>Passer domesticus</i><br>Starling <i>Sturnus vulgaris</i><br>Song thrush <i>Turdus philomelos</i><br>Dunnock <i>Prunella modularis</i> | PJC Consultancy   |
| Static bat detector survey                                                        | 11 <sup>th</sup> April – 16 <sup>th</sup> October 2019.<br><br>Total of 15 survey visits.  | Approved Development Site                                                               | Six species recorded. 88% of recording were common pipistrelle <i>Pipistrellus pipistrellus</i> and 9% by soprano pipistrelle <i>Pipistrellus pygmaus</i>                                                                                                         |                   |
| Dormouse presence/absence survey                                                  | 13 <sup>th</sup> May – 16 <sup>th</sup> October 2019.<br><br>A total of six survey visits. | Approved Development Site and adjoining ancient woodland connecting to eastern boundary | No dormice recorded                                                                                                                                                                                                                                               |                   |
| Reptile presence/absence survey                                                   | 25 <sup>th</sup> April – 1 <sup>st</sup> August 2019.<br><br>A total of seven surveys.     | Approved Development Site.                                                              | One adult slow worm <i>Anguis fragilis</i><br><br>one subadult grass snake <i>Natrix natrix</i>                                                                                                                                                                   |                   |
| Great crested newt <i>Triturus cristatus</i> habitat suitability index assessment | 11 <sup>th</sup> April 2019                                                                | Pond onsite, and two ponds within 250m of Approved Development Site                     | Pond onsite – ‘Poor suitability’ to support great crested newts.<br><br>Of the two offsite ponds, one was completely dry at the time of survey, the other pond scored ‘average’.                                                                                  |                   |
| Great crested newt eDNA survey                                                    | 25 <sup>th</sup> April 2019                                                                | Pond onsite only.                                                                       | Negative                                                                                                                                                                                                                                                          |                   |
| Extended Phase 1 Habitat Survey                                                   | 7 <sup>th</sup> January 2021                                                               | Approved Development Site                                                               | Deciduous woodland with dirt access intercepts the centre of the Site. Body of water within southern section of site.                                                                                                                                             |                   |
| Preliminary Roost Assessment - Structures                                         | 7 <sup>th</sup> January 2021                                                               |                                                                                         | 10 mature trees on site categorised as moderate-high suitability to support roosting bats.                                                                                                                                                                        |                   |
| Great crested newt Habitat Suitability Index assessment                           | 7 <sup>th</sup> January 2021                                                               | Pond onsite only                                                                        | Poor suitability to support great crested newts.                                                                                                                                                                                                                  |                   |
| Walkover update                                                                   | 13 <sup>th</sup> December 2022                                                             | Approved Development Site                                                               | Habitat remains unchanged.                                                                                                                                                                                                                                        |                   |
| UK Habitat and Classification (UK Hab) Survey and BNG Assessment                  | 16 <sup>th</sup> August 2023                                                               | Approved Development site and eastern woodland area.                                    | W1h5- other woodland; mixed.<br><br>Nonpriority pond.                                                                                                                                                                                                             | ACD Environmental |
| UK Hab Survey update                                                              | 1 <sup>st</sup> July 2024                                                                  | Approved Development Site                                                               | W1h5 Other woodland mixed – mainly broadleaved.<br>Non-priority pond.                                                                                                                                                                                             |                   |

|                                         |                |                                                                              |                                                                                                                      |          |
|-----------------------------------------|----------------|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------|
| Tree Climbing Inspection with Endoscope | 26th July 2024 | Three high potential trees within northern area of Approved Development Site | The three trees surveyed concluded all features present on the trees were shallow and did not support roosting bats. | Arb Tech |
|-----------------------------------------|----------------|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------|

- 3.4. For a more detailed summary of survey results and methodologies within the Approved Development Site, please refer Ecological Survey Report<sup>7</sup>, Preliminary Ecological Appraisal<sup>8</sup>, the UK Hab and BNG Assessment<sup>9</sup> and the Tree Climbing Report<sup>6</sup>

### Designated Sites

- 3.5. The Approved Development Site is located within the 'zone of influence' (ZOI) of Ashdown Forest Special Area of Conservation (SAC) and Special Protection Area (SPA)<sup>10</sup>. The ZOI is 7km from the boundary of Ashdown Forest, the Approved Development Site is approximately 5.7km away. The planning consultant report, produced by Natural England states that the development of the Approved Development Site is likely to have significant effect on Ashdown Forest due to increased recreational pressure<sup>11</sup>. The council authority has local measures in place to manage potential recreational impacts; these mitigation measures take the form of contributions to Suitable Alternative Natural Greenspaces (SANG) provisions and financial payment to Strategic Access Management and Monitoring (SAMM)<sup>12</sup>.
- 3.6. The Approved Development Site is within the Zone of Influence (ZOI) for two non-statutory sites; Worth Way and Ashplatts, both Local Wildlife Sites. Under the Mid-Sussex District 2014-2031 Plan<sup>13</sup>, Policy DP22 Rights of Way and other Recreational Routes, Worth Way constitutes as a Recreational Route and is protected to ensure development does not result in the loss or adversely effect the recreational route. Mitigation for Worth Way includes ensuring development provides convenient, safe links to other recreational routes, and/or supporting additional routes between settlements<sup>13</sup>.

<sup>7</sup> PJC Consultancy (29<sup>th</sup> November 2019). *Ecological Survey Report: Woodland parcel at Queen Victoria Hospital, Holtye Road, East Grinstead, RH19 3DZ*. PDF. Kent.

<sup>8</sup> PJC Consultancy (20<sup>th</sup> January 2021). *'Preliminary Ecological Appraisal.'* PDF. Kent

<sup>9</sup> PJC Consultancy (13<sup>th</sup> December 2022). *'Preliminary Ecological Appraisal Update – Land at Queen Victoria Hospital, Holtye Road, East Grinstead, West Sussex'* Kent. PDF.

<sup>10</sup> Multi-Agency Geographical Information for the Countryside (2024). *MAGIC*. [Online]. Available from: <https://magic.defra.gov.uk/magicmap.aspx>

<sup>11</sup> Natural England (4<sup>th</sup> December 2023) *'Planning Consultation Ref; DM.21.1842'*. PDF. Cheshire.

<sup>12</sup> Mid-Sussex District Council (21<sup>st</sup> August 2023) *'Protecting Ashdown Forest'*. [Online]. Available from: <https://www.midsussex.gov.uk/planning-building/protecting-ashdown-forest/>

<sup>13</sup> Mid-Sussex District Council (March 2018) *'Mid Sussex District Plan 2014-2031'*. [Online]. Available from: <https://www.midsussex.gov.uk/media/2367/district-plan-adoption-version.pdf>

- 3.7. Ashplatts is a SANG created to alleviate recreational pressure for Ashdown Forest SPA and SAC. The Approved Development falls within the 7km radius of Ashdown Forest and is c. 560m southeast of Ashplatts. Mitigation for Ashplatts will be included under the mitigation for Ashdown Forest, discussed above in paragraph 3.4.

### Habitats

*W1h5 Other woodland mixed – mainly broadleaved.*

- 3.8. The mixed woodland comprises of European Ash *Fraxinus excelsior*, blackthorn *Prunus spinosa*, common holly *Ilex aquifolium*, dog rose *Rosa canina*, English oak *Quercus robur*, hawthorn *Crataegus monogyna*, field maple *Acer campestre*, sycamore *Acer pseudoplatanus*, hazel *Corylus avellana*, two Lawson cypress's *Chamaecyparis lawsoniana*, goat willow *Salix caprea*, one western red cedar *Thuja plicata* and yew *Taxus baccata*. The BNG assessment survey<sup>4</sup> references a further two species: bamboo *Poaceae sp.*, and bird cherry *Prunus padus*.
- 3.9. In addition, Cherry laurel *Prunus laurocerasus* was established within glades of the woodland and appears to be spreading.
- 3.10. Ground flora present within the woodland consist of bramble *Rubus fruitcosus*, herb Roberts *Geranium robertianum*, creeping buttercup *Ranunculus repens*, false oat grass *Arrhenatherum elatium*, hedge bindweed *Calystegia sepium*, false brome *Brachypodium sylvaticum*, common ivy *Hedera helix*, wood melic *Melica uniflora*, pendulous sedge *Carex pendula*, common nettle *Urtica dioica*, cocksfoot *Dactylis glomerata*, tufted hair grass *Deschampsia cespitosa*, Yorkshire fog *Holcus lanatus*, male fern *Dryopteris filix-mas*, willow herb *Epilobium sp* and creeping jenny *Lysimachia nummularia*.

Desire lines were present within in the woodland, which were found to be well used, with areas of trampling and bare ground footpaths, in addition to dirt tracks for transport to the hospital.

#### *41 Pond (non-priority).*

3.11. An attempt was made to survey the non-priority pond, however there was difficulty in visibility due to dense growth of vegetation. According to the UK Hab and BNG Assessment Survey, the pond is described as; “...surrounded by w1h5 woodland and so is shaded by native trees along the banks. The water is clear with low turbidity and <10% duckweed or filamentous algae on the pond surface. It does not appear fish are present in large densities, coots were seen during the time of the survey. The banks surrounding the pond were gently sloping and boggy with low vegetation. No aquaflore was present in the pond or along the banks. No artificial dams, pumps, connections to other water bodies or pipework were preset and no non-native plant or animal species were identified”. As the UK Hab assessment took place a year ago, it is considered the habitat remains the same, as described.

#### **Fauna**

3.12. For ease of reference, descriptions of relevant fauna have been provided alphabetically, below.

3.13. Other species have been ruled out due to lack of suitable habitat or lack of local records.

#### *Amphibians*

3.14. A non-priority pond is present within the south of the Approved Development Site.

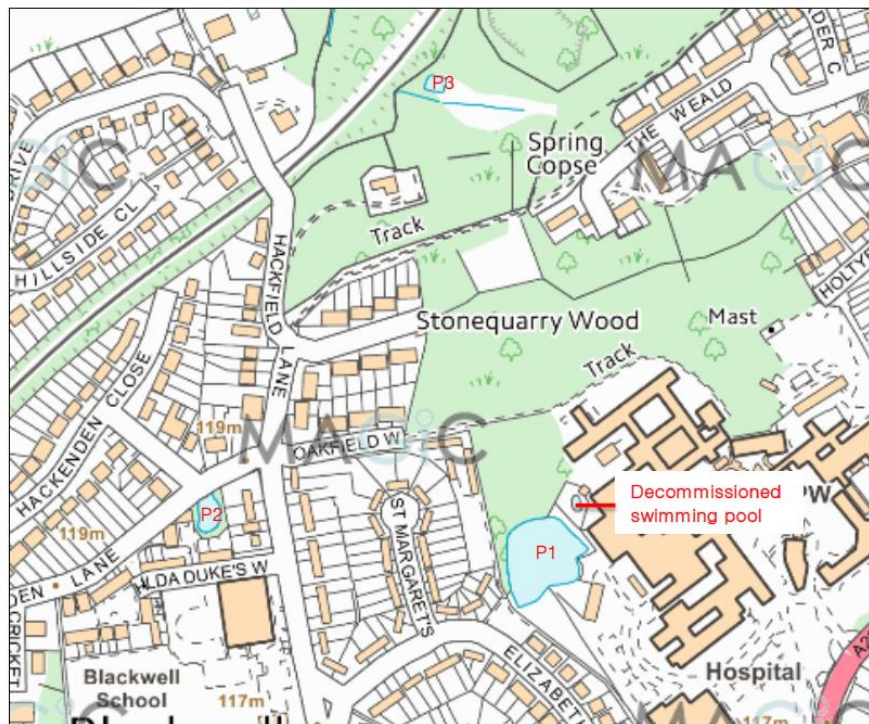
3.15. According to the Nature Space Impact Risk Zones for great crested newts<sup>14</sup>, the Approved Development Site appears to be located in an orange impact zone, neighbouring red impact zones, as seen in **Appendix 1**. The colour coded zones represent likely presence of great crested newts, amber indicates suitable habitat, with great crested newts likely to be present and red impacts highly suitable habitat, important areas for great crested newts.

3.16. The on-site pond has scored negative for eDNA tested on 25<sup>th</sup> April 2019 and has scored ‘poor suitability’ for two Habitat Suitability Index (HSI) assessments, the most recent assessment on 7<sup>th</sup> January 2021. The score was primarily due to poor water quality, as well as lack of suitable aquatic vegetation and waterfowl present.

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<sup>14</sup> Nature Space Partnership (2024) *Impact Risk Zones*. [Online]. Available from: <https://naturespaceuk.com/district-licensing/impact-map/>

3.17. There are two ponds within a 250m radius of the pond onsite, as seen in **Figure 2**, provided by the Ecological Survey Report. As labelled in **Figure 2**, pond 1 refers to onsite non-priority pond, scoring poor suitability, pond 2 scores 'average suitability' and pond 3, was not available to HSI asses due to being dry at the time of survey and showing signs that the pond has remained dry for a significant period of time. Onsite pond 1 and pond 2 are separated by residential dwellings.



**Figure 2:** Location of ponds within 250m radius of on-site pond. Map provided by PJC Consultancy<sup>1</sup>

3.18. According to results from previous HSI indicating the onsite pond has poor suitability, and a residential development situated between pond 2 which scored average, the Approved Development Site appears to have **low suitability to support great crested newts**. However, as the site falls within an amber zone, neighboured by red zones, precautionary measures for the species will be discussed in Section 6.

3.19. The Approved Development Site does support other amphibians, such as the common frog *Rana temporaria* and smooth newt *Lissotriton vulgaris*; four juvenile common frogs and a single juvenile smooth newt were recorded during the reptile surveys between April – August 2019.

3.20. The pond and its immediate surrounding habitat are to remain and be protected during construction. As the surrounding habitat remains largely unchanged, and with visible limitations to the pond during the Updated Walkover on July 1<sup>st</sup>, it is believed the Approved Development remains similar in ability to support amphibians. The Approved Development site is considered to have **moderate suitability** for commuting amphibians.

## *Bats*

- 3.21. A bat activity survey conducted between April to October 2019, using static detectors and transect activity surveys recorded six species within the Approved Development Site; common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaus*, nathusius pipistrelle *Pipistrellus nathusii*, *Plecotus sp* such as brown-long eared *Plecotus auritus*, noctule *Nyctalus noctula* and *Myotis sp*.
- 3.22. Of the 6 species recoded the most frequent was common pipistrelle, followed by soprano pipistrelle as stated in Table 1, with the most activity levels recorded in May, July and September 2019.
- 3.23. The Approved Development Site was subjected to a Preliminary Roost Assessment (PRA) on 7<sup>th</sup> January 2021, conducted by PJC Consultancy. The results of the PRA assessed 10 trees as having moderate to high potential to support roosting bats, these include 10 signal mature oak trees and one ash tree, **Appendix 2** provides a map of the mature trees with potential features.
- 3.24. During the Updated Walkover Survey, a PRA was conducted at the same time, similar to the previous PRA on 7<sup>th</sup> January 2021, eight mature oaks, one mature ash and one red cedar had potential bat roosting features such as wounds, lifted bark, butt rot and knotholes, a map of approximate locations of mature trees can be seen in **Appendix 3**.
- 3.25. The red cedar was checked as this was a low butt rot feature and was found to be shallow with no access into the tree. However, we were unable to survey all trees present within the woodland due to timing limitation, as well as visible limitations; majority of mature trees have thick ivy present, making it difficult to fully view the body of the tree, as well as the dense nettle ground flora.
- 3.26. Following these surveys, Arbtech conducted a Ground level tree assessment on 15<sup>th</sup> July, followed by a Tree Climbing Roosting Features inspection on 26<sup>th</sup> July 2024<sup>6</sup> <sup>above6</sup> at the Approved Development Site. The Tree Climbing Assessment consists of using an endoscope to survey potential bat features on trees and identify if these features can support roosting bats or evidence of bats. The survey inspected three trees in total with an endoscope, **Appendix 4** indicates the location of the trees. The results of this survey indicated; all three trees did not have suitable features due to too shallow.
- 3.27. Although the recent endoscope survey on 26<sup>th</sup> July indicate no suitable roosting features for bats, a further seven trees, as assessed during the PRA on 7<sup>th</sup> January 2021 and 1<sup>st</sup> July 2024, to have roosting features for bats.

- 3.28. Due to the transitional nature of woodlands, such as the forming of woodpecker holes and lifted bark, the Approved Development Site is considered as **high suitability** for roosting, commuting and foraging bats.



**Photograph 1** (left): Oak with wood-pecker cavities.

**Photograph 2** (right): Oak with dense ivy cover.

### *Badgers*

- 3.29. No field signs of European badger *Meles meles* was observed during the Updated UK Habs walkover in July 2024. Field signs include latrine lines, dens, dung pits, snuffle holes and hairs. Although there were numerous mammal paths within the woodland, no other signs accompanied with the mammal paths to indicate badgers.
- 3.30. Although no badger setts were identified on site, given the woodland provides suitable foraging and commuting habitat, the Approved Development Site has **high suitability** to support commuting badgers.

### *Birds*

- 3.31. The woodland provides suitable habitat for nesting birds, with many suitable opportunities within the dense canopy. During the Updated Walkover Survey there was presence of nesting birds, as fledglings could be heard, and a nesting black bird was recorded within a forked hazel tree.

### *Hedgehog*

- 3.32. The Updated UK Hab survey revealed mammal paths throughout the Approved Development Site. The woodland habitat provides many nesting opportunities in the form of log piles and leaf litter<sup>15</sup>, as well as foraging and commuting opportunities. The Approved Development site has **high suitability** to support European hedgehog *Erinaceus europaeus*.

### *Invertebrates*

- 3.33. Deadwood was present within the Approved Development Site due to fallen trees within the woodland habitat. This provides suitable habitat to support stag beetle and other notable invertebrate species. The Approved Development site has **high suitability** for notable invertebrate species.

### *Reptiles*

- 3.34. A reptile survey was undertaken by PJC Consultancy between 29th April to 1st August 2019, with a peak count of one adult slow worm *Anguis fragilis* and one sub-adult grass snake *Natrix natrix*. Woodland composition and habitat has not altered since the 2019 survey, as described in the preliminary ecological appraisal<sup>2</sup> as “...comprises predominantly semi-natural deciduous woodland which for the majority is considered to be less than 50 years old. This determination was estimated using historical satellite imagery A large duck pond (P1) is present within the southern portion of the Site and a dirt access track intercepts the centre of the Site...”.
- 3.35. Hibernacula are present within the woodland due areas of dead wood log piles. However, the woodland is heavily shaded, with footpaths in frequent use by dogwalkers, pedestrians and vehicles to Queen Victoria Hospital, therefore most likely used for commuting and foraging purposes only.
- 3.36. Due the unstable features of the woodland, i.e. heavy shading and frequent pedestrian use and the results of the April 2019 reptile survey, the Approved Development Site is considered to have **low suitability** to support commuting reptiles .

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<sup>15</sup> Mammal Society (2024). ‘European hedgehog *Erinaceus europaeus*’. [Online]. Available from: <https://mammal.org.uk/british-mammals/european-hedgehog>

## **4 ROLES AND RESPONSIBILITIES**

- 4.1. This report should be read in conjunction with other environmental reports for the Site adjacent to Queen Victoria Hospital, East Grinstead.
- 4.2. The overall responsibility for the design of the scheme under The Construction (Design and Management) Regulations 2015 is with the Principal Designer.
- 4.3. The implementation of this CEMP: Biodiversity is the responsibility of the Project Manager and/or Contractor on behalf of the Developer, who will collectively be responsible for ensuring that the appointed sub-contractors and all site staff are aware of the ecological constraints and the distribution of the CEMP: Biodiversity document accordingly.
- 4.4. An appropriately qualified Ecological Clerk of Works (ECoW) will be appointed during the construction phase. Reference is made within this document as to when the ECoW would need to be present in order to implement mitigation.
- 4.5. The appointed Site Manager will be responsible for the day-to-day implementation of the CEMP: Biodiversity and ensuring that the site staff and contractors adhere to the measures set out within the CEMP: Biodiversity. The Site Manager will also be responsible for identifying when the ECoW is required based upon the recommendations in this report.

## 5 PROTECTION MEASURES - HABITATS

5.1. This section details the practical measures to avoid or reduce impacts on habitats within the Approved Development Site. This includes physical measures, timing restrictions, sensitive working practices and biosecurity protocols.

### General measures

5.2. The following general measures will be followed:

#### Pollution - prevention

- The works will be carried out in accordance with Guidance for Pollution Prevention (GPPs)<sup>16</sup> to prevent pollutants from entering the water table and other habitats and to appropriately deal with any pollution incidents should they arise.

#### Pollution - chemical contamination

- All chemicals will be carefully stored within the site compound/s.
- Should any chemical spills occur then they must be traced, recorded and addressed in compliance with COSHH.
- A spill kit must be available at all times.
- Absorption kit must be available at all times.
- Information on dealing with chemical spills is contained in PPG21 'Dealing with Spills' and a copy of this guidance should be kept on site during the construction works.
- If required, any refuelling of vehicles or any use of chemicals is to be carried out within designated areas on an impermeable surface.
- Should any drums be damaged or leaking then these should be removed from the site immediately and disposed of in an appropriate manner.

#### Pollution - dust

- Any exposed areas of soil and piles of sand, soil or other small particle materials

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<sup>16</sup> Available at: <http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/>

should be kept damp and/or covered by a geotextile membrane whilst not being worked on, especially on days of high winds.

- Geotextile membrane must be installed on the Heras fencing surrounding the site.
- Dust suppression is to be used across the Approved Development Site, running surfaces are to be kept clean and watered down where required. Dust generation is to be reduced by suppression systems, (water, air extraction, etc) in accordance with each task.

#### Groundworks

- If soil is imported to the site, areas where topsoil is used must be checked annually between May and September. If any soil is imported to the site, it must be sourced from an approved supplier and a record should be made as to where the imported soil is distributed. The check will comprise a search for invasive species, such as Japanese knotweed *Fallopia japonica*.

#### Site compound/s

- All general construction material will be carefully stored within the site compound/s.

#### Trees

- Root protection Zones (RPZs) will be established around trees to be retained in line with BS5837:2012, through use of Heras fencing or similar.
- Where tree removal or pruning is required, such works are to be carried out in accordance with the British Standard BS3998:2010 'Tree Work Recommendations', by recognised tree contracting companies from the Arboricultural Association's list of registered contractors. Proof of experience and insurance provision will be required, and any timing restrictions detailed for the protection of fauna will be adhered to.
- No trees to be retained shall be used for anchorage or winching purposes.
- Any diseased wood should be removed from the site and disposed of in a safe

manner.

#### Waste management

- Materials on-site must be recycled within the completed development/recycled at suitable facilities offsite/disposed of at suitable facilities off-site as appropriate with no dumping of waste on or adjacent to the Approved Development Site under any circumstances.
- Waste from the construction works will be placed into skips and returned to waste recycling centres.
- Pallets will be kept and recycled for future use and collected for recycling by contractors where required. Timber waste will be recycled for use on the Approved Development Site and where appropriate collected in dedicated skips.

5.3. Plasterboard will be separated within dedicated skips.

#### **Retained Habitat**

- 5.4. As seen in **Appendix 5** 'Soft Landscape Proposal'<sup>5</sup> the Approved Development will retain partial woodland habitat to act as a boundary around the Approved Development Site. The southern area of the Approved Development site is to remain and protected, this includes mixed woodland habitat and the non-priority pond.
- 5.5. In the absence of adequate protection there is the potential for on site trees to be negatively impacted by an increase in vibration and dust during construction activities. In addition, trees could be damaged by the tracking of vehicles or earthworks if root protection areas are not fenced off.
- 5.6. Root Protection Areas (RPAs) and a Tree Protection Plan (TPP) will need to be established in line with BS5837:2012. These will be clearly marked out through use of Heras Tree Protection Fencing (TPF) or similar in advance of works commencing. Heras fencing is to be checked at least weekly to ensure it remains in the correct position and remains in good condition.
- 5.7. The entire southern woodland retained area is to be provided a root protection area, that prevents any storage of material or vehicle access into the area, to prevent disturbance to the area and non-priority pond.
- 5.8. The retained vegetation and their RPAs are designated 'Biodiversity Protection Zones' and will be protected throughout the construction phase through fencing as outlined above. During construction the vegetation within the TPF will be unmanaged which will provide a refuge for wildlife.



## 6 PROTECTION MEASURES - SPECIES

### General measures

6.1. General measures will be adopted to safeguard any wildlife that may be present on the Approved Development Site during site preparation and construction phases. These are as follows:

- Where possible machinery and building materials should be stored in containers, on raised pallets or on areas of hardstanding.
- Any excavations will be covered at night. Where this is not possible a means of escape must be provided in the form of a ramp to allow trapped fauna to escape.
- Excavations must be managed to avoid the formation of temporary waterbodies.
- All temporarily exposed pipes must be capped overnight to prevent animals gaining access and later becoming trapped.
- The storage of any chemical within the construction site will be contained in such a way that they cannot be consumed or knocked over by any wildlife.

### Lighting

6.2. In the absence of appropriate precautionary measures, lighting during the construction phase could disturb nocturnal wildlife, including bats, which use the Approved Development Site for foraging and commuting.

6.3. To minimise the impact of the proposed development on commuting and foraging bats, the lighting scheme will be sensitively designed. During the construction phase, the following mitigation will be followed:

- There are limits to hours for noisy works, which will also limit the hours where construction site lighting is required. Temporary lighting during the construction phase will be minimised to task related lighting only and must only be used if absolutely required. Temporary and task-specific lighting may be required during working hours in the winter months. No artificial lighting will be left on outside of working hours.
- Any lighting must be directed within the construction site to minimise light spill on adjacent habitats, especially the retained southern habitat and ancient woodland habitat to the east of the Approved Development Site.

- Where security lighting is required, it is recommended that these are motion-activated with hooded luminaires, and these must be directed away from vegetated boundaries and trees. 'Warm white' light (~2700-3000K, >550nm peak wavelength) with no UV component should be used to avoid the most disruptive wavelengths to bats.
- No lighting will be directed towards or in the vicinity of any enhancements for fauna e.g. bat boxes.
- If the schedule of works needs to be amended to include the use of lighting that is not in line with the recommendations above, then an ecologist will be consulted prior to lighting being installed on-site.

### *Amphibians*

- 6.4. Only a small number of amphibians were observed during the reptile absence/presence survey 25th April – 1st August 2019. However, there is potential for amphibians to be in the immediate area due to the presence of the non-priority pond, therefore precautionary measures are to be followed.
- Any trenches/pits will be inspected each morning to ensure no animals have become trapped overnight.
  - Spoil heaps will need to be inspected daily for excavations to ensure no wildlife are present.
  - Ground vegetation cutting and ground removal will require two stage clearance - this achieved by cutting the vegetation in stages to ground level using strimmers, starting from the centre of the grassland habitat moving outwards towards the boundary. The first cut will be to a height no less than 12-15cm, and the second can be to ground level. This is to encourage wildlife to leave the habitat and move towards suitable boundary habitats. An ecologist is to be present during any two-stage vegetation clearance. In addition, if the ground requires stripping of vegetation using machinery, a suitably qualified EcOW is present to monitor removal.
  - Clearance is to be carried out in warm, dry conditions to ensure any individuals are fully active.

## Bats

### *Commuting and foraging bats*

- 6.5. The general lighting measures outlined above will ensure that foraging and commuting bats can continue to use habitats and features within the Approved Development Site during the construction phase.

### *Roosting bats*

- 6.6. There are several mature trees with suitability for roosting bats within the Approved Development Site.
- 6.7. Although three trees were subject to an endoscope survey that showed no evidence of roosting bats on 26<sup>th</sup> July 2024, seven other mature trees have been identified in previous surveys with roosting potential. In addition as woodlands are a transitional habitat with woodpecker holes and lifted bark forming at any given time, sensitive precautionary works will need to be followed;
- The 10 mature trees to be removed with the Approved Development Site will be inspected by aerial and ground inspection prior to soft felling. The tree inspection and soft felling will be carried out and supervised by a licenced ecologist. Optimal soft felling period is between March- May and between August to November (no work is to take place during June, July and August due to maternity season). Soft felling is oriented with weather conditions, as long as the weather remains 5 degrees and is mild soft felling may persist into November, however if weather conditions drop to under 5 degrees<sup>17</sup> or any cold snaps for a prolonged period of time, all works will stop immediately due to hibernation season.
  - If a bat is found within a tree and/or limb, the tree will remain in-situ for 24 hours to allow for the bat to leave.
  - Soft felling comprises felling the tree in sections, ensuring the potential roosting feature is not cut and lowering it to the ground. Cut wood will be left overnight to ensure any remaining fauna can disperse of its own accord.
- 6.8. Schwegler 1FF Bat Box is to be positioned in south/south easterly aspect on each residential dwelling (13 1FF Bat boxes in total). The 1FF Bat Box is to be positioned 4m above ground, ideally under the eaves and away from doors and windows to avoid conflict between new residents and

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<sup>17</sup> Koch, M, et al. (2023) 'How weather triggers the emergence of bats from their subterranean hibernaculum'. *Scientific Reports* 13 (6344).

wildlife.

- 6.9. Schwegler 2F Bat Box is to be installed on the 11 trees of the retained woodland within the Approved Development Site. The bat boxes positioned on trees are to face different aspects to provide a variety of microclimates to encourage uptake, the boxes are to be positioned between 4-6m above the ground.
- 6.10. The provision of bat boxes must be kept in mind during the construction phase of the development. Integrated bat boxes will be incorporated in the proposed development. These boxes must be installed during the construction phase and are difficult to fit retrospectively. It is recommended that roosting provision is included within the architect's drawing to ensure boxes are installed as required.
- 6.11. No lighting is to be directed at the bat boxes, nor are they to be situated near a source of artificial lighting.

#### *Badger and hedgehog*

- 6.12. Mammal tracks were observed during the Updated UK Hab Survey on 1<sup>st</sup> July 2024. Although no mammal tracks identified badgers as present, the Approved Development Site provides suitable habitat for commuting and foraging mammals.
- 6.13. To protect hedgehogs and badgers, the following good practice measures will be adhered to throughout the construction phase within Approved Development Site
- Trenches will be covered at the end of each working day and any temporarily exposed pipes will be capped to prevent hedgehog, badgers and other small mammals from gaining access during the night.
  - Any trenches or deep pits which must be left open overnight will be provided with a means of escape should an animal enter. This would simply be in the form of a roughened plank of wood placed in the trench as a ramp to the surface
  - Any trenches/pits will be inspected each morning to ensure no animals have become trapped overnight.
  - Spoil heaps will need to be inspected daily for excavations to ensure no wildlife are present

- Spoil heaps will need to be inspected daily to for excavations to ensure no wildlife are present

### *Birds*

- 6.14. There is the potential for nests to be destroyed during the construction phase during the removal of trees. There is also the potential for nesting birds to be disturbed by construction noise, dust and vibration.
- 6.15. To avoid impacts on nesting birds, ideally habitat should be removed outside of bird nesting season, which is generally considered to be February to August. However, as this doesn't comply with soft-felling period, trees are to be inspected by a suitability qualified ECoW within 24 hours prior to works starting. If a nest is identified, the ECoW will establish a suitably sized buffer around the nest with high visibility tape (usually 5m dependent on species). No works will be permitted within the buffer, which must remain in place and undisturbed until the ECoW has confirmed that the young have fledged and that the nest is no longer in use. If it is not possible to fully access vegetation for checking prior to works, the ECoW will supervise the clearance work, ensuring a suitable methodology is adhered to. This work is to be undertaken using hand tools only. If a nest is identified in the absence of the ECoW, works will stop immediately and ACD Environmental Ltd will be contacted in the first instance.
- 6.16. To mitigate for the loss of the habitat and provide nesting opportunities, a total of three types of bird boxes are to be incorporated in the Approved Development Site; Schwegler 1SP Sparrow Terrace, Vivira Pro Seville Bird Box and Vivara Pro Barcelona Bird Box.
- 6.17. The Schwegler 1SP Sparrow Terrace is to have three incorporated into each residential development, position 3-5m, ideally directly under the eaves, and out of prevailing weather conditions, between north and east aspects. House sparrows *Passer domesticus* are a Biodiversity Action Plan (BAP) species and red listed bird species, indicating a decline in the population, therefore these enhancements will encourage nesting opportunities.
- 6.18. Vivara Pro Seville Bird Box is a nesting bird box suitable for blue tits *Cyanistes caeruleus*, tree sparrows *Passer montanus*, house sparrow, great tit *Parus major* and many more small passerine species. Five enhancements are to be positioned on various retained trees within the Approved Development Site, at 3-5m above ground level between north to east aspects.
- 6.19. The Vivara Pro Barcelona Bird Box is an artificial enhancement for a range of birds including but not limited to wrens *Troglodytidae*, European robins *Erithacus rubecula*, spotted flycatchers *Muscicapa striata*, pied *Motacilla alba* and grey wagtails *Motacilla cinerea*, song thrushes *Turdus philomelos* and blackbirds. As a blackbird nest has been recorded in the updated walkover survey, this

enhancement will provide further nesting opportunities for species known to nest in the woodland. A total of four of these enhancements are to be incorporated across the Approved Development Site, positioned a minimum of 3m above ground level, ideally near undergrowth such as ivy to provide cover for the bird box.

6.20. Locations of the artificial enhancement within the Approved Development Site are shown within the Soft Landscape Proposal sheets 1-3<sup>5</sup>, as seen in **Appendix 6,7,8**.

6.21. The provision of bird boxes must be kept in mind during the construction phase of the development. Integrated boxes must be installed during the construction phase and are difficult to fit retrospectively. It is recommended that nesting provision is included within the architect's drawing to ensure boxes are installed as required.

## 7 SCHEDULE OF WORKS

- 7.1. The work schedule relating to ecology during the construction phase is set out within **Table 2** below.
- 7.2. In the instance that any deviance from the schedule below is required, the Developer and/or the Site Manager is to contact an ecologist at ACD Environmental Ltd to confirm agreement to any amendments.
- 7.3. A written record should be kept of actions taken to protect the biodiversity at the Approved Development Site during the construction phase. This should include a record of ECoW presence, any discovery of protected/notable species and actions taken to protect wildlife and their habitats. If required, these documents should be submitted to Mid Sussex District Council.
- 7.4. The colour coding within **Table 2** is as follows:

|                                                                                     |                                                                |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------|
|    | Suitable months - no ECoW supervision required                 |
|   | Suitable months - ECoW supervision/ecologist presence required |
|  | Unsuitable months                                              |

- 7.5. Where ECoW presence is required the relevant species/species group consideration is demonstrated as follows:

|                                                                                     |               |
|-------------------------------------------------------------------------------------|---------------|
|  | Nesting birds |
|  | Roosting Bats |

**Table 2:** Schedule of works during construction showing suitable months and when ECoW supervision/ecologist presence will be required.

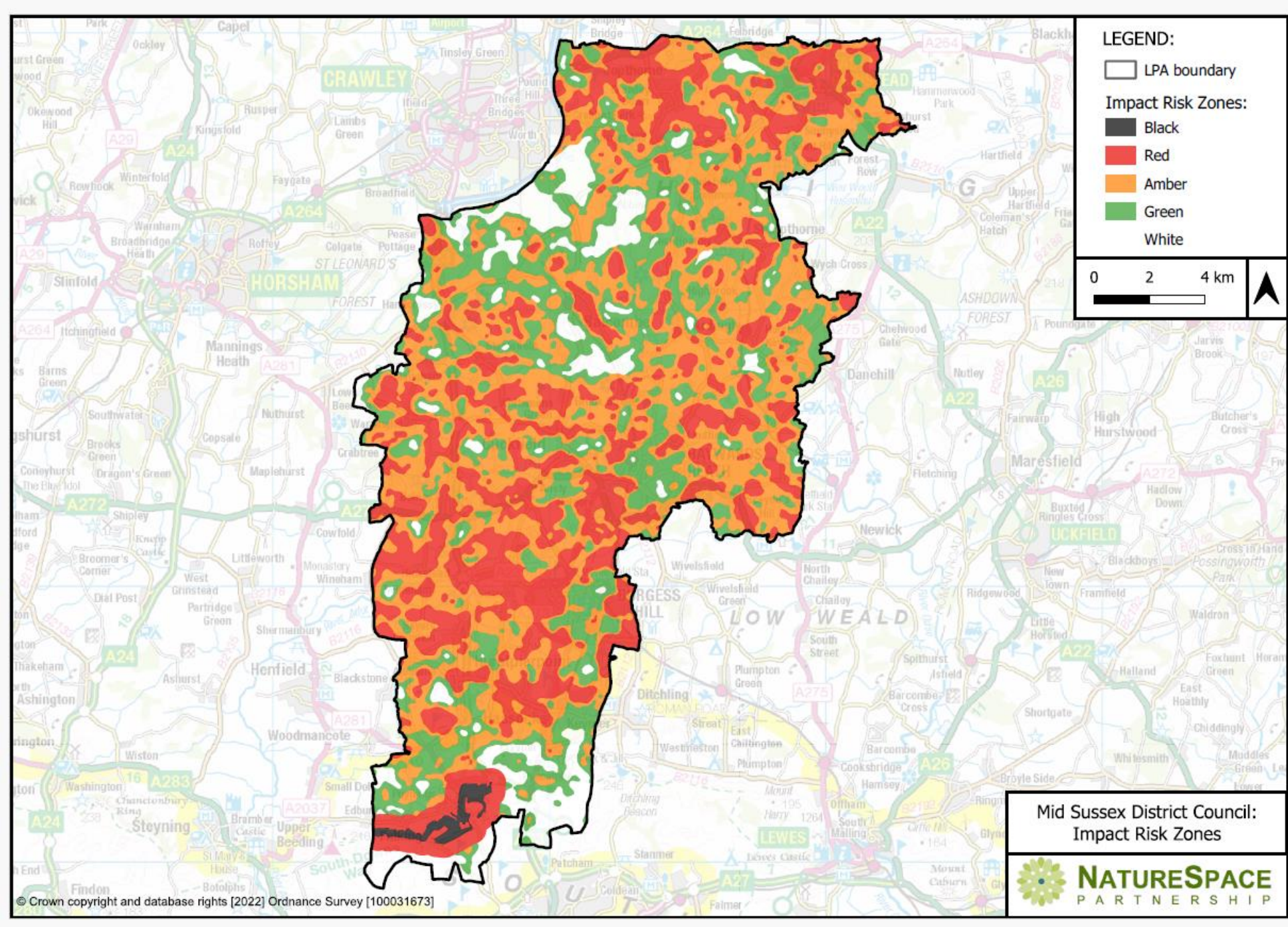
| Action                                                                                                                                                                                                                                                               | J | F                                                                                   | M                                                                                   | A                                                                                   | M                                                                                   | J                                                                                   | J                                                                                   | A                                                                                   | S                                                                                   | O                                                                                   | N | D |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---|---|
| <b>SITE CLEARANCE WORKS</b>                                                                                                                                                                                                                                          |   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |   |   |
| Removal of trees and scrub. Nesting bird checks will be carried out within 24 hours prior to demolition by the ECoW if works take place between February to August.                                                                                                  |   |  |  |  |  |  |  |  |                                                                                     |                                                                                     |   |   |
| Soft felling of all trees within the Approved Development Site. ECoW is to be present and supervise during soft felling.                                                                                                                                             |   |                                                                                     |  |  |  |  |  |  |  |  |   |   |
| If ground vegetation is to be cut back or stripped, two phase cutting and/or vegetation scaping will be required with an ecologist present.                                                                                                                          |   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |   |   |
| <b>THROUGHOUT CONSTRUCTION PHASE</b>                                                                                                                                                                                                                                 |   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |   |   |
| Checks to be carried out each day to include a check of any exposed excavations/pipes to ensure no animals have become trapped overnight, and a check of any mounds for potential mammal burrows.                                                                    |   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |   |   |
| Checks to be carried out at the end of each working day to include: ensuring the site is clean and tidy, all chemicals/materials are safely stored, any excavations are covered, pipes are capped and all lighting (except security lighting) has been switched off. |   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |   |   |
| Weekly check of all protective fencing and signage to ensure this is still in place and functioning.                                                                                                                                                                 |   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |   |   |
| Ensure inclusion of integrated bat and bird boxes throughout the build.                                                                                                                                                                                              |   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |   |   |

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## 8 CONCLUSIONS

- 8.1. This CEMP: Biodiversity has been produced to fulfil **Condition 8** of the planning consent related to planning ref **DM/24/2704** for the Approved Development Site.
- 8.2. The Developer will be responsible for ensuring that the Site Manager is aware of the mitigation detailed within this report and that the mitigation is carried out accordingly. The Site Manager is responsible for making sure that the ECoW is contacted when there are any potential risks to protected species or habitats of ecological value, as identified within this report.
- 8.3. All works must be undertaken as detailed in this report, to include the sensitive working practices, phasing of work as appropriate and working within the seasonal restrictions detailed. It is essential that the lighting specification detailed is adhered to in full to protect the integrity of the commuting corridors found to be used by bats. The methods detailed will protect the value of the Approved Development Site to protected species.
- 8.4. This CEMP: Biodiversity is a working document and will be reviewed periodically by the Site Manager, with input from the ECoW as required. Any necessary changes will be agreed upon and included within this CEMP: Biodiversity.
- 8.5. Providing that the mitigation measures recommended within this report are adhered to, the development will be in accordance with current legislation for protected and notable species present within the Approved Development Site.

APPENDIX 1: NATURE SPACE IMPACT RISK ZONE MAP



## APPENDIX 2: PJC CONSULTANCY BAT ROOSTING FEATURES MAP

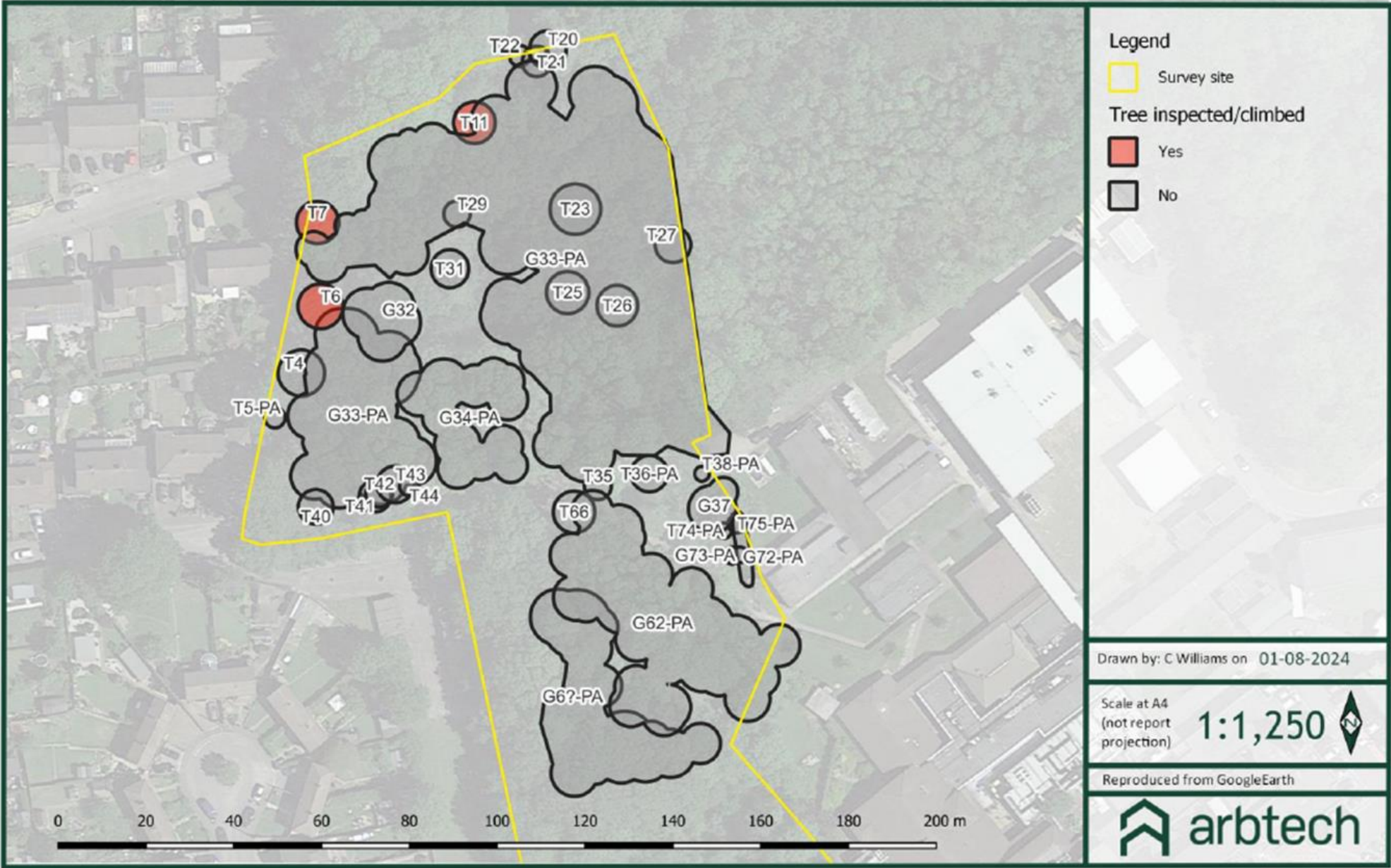


APPENDIX 3: ACD ENVIROMENTAL BAT ROOSTING FEATURES MAP



APPENDIX 4: ARBTECH BAT ROOSTING FEATURES MAP.

Appendix I: Survey map



# APPENDIX 5: SOFT LANDSCAPE PROPOSAL WHOLE SHEET.



## APPENDIX 6: SHEET 1 SOFT LANDSCAPE PROPOSAL



## APPENDIX 7: SHEET 2 SOFT LANDSCAPE PROPOSAL



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