



PRELIMINARY ECOLOGICAL APPRAISAL REPORT

SITE LOCATION

Shelley Arms,
Horsham

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24th July 2023

SEED REF
1616-PEA-V1-B

CLIENT
Stonegate Group

ARBORICULTURAL CONSULTANCY
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DOCUMENT CONTROL

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EXECUTIVE SUMMARY

Site Address	Shelley Arms, 16 Old Guildford Road, Broadbridge Heath, Horsham, West Sussex, RH12 3JU
Grid Reference	TQ 15186 31535
Approximate Site Area	0.1ha
Current Site Use	The site is currently unoccupied and vacant.
Designated Sites within Zone of Influence	The site partially falls within the Risk Impact Zone of numerous SSSI sites, the closest of which was located approximately 2.4km west of the site boundary.
Notable Habitat Features	No notable habitats were present onsite.
Notable species applicable to this assessment	<ul style="list-style-type: none"> • Amphibians • Reptiles • Bats (foraging and commuting) • Breeding birds • Hedgehog • Badger
Mitigation Recommendations	<ul style="list-style-type: none"> • A nesting bird check should be undertaken if any trees or buildings are to be removed within the nesting bird season (March – September inclusive). • A sensitive lighting strategy should be adopted for the boundary features. • Reasonable avoidance measures reptiles, amphibians, bats, badgers and hedgehog.
Recommended further surveys	No further surveys are deemed necessary to inform the planning application.
Recommendations for Mitigation	The National Planning Policy Framework (2021) highlights the requirement for planning policies and decisions to conserve and enhance the natural environment. The proposed development provides the opportunity to enhance the site and ecological enhancements have been recommended

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1. Introduction

Scope & Purpose

- 1.1.1. Seed Arboriculture Ltd were commissioned Stonegate Group to undertake a Preliminary Ecological Appraisal (PEA) at the Shelley Arms, Horsham. This report has been prepared to inform a planning application at the site.
- 1.1.2. The author of this report is Katie Bird MEnvSci, ACIEEM Principal Ecologist at Collington Winter Environmental Ltd. Katie is highly experienced managing schemes and has produced many ecological reports to inform planning management plans.

Location

- 1.1.3. Please refer to Figure 1.1 for the site location. The site is located approximately 2km west of Horsham town centre, within Broadbridge Heath. Old Guildford Road is located to the south and Weston Avenue to the east.



Figure 1 - Site Location Plan

Objectives

- 1.1.4. The objectives of the Preliminary Ecological Appraisal are as follows:
 - Identify the major habitats present.

- Ascertain the presence or potential presence of any legally protected or notable species or habitats.
- Identify any mitigation required and opportunities for strategic wildlife enhancements.

2. Methodology

Desk Study

- 2.1.1. An initial desk-based assessment of the site was undertaken to collate baseline data. The desk study included:
- Local data search obtained from Sussex Biodiversity Record Centre (SBRC) on the 21/07/2023.
 - Review of Magic.gov.uk website for details of any designated sites, notable habitats and presence of European Protected Species Licences.
 - Review of aerial and OS maps for habitat information, as well as determining locations of potential waterbodies to be considered in the assessment.
 - Review of potential habitat links on and off site, to determine the potential zone of influence of the proposed development.
 - On site consultation with the landowner which provided valuable information regarding historic land use and known species and habitats present within the site.

Vegetation & Habitat Assessment

- 2.1.2. An Ecological Appraisal of the site was undertaken by Genevieve Labram, Senior Ecologist. The survey was undertaken on the 18th July 2023. The weather on both dates was clear (2/8 oktas), with no precipitation, wind speed and 20°C.
- 2.1.3. The walkover survey was undertaken broadly in line with standard methodology as detailed in “JNCC Handbook for Phase 1 Habitat Survey” (2010). The assessment is undertaken with consideration of methodology as per “Preliminary Ecological Appraisal” (CIEEM, 2018).
- 2.1.4. A Phase 1 Habitat Plan has been produced and is presented in the Appendix of this report. The mapping is based on the “JNCC Handbook for Phase 1 Habitat Survey” (2010), though adjustments have been made based on judgement to demonstrate habitats in a clearer manner, or where standard guidance does not fit the conditions found on site.

Protected & Notable Species Assessment

- 2.1.5. A search for signs of protected and notable species of fauna was undertaken during the site walkover. This included both field signs of species, as well as potential for species to be present based on habitat availability.
- 2.1.6. The searches broadly included the following:
- Assessment of waterbodies on site and within 250m of the site boundary, and terrestrial habitats for suitability to support notable amphibians.
 - Searches for field signs of, and habitat suitability for bats.
 - Suitability of habitats to support reptiles, and searches for incidental field signs.
 - Searches for field signs of badger (*Meles meles*), including setts, mammal paths, snuffle holes, badger hair and latrines to indicate activity.



- Assessment of the suitability of the site to support notable bird species and recording any field sightings of birds during the walkover.
- Assessment of the sites ability to support notable invertebrates and flora.
- Searches for non-native invasive species.

Bat Activity Assessment

2.1.7. The commuting and foraging assessment methodology is based on information contained within the Bat Conservation Trust guidelines 3rd edition (Collins, 2016). The categorisation within this report is based on that set out in Table 1, which is used as a basis for determining the requirement for further surveys and/or mitigation.

Table 1 – Bat Activity Assessment

Bat Roosting Potential	Description
Negligible	No features on site suitable for use by commuting and foraging bats.
Low	Habitat that could be used by small number of commuting bats such as; defunct hedgerow, isolated features not well connected to surrounding habitat or Isolated habitat that could be used by a small number of foraging bats such as a lone tree or patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by commuting bats such as lines of trees, scrub or linked back gardens. Habitat connected to wider landscape that could be used for bats for foraging such as; trees, scrub, grassland or water.
High	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting or foraging bats such as; river valleys, streams, hedgerows, lines of trees or woodland edge. Site is close to or connected to known roosts.

Preliminary Roost Assessment

- 2.1.8. A Preliminary Roost Assessment (PRA) of the site was undertaken by Genevieve Labram, who holds a Class 2 Bat Survey Licence from Natural England (Reference 2023-11100-CL18-BAT).
- 2.1.9. The survey was undertaken following guidance set out in Collins (2016). This includes undertaking a detailed internal and external inspection of any features to compile information on potential and actual bat entry/ exit points, roosting locations and evidence of bats. The trees were assessed as per categories listed in Table 4.1 Collins (2016) and reproduced in **Table 2**.

Table 2 – Preliminary Roost Assessment

Bat Roosting Potential	Description
Negligible	Negligible features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/ or suitable surrounding habitats to be used on a regular basis by larger numbers of bats.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats, but unlikely to support a roost of high conservation status.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and for longer periods of time.

Survey Limitations

- 2.1.10. This survey does not constitute a full botanical survey. Key species for each habitat type have been identified to give a broad representation of habitats present within the site.
- 2.1.11. It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the natural environment. This survey does not constitute a full botanical survey. Plant species may have been under-recorded, unidentifiable or not visible due to a number of factors including the time of year the survey was carried out.
- 2.1.12. The protected species assessment provides a preliminary view of the likelihood of protected species occurring on the site. This is based on the suitability of the habitat, known distribution of the species in the local area (provided by data searches) and any direct evidence within the survey area.
- 2.1.13. The findings of this report represent the professional opinion of qualified ecologists and do not constitute professional legal advice. The client may wish to seek professional legal interpretation of the relevant wildlife legislation cited within this document.
- 2.1.14. Two offsite ponds were located within 250m of the site boundary which could not be accessed to assess suitability for great crested newts.

3. Survey Results

Site Context

- 3.1.1. The site was located within the village of Broadbridge Heath, approximately two miles west of the town of Horsham. The immediate vicinity of the site is mixed residential dwellings, and associated gardens and green spaces. In the wider landscape, the town of Horsham dominates the area east of the site, while agricultural fields and scattered houses comprise the areas north, west, and south.

Designated Sites

- 3.1.2. There were three Sites of Special Scientific Interest (SSSI) found within 5km from the site boundary:
- Slinfold Stream and Quarry SSSI was located approximately 2.4km west of the site boundary and is a site of geological importance due to rare exposures of the Horsham Stone Member of the lower Weald Clay Group.
 - Warnham SSSI was located approximately 4.1km northeast of the site boundary and is of geological significance. The Langhurst Wood brick pit exposes the lower Weald Clay Group above the Horsham Stone and is one of the most important sites in this unit, providing sedimentary evidence of freshwater, brackish, and brackish-marine environments.
 - St. Leonards Park Ponds SSSI was located approximately 4.6km east of the site boundary and comprises species-rich ponds along a wooded stream, with areas of fen and marginal vegetation supporting diverse botanical communities. The area also supports diverse species of Odonata, including some rare species.
- 3.1.3. There was one Local Nature Reserve (LNR) found within 5km from the site boundary, the Warnham LNR located approximately 1.7km northeast from the site boundary.

Habitats

- 3.1.4. Please refer to **Appendix 2** for the Habitat Map for the site, and photographs are located within **Appendix 1**.

Developed Land; Sealed Surface

- 3.1.5. Much of the site comprised developed land; sealed surface where no vegetation was required.

Mixed Scrub

- 3.1.6. The western portion of the site comprised mixed scrub. It was mainly dominated by bramble (*Rubus fruticosus* agg.), with the addition of Lawson's cypress (*Chamaecyparis lawsoniana*), common ash (*Fraxinus excelsior*), sycamore (*Acer pseudoplatanus*) and goat willow (*Salix caprea*).

Modified Grassland

- 3.1.7. A parcel of modified grassland was located to the south of the site and managed to a short sward height. Species included; rough meadow grass (*Poa trivialis*), common daisy (*Bellis perennis*), hawkbit (*Leontodon* sp.) and greater plantain (*Plantago major*).

Individual Trees

- 3.1.8. A Deodar cedar (*Cedrus deodara*) was located to the south of the site.

Non-Native Hedge

- 3.1.9. A common privet (*Ligustrum vulgare*) hedge was located on the western aspect.

Species

Flora

- 3.1.10. The data search returned 19 records of notable flowering plants within 1km of the site boundary. species included wild strawberry (*Fragaria vesca*), crosswort (*Cruciata laevipes*), bluebell (*Hyacinthoides non-scripta*), Welsh poppy (*Meconopsis cambrica*), fringed water-lily (*Nymphoides peltata*), stinking chamomile (*Anthemis cotula*), and sanicle (*Sanicula europaea*). The records mainly relate to the nearby LNR site.
- 3.1.11. No notable flora was observed during the survey, which is an optimal survey period for flora identification. Based on the limited floristic diversity and no notable species observed, notable flora is considered absent from site.

Invertebrates

- 3.1.12. The data search returned a total of 88 records of notable invertebrates within the local area. Species included; cinnabar (*Tyria jacobaeae*), white ermine (*Spilosoma lubricipeda*), buff ermine (*Spilosoma lutea*), common wainscot (*Mythimna pallens*), purple emperor (*Apatura iris*), and downy emerald (*Cordulia aenea*). These records mainly relate to the local LNR site.
- 3.1.13. The scrub is anticipated to be of some value; however, it was dominated by bramble, providing a monoculture for flowering plants for food resources. Overall, notable invertebrates may utilise the site for foraging but are not thought to utilise the site in significant numbers.

Amphibians

- 3.1.14. The data search returned multiple records of great crested newt (*Triturus cristatus*), in addition to common amphibian species such as smooth newt (*Lissotriton vulgaris*), common toad (*Bufo bufo*) palmate newt (*Lissotriton helveticus*) and common frog (*Rana temporaria*).
- 3.1.15. There were twelve Granted European Protected Species Licences for great crested newt found within 5km of the site boundary, based off Magic:
- 2015-9112-EPS-MIT was located approximately 1km southwest of the site boundary and allowed for impact on a breeding site, damage to a breeding site, damage to a resting place, destruction of a breeding site, and destruction of a resting place between 20/04/2015 and 31/12/2028.
 - 2020-47633-EPS-MIT was located approximately 1.3km south of the site boundary and allowed for impact on a breeding site, damage to a resting place, destruction of a breeding site, and destruction of a resting place between 08/07/2020 and 31/12/2025.
 - 2015-11069-EPS-MIT was located approximately 1.7km northwest of the site boundary and allowed for damage to and destruction of a resting place between 30/06/2015 and 30/06/2016.

- EPSM2011-2967 was located approximately 1.75km northwest of the site boundary and allowed for destruction of a resting place between 25/10/2013 and 30/06/2017.
 - 2017-31672-EPS-MIT was located approximately 2.9km southeast of the site boundary and allowed for impact on a breeding site, damage to a resting place, destruction of a breeding site, and destruction of a resting place between 20/10/2017 and 30/06/2021.
 - EPSM2008-37 was located approximately 3.6km northeast of the site boundary and allowed for impact on a breeding site, destruction of a breeding site, and destruction of a resting place between 17/05/2010 and 16/05/2012.
 - 2020-48313-EPS-MIT was located approximately 3.8km south of the site boundary and allowed for damage to and destruction of a resting place between 05/08/2020 and 31/12/2026.
 - 2018-33344-EPS-MIT was located approximately 4.4km west of the site boundary and allowed for damage to and destruction of a resting place between 14/03/2018 and 30/06/2019.
 - 2015-10913-EPS-MIT was located approximately 4.5km west of the site boundary and allowed for damage to and destruction of a resting place between 01/06/2015 and 01/07/2020.
 - 2020-44385-EPS-MIT-1 was located approximately 4.7km northeast of the site boundary and allowed for damage to and destruction of a resting place between 08/04/2020 and 28/02/2022.
 - 2019-39148-EPS-MIT-3 was located approximately 4.8km northeast of the site boundary and allowed for impact on a breeding site, damage to a resting place, destruction of a breeding site, and destruction of a resting place between 09/08/2019 and 31/07/2023.
 - EPSM2011-2836 was located approximately 4.9km west of the site boundary and allowed for destruction of a resting place between 11/12/2012 and 01/07/2020.
- 3.1.16. No ponds were located onsite whilst two ponds were located within 250 m of the site boundary. As great crested newts' upper dispersal limit is generally considered to be up to 250 m from a waterbody (though occurrence of greater distances does exist). Please refer to Figure 2 for the location of the ponds. The ponds were located approximately 225m and 250m east of the site boundary.

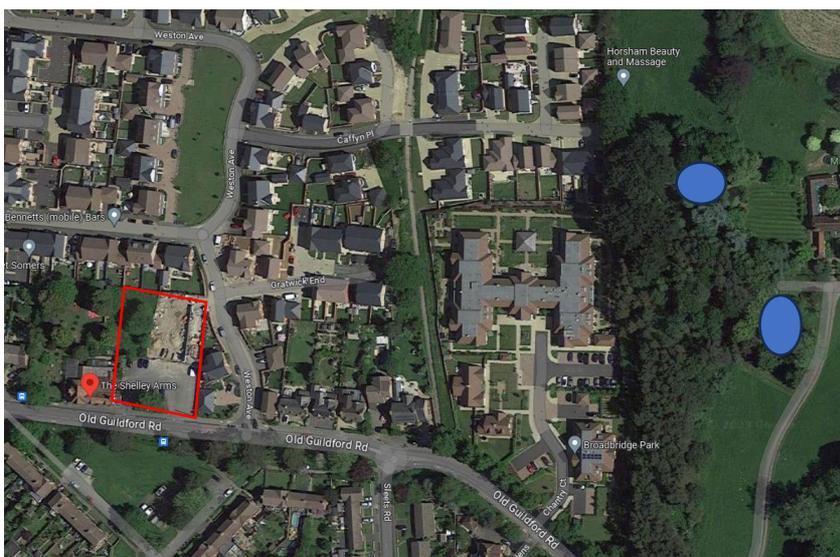


Figure 2 - Site Location indicated in red and ponds within 250m in blue

- 3.1.17. The ponds could not be accessed during the survey to inspect for suitability for great crested newts, as such, the presence of the species within the offsite ponds is unknown. The site is separated by residential housing and considered isolated from suitable habitats within the direct area, with no direct commuting feature between the site and the ponds, limiting the likelihood of great crested newts commuting site. In addition, the majority of the site was considered unsuitable for the species in their terrestrial phase (i.e., developed land; sealed surface). The scrub may be of value and will provide suitable cover.
- 3.1.18. The presence of great crested newts within the offsite ponds is unknown.

Reptiles

- 3.1.19. The data search returned multiple records of slow worm (*Anguis fragilis*), grass snake (*Natrix helvetica*), and common lizard (*Zootoca vivipara*), with a single record of adder (*Vipera berus*) within 1km of the site boundary.
- 3.1.20. The site provides limited value for reptiles, given the majority of the site comprised developed land; sealed surface which lack the structure and habitat quality to support the species group. The scrub may be of value for the species. But as stated, the site is isolated from habitats that may be of value. If reptiles are present, the site is considered to be of limited value and would not be present in significant numbers.

Birds

- 3.1.21. A total of 42 records of birds were returned during the 1km data search. Records included (not limited to); red kite (*Milvus milvus*), cuckoo (*Cuculus canorus*), Cetti's warbler (*Cettia cetti*), barn owl (*Tyto alba*), nightingale (*Luscinia megarhynchos*), swift (*Apus apus*), willow warbler (*Phylloscopus trochilus*), dunnoek (*Prunella modularis*), mistle thrush (*Turdus viscivorus*), and song thrush (*Turdus philomelos*).
- 3.1.22. The site provides limited value for nesting birds, with the scrub providing some foraging and nesting value. It is anticipated notable bird species associated with residential may utilise the site, but the site is not considered to be of significant value.
- 3.1.23. Ground nesting birds are not anticipated to be on site due to the presence of dense scrub and being located within a residential area, with risk of predating domestic animals.

Bats

- 3.1.24. Multiple records of bats were returned within 1km of the site boundary, relating to common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared (*Plecotus auritus*), serotine (*Eptesicus serotinus*), noctule (*Nyctalus noctula*), Bechstein's (*Myotis bechsteinii*), Natterer's (*Myotis nattereri*) and *Myotis* spp. bats.
- 3.1.25. There were sixteen Granted European Protected Species Licences for bat species found within 5km of the site boundary, based off Magic:
- EPSM2013-6030 was located approximately 1km southwest of the site boundary and allowed for the destruction of a resting place for common pipistrelle and soprano pipistrelle between 25/07/2013 and 31/12/2014.

- 2019-43782-EPS-MIT-1 was located approximately 2.15km northwest of the site boundary and allowed for destruction of a resting place for common pipistrelle, soprano pipistrelle, brown long-eared, and Nathusius' pipistrelle (*Pipistrellus nathusii*) bats between 08/06/2020 and 05/06/2025.
- 2016-26580-EPS-MIT was located approximately 2.2km southeast of the site boundary and allowed for damage to a resting place for common pipistrelle between 17/11/2016 and 17/11/2016.
- 2017-31475-EPS-MIT was located approximately 2.6km north of the site boundary and allowed for damage to and destruction of a resting place for brown long-eared bats between 17/10/2017 and 30/10/2022.
- 2015-8529-EPS-MIT was located approximately 3.1km north of the site boundary and allowed for the destruction of a resting place for common pipistrelle and brown long-eared bats between 01/04/2015 and 30/09/2017.
- 2014-3464-EPS-MIT was located approximately 3.2km east of the site boundary and allowed for damage to and destruction of a resting place for common pipistrelle bats between 07/10/2014 and 30/11/2019.
- 2015-8735-EPS-MIT was located approximately 3.3km northeast of the site boundary and allowed for the destruction of a resting place for common pipistrelle and brown long-eared bats between 28/04/2015 and 22/04/2020.
- 2017-31198-EPS-MIT was located approximately 3.3km south of the site boundary and allowed for damage to and destruction of a resting place for common pipistrelle and brown long-eared bats between 11/10/2017 and 31/12/2018.
- 2017-29072-EPS-MIT was located approximately 3.4km west of the site boundary and allowed for the destruction of a resting place for brown long-eared bats between 08/05/2017 and 30/09/2023.
- 2015-8712-EPS-MIT was located approximately 3.4km southeast of the site boundary and allowed for impact on a breeding site and destruction of a breeding site for common pipistrelle and soprano pipistrelle bats between 28/04/2015 and 31/10/2015.
- 2019-40731-EPS-MIT was located approximately 3.5km northeast of the site boundary and allowed for destruction of a resting place for common pipistrelle, soprano pipistrelle, and Daubenton's (*Myotis daubentonii*) bats between 21/06/2019 and 16/06/2024.
- EPSM2013-6687 was located approximately 3.8km east of the site boundary and allowed for the destruction of a resting place for common pipistrelle and brown long-eared bats between 28/11/2013 and 30/09/2015.
- 2015-8372-EPS-MIT was located approximately 4km southwest of the site boundary and allowed for the destruction of a resting place for common pipistrelle and brown long-eared bats between 23/04/2015 and 30/04/2020.
- EPSM2012-4231 was located approximately 4.3km east of the site boundary and allowed for the destruction of a resting place for brown long-eared bats between 09/08/2012 and 31/12/2014.
- EPSM2013-6393 was located approximately 4.3km northwest of the site boundary and allowed for the destruction of a resting place for common pipistrelle and brown long-eared bats between 09/10/2013 and 30/09/2015.
- EPSM2012-5076 was located approximately 4.7km northeast of the site boundary and allowed for the destruction of a resting place for brown long-eared bats between 19/10/2012 and 30/06/2013.



- 3.1.26. The two trees were assessed for roosting potential, where neither tree was found to have suitability to support PRFs for roosting bats. As such, the site does not have the suitability to support roosting bats.
- 3.1.27. The habitats on site are anticipated to provide value for foraging bats due to comprising dense scrub which will attract invertebrate prey. However, the site is isolated and not directly connected to habitats of greater value, and the site is not considered to be of significant value.

Badger

- 3.1.28. Data for badger (*Meles meles*) were not included within the data search obtained from SBRC due to local badger groups requesting confidentiality of these records.

Other Terrestrial Mammals

- 3.1.29. Multiple records of west European hedgehog (*Erinaceus europaeus*) were located within the 1km search area. Given the habitats present within the site including scrub, it is anticipated that hedgehog could be present within the site.

Non-Native Invasive Species

- 3.1.30. Multiple records of non-native invasive flora species were located within the 1km search area, including giant hogweed (*Heracleum mantegazzianum*), Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*), and Nuttall's waterweed (*Elodea nuttallii*). No non-native invasive species were observed during the survey onsite. However, cotoneaster (*Cotoneaster* sp.) was located within the adjacent beer garden, relating to Shelley Arms Pub.

Species discounted from assessment

- 3.1.31. Water vole, otter and white-clawed crayfish have been discounted from assessment as no aquatic habitats are located on site or within proximity. The closest aquatic habitat is related to the offsite ponds located 225m and 250m east of the site boundary.
- 3.1.32. Hazel Dormouse (*Muscardinus avellanarius*) mainly occur in southern counties, especially in Devon, Somerset, Sussex and Kent. The site is found to be isolated, surrounded by residential dwellings on all aspects. The scrub may have potential value, however due to the site being isolated, with no connecting habitats, to more suitable habitat for the species, hazel dormouse was considered absent.
- 3.1.33. Red squirrel have been discounted from the assessment. Red squirrel populations are limited to small areas of northern England and are not known to be present in the Scarborough area; with no previous records returned in the data search. It is anticipated that high abundances of grey squirrel are present within this region (Shuttleworth/RSST n.d.). This species will displace red squirrel through competition as well as cause increased red squirrel mortality through the spread of squirrel pox (The Mammal Society, 2020).

4. Mitigation Recommendations

Designated Sites

- 4.1.1. The site is located within the impact risk zone for three SSSIs within the local area. It is anticipated that the designated sites are a sufficient distance away and are separated by anthropogenic barriers such as the residential areas, such that no impacts as a result of development are anticipated. Whilst the development relates to the addition of two residential dwellings, which will not increase the number of visitors to the nearby designated sites, as such, no further consideration relating to designated sites is required.

Habitats

Scattered Trees & Hedgerows

- 4.1.2. It is recommended that replacement tree planting at a 1:2 ratio is required to compensate for loss of trees. It is recommended that the planting comprises native species and species known to be of value for the attraction of wildlife. This will include fruiting and flowering species.

Species

Amphibians

- 4.1.3. Great crested newts may be present within the two offsite ponds.
- 4.1.4. A Rapid Risk Assessment (RRA) was undertaken following advice from Natural England assessing whether a Mitigation License would be needed (if great crested newts are present within the two offsite ponds). Based on this assessment, without mitigation, there is a possibility of disturbance of terrestrial great crested newts should no mitigation be applied and no consideration of habitat condition and suitability.

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.01
Land >250m from any breeding pond(s)	No effect	0
Individual great crested newts	No effect	0
	Maximum:	0.01
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

- 4.1.5. "Green: offence highly unlikely" indicates that the development activities are of such a type, scale and location that it is highly unlikely any offence would be committed should the development proceed. Therefore, no licence would be required.
- 4.1.6. With the consideration of the Rapid Risk Assessment, the presence of anthropogenic barriers and the majority of the site comprising hardstanding, with negligible terrestrial value for the species, that the development can proceed without further survey or mitigation relating to the species.

Reptiles

- 4.1.7. Reptiles may be present onsite, however only low numbers are anticipated based on the location, habitat quality and site size. Due to the size of the site and limited habitats of suitability, it is deemed appropriate that Reasonable Avoidance Measures (RAMs) are to be followed during vegetation clearance, to minimise potential impacts on the species:
- An experienced Ecological Clerk of Works (ECoW) shall be appointed to ensure RAM's are enforced.
 - A copy of this method statement must be kept on site (we suggest having a laminated copy in the site office/ compound).
 - A walkover of the area should be undertaken by the ECoW to determine any change in status of the habitats/structures on site prior to the initiation of any works.
 - A toolbox talk by the appointed ECoW will be given to the site manager and all contractors working on site with respect to the surrounding habitats and potential for protected/notable species. A copy of species factsheets relating to reptiles and breeding birds will be provided for display within the site office.
 - Suitable vegetation is to be strimmed under ECoW to approximately 15cm in a northern to southern direction. It is to be checked by the ECoW following strimming to identify individuals. If discovered, they will be removed from the working area and covered. Once the areas are deemed reptile free, they are to be strimmed to ground level and maintained at this length for the remaining works.
 - Any excavations will be backfilled on the same day as excavation or checked by the ECoW immediately prior to backfilling. This also considers avoiding temporary water bodies which may be attractive to amphibians. If it is not possible to backfill on the same day, a ramp, will be provided in all excavations or alternatively, all excavations should be well-covered with plywood.
 - No piles of loose construction materials are to be created during works – all material will be kept on hardstanding, stored on pallets, removed immediately from the site or checked by an ECoW prior to being removed.
 - In the event reptiles are discovered, works will halt immediately and the ECoW will be contacted for advice. Contractors are not to handle reptiles unless informed to do so by the ECoW.
- 4.1.8. The precautionary destructive search work will be undertaken during the summer at a time of year when reptiles are active. The ecologist will be present during the strimming works. Any reptiles found during the destructive search will be relocated to the adjacent pub, which is under the client ownership.
- 4.1.9. During the construction period, the development zone will be maintained clear of vegetation in order to remove the likelihood of any reptiles re-colonising the site.

Breeding Birds

- 4.1.10. Nesting birds are anticipated to utilise the mixed scrub for foraging and nesting. This habitat is to be lost. The recommended tree replacement will provide compensatory nesting bird opportunities and integrated bird boxes could be used to minimise risk of impacting the local bird population.
- 4.1.11. Any vegetation removal should be undertaken outside of the breeding bird season (March to August, inclusive). If this is not possible, a suitably qualified ecologist should undertake a nesting bird check no more than 48 hours prior to removal. If nesting activity is observed, the nest(s) should be left in



situ until the young have fledged. A suitable buffer will be maintained and determined by the ecologist.

Bats

- 4.1.12. Bats may utilise the scrub for foraging purposes and will require removal to facilitate development. The recommended tree replacement will provide compensatory foraging opportunities.
- 4.1.13. Slow-flying species such as brown long-eared, which are known to be in the local area, are sensitive to lighting and may be impacted by the proposed development, should no mitigation for lighting be considered.
- 4.1.14. Any proposed lighting/existing lighting should follow the guidance outlined in the Institute for Lighting Engineers document “Guidance for the Reduction of Obtrusive Lighting” (2005) and BCT’s “Bats and Artificial Lighting in the UK” (2018).
- 4.1.15. An External Lighting Scheme had not been produced on the writing of this report. As such, the following recommendations are to be considered within the scheme during its condition, to minimise impacts of lighting. The recommendations are as follows:
- Keep site lighting to minimum levels.
 - Luminaries should lack UV elements and preferably LED lighting with a warm white light should be used over cool white light (ideally <2700Kelvin).
 - Lighting should feature peak wavelengths greater than 550nm.
 - Light placement should be downward facing to prevent excess horizontal or vertical light spill.
 - The use of integrated fittings such as cowls, shields, louvres and hoods, that effectively contain light spill from unintended areas.
 - Avoid illuminating habitats of value (i.e. pond, hedgerows and trees).
 - Use of timed security lights should be set on motion-sensors and using short, 1-minute timers, to minimise light use.
 - Column heights of lighting can be considered to minimise light spill.

Badgers

- 4.1.16. No badger setts were identified during the survey; however, they may be within the local area. The following Precautionary Working Methods will be adhered to during the construction phase to ensure that no badgers are impacted by the proposed development:
- Updated badger walkover to be completed immediately prior to the construction phase to confirm presence or absence of badgers.
 - All site operatives will be inducted to the potential presence of the species and the species legal protection.
 - All site operatives will be inducted as to identifying potential badger setts and should be vigilant if they suspect they locate a new sett during works and inform the site manager immediately. A minimum 20m buffer will be maintained from the potential sett until an ecologist has been to site.

- All excavations will be battened at a 45 degree angle or ramps to be positioned to allow escape should animals become trapped.
- All site machinery and materials will be appropriately stored to avoid harm to the species, notably between July and November each year when extra care is needed to avoid potential impacts on pregnant females.

Terrestrial Mammals

- 4.1.17. European Hedgehog are anticipated to be present within the site and are a Species of Principal Importance. During habitat management, any areas of dense vegetation should first be carefully hand searched to check for the species. If identified during management, should be relocated carefully by hand to a location away from the working area. If any injured either species are located they should be taken to a local vets.

5. Further Surveys & Conclusion

Further Surveys

5.1.1. No further surveys are deemed necessary to inform the planning application.

Conclusion

5.1.2. The site was found to predominantly comprise developed land; sealed surface, modified grassland and dense scrub. The majority of the site is deemed to be of ecological value to support bats, birds, reptiles, amphibians and terrestrial mammals. The recommended mitigation to be completed during the construction phase and recommendations for landscaping have been outlined to enhance the site for biodiversity.

5.1.3. Specific enhancement recommendations for the site include the following:

- Bat and bird boxes could be placed on the new buildings / retained trees. A plan to show the locations of these boxes and the specifications should be produced by a suitably qualified ecologist once the layout is finalised.
- Planting of linear features such as hedgerows and trees between garden plots where possible, to add commuting features withing the site.
- The inclusion of 'hedgehog highways' to facilitate movement across the site. This includes holes of 13 x 13cm at the bases of fence panels, leaving a sufficient gap beneath gates and/or leaving brick spaces at the bases of brick walls.

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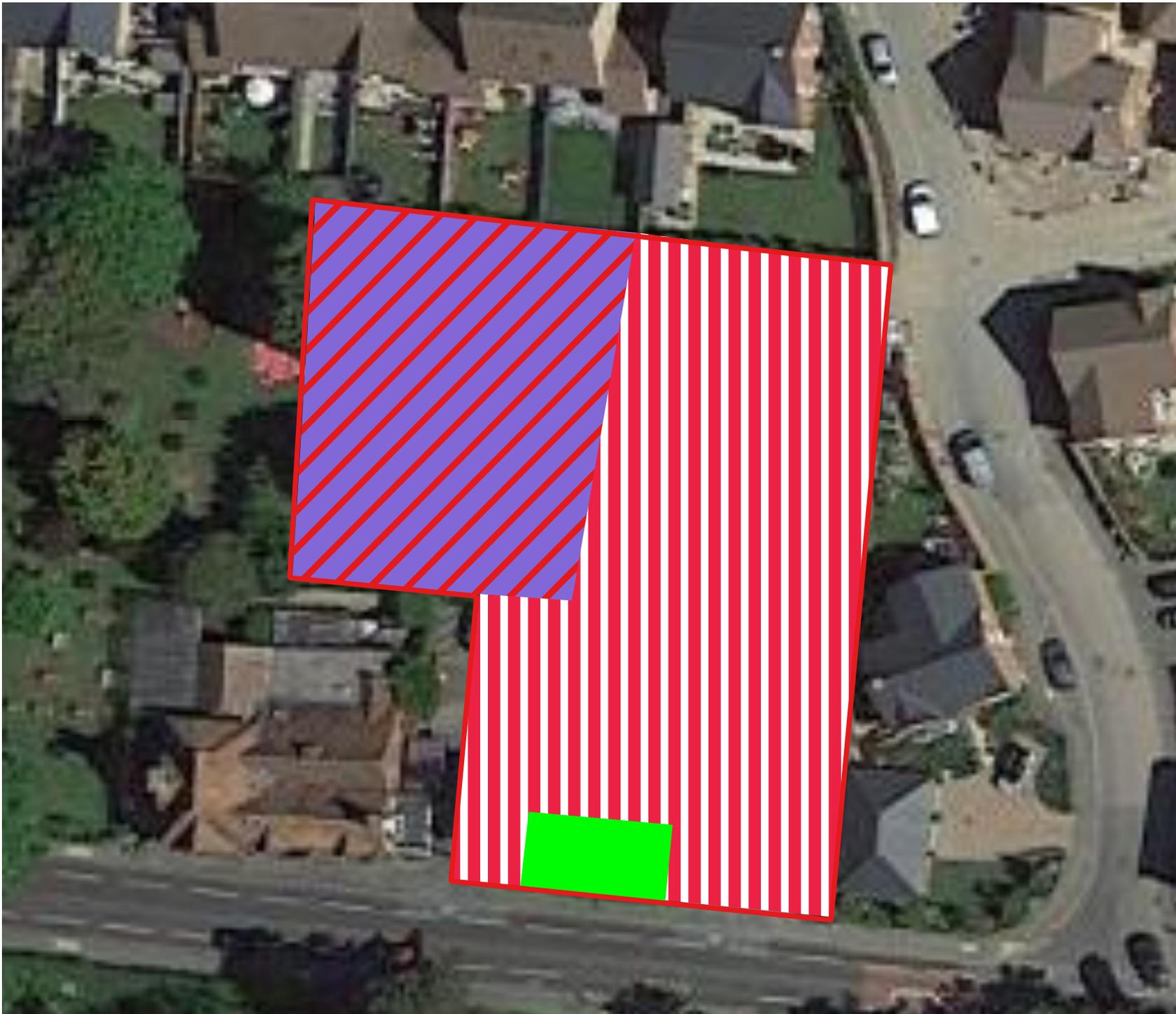


Appendix 1 – Site Photographs

Feature	Photograph
Dense mixed scrub	
Developed land; sealed surface	
Modified grassland	

Appendix 2 – Habitat Map





Drawing Title: Current Habitat Map
Date: 19/07/2023

-  Red line boundary
- Mixed scrub
 -  h3 - dense scrub
- Hardstanding
 -  u1b - developed land, sealed surface
- modified grassland
 -  g4 - modified grassland

Scale: 1:700
Drawn By: KB
Checked By: OC
Approved By: OC



Client: Stonegate Group
Site: Shelley Arms, RH12 3JU
Project Number: Rev: 1.0
Seed 2023