

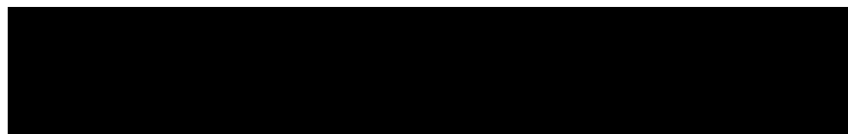
# Preliminary Ecological Appraisal Report

**Site:** Babsham Farm, Bognor Regis

**Client:** Church Commissioners for England

Version 001

Issued By:  
Gray's Ecology  
22 Church Road  
East Wittering  
Chichester  
Sussex  
PO20 8PS



**DOCUMENT HISTORY AND STATUS**

| Document Control                    |                                                                                                                                                                                                                                                                                                                                                     |                |                   |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|
| Prepared by                         | Nick Gray BSc (Hons)                                                                                                                                                                                                                                                                                                                                |                |                   |
| Checked by<br>(Technical)           | Jenny Gray                                                                                                                                                                                                                                                                                                                                          |                |                   |
| Revision Details                    |                                                                                                                                                                                                                                                                                                                                                     |                |                   |
| Version                             | Date of Issue                                                                                                                                                                                                                                                                                                                                       | Pages affected | Comments          |
| 001                                 | 30.07.19                                                                                                                                                                                                                                                                                                                                            | N/A            | Issued to client. |
| Life Span of Survey Data and Report |                                                                                                                                                                                                                                                                                                                                                     |                |                   |
| Report                              | This report remains valid for 12 months from date of issue.<br>The report, conclusions and recommendations are valid for current change of use plans only. If these plans are changed, it will be necessary to review this report in the context of those changes, to assess whether further desk study and survey work will need to be undertaken. |                |                   |
| Survey Data                         | Survey data are valid for 12 months from the date the survey was undertaken.                                                                                                                                                                                                                                                                        |                |                   |

**Disclaimer:**

Copyright ©Gray's Ecology 07/2019

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

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

The information provided in this document has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.

## Contents

|           |                                                                             |           |
|-----------|-----------------------------------------------------------------------------|-----------|
| <b>1</b>  | <b>Summary .....</b>                                                        | <b>4</b>  |
| <b>2</b>  | <b>Introduction .....</b>                                                   | <b>5</b>  |
| 2.1       | Background .....                                                            | 5         |
| 2.2       | Purpose of the Report .....                                                 | 5         |
| 2.3       | Brief and Objectives .....                                                  | 6         |
| 2.4       | Site Description .....                                                      | 6         |
| 2.5       | Proposed Development.....                                                   | 6         |
| <b>3</b>  | <b>Relevant Legislation and Planning Policy .....</b>                       | <b>6</b>  |
| 3.1       | Designated Sites .....                                                      | 7         |
| 3.2       | Habitats of Principal Importance and Ancient Woodland.....                  | 8         |
| 3.3       | Protected Species and Species of Conservation Concern .....                 | 8         |
| 3.4       | Non-native Invasive Species .....                                           | 11        |
| 3.5       | Ecological Enhancement.....                                                 | 11        |
| <b>4</b>  | <b>Methods.....</b>                                                         | <b>11</b> |
| 4.1       | Desk Study .....                                                            | 11        |
| 4.2       | Extended Phase 1 Habitat Survey .....                                       | 11        |
| 4.3       | Protected Species Assessment .....                                          | 12        |
| 4.4       | Non-native Invasive Species Assessment .....                                | 13        |
| 4.5       | Survey and Assessment Limitations .....                                     | 14        |
| <b>5</b>  | <b>Baseline Ecological Conditions.....</b>                                  | <b>14</b> |
| 5.1       | Results of Desk Study.....                                                  | 14        |
| 5.2       | Results of Extended Phase 1 Habitat Survey – Habitats.....                  | 15        |
| 5.3       | Results of Extended Phase 1 Habitat Survey – Fauna.....                     | 16        |
| <b>6</b>  | <b>Ecological Constraints and Opportunities Assessment.....</b>             | <b>20</b> |
| <b>7</b>  | <b>Recommendations .....</b>                                                | <b>23</b> |
| 7.1       | Protected Species and Species of Conservation Concern .....                 | 23        |
| 7.2       | Ecological Enhancement and Opportunities .....                              | 24        |
| 7.3       | Summary of Ecological Constraints, Mitigation and Enhancements .....        | 24        |
| <b>8</b>  | <b>Conclusion .....</b>                                                     | <b>25</b> |
| <b>9</b>  | <b>References .....</b>                                                     | <b>26</b> |
| <b>10</b> | <b>Appendix 1 – Site Photographs .....</b>                                  | <b>28</b> |
| <b>11</b> | <b>Appendix 2 – Wildlife Legislation and National Planning Policy .....</b> | <b>33</b> |
| <b>12</b> | <b>Appendix 3 – Reducing impacts of artificial light .....</b>              | <b>37</b> |
| <b>13</b> | <b>Appendix 4 – Phase 1 Habitat Survey: List of Recorded Species .....</b>  | <b>38</b> |
| <b>14</b> | <b>Appendix 5 – Data Search Results .....</b>                               | <b>41</b> |

## 1 Summary

This is a brief summary of the findings and recommendations of the Preliminary Ecological Assessment undertaken for Land at Babsham Farm, Bognor Regis. Please read the report in its entirety for full details.

1. Gray's Ecology was commissioned by the Church Commissioners for England to undertake a Preliminary Ecological Appraisal of Land at Babsham Farm, Bognor Regis, totalling approximately 0.3 ha (hereafter referred to as the 'site').
2. Permission is sought to change the use of the site from agricultural to an industrial storage area.
3. The Preliminary Ecological Appraisal comprised a data search and extended Phase 1 habitat survey to assess the baseline ecological conditions of the site and its potential to support protected species and species of conservation concern.
4. The main findings of the data search indicated that the site is not within any areas designated for nature conservation, but it is within the Impact Risk Zone for Pagham Harbour and Bognor Reef SSSI and a Nitrate Vulnerable Zone for Eutrophic Water.
5. An extended Phase 1 survey was conducted at the site, which found the site to be dominated by hard standing building materials, building rubble and waste, which was interspersed with ephemeral/short perennial herbs and patches of dense scrub.
6. The site was found to contain habitat with low potential to support invertebrates of conservation concern, common and widespread amphibians and reptiles (within the margins of the site), nesting birds and European Hedgehog.
7. The site was found to have negligible potential for roosting, foraging and commuting bats. A sensitive lighting plan is recommended to avoid increasing disturbance to bats and other nocturnal species.
8. It is recommended that any site clearance work is undertaken between the 1<sup>st</sup> April and 30<sup>th</sup> September and the working area carefully searched by hand to ensure that any reptiles, amphibians or European hedgehogs that are present, can be safely relocated away or allowed to move away into surrounding habitats of their own accord.
9. If, at any time a nesting bird is discovered, then a 5 m cordon must be established around the nest to prevent further disturbance until the brood has fledged.
10. It is proposed that habitat enhancements, to benefit insects, reptiles, amphibians and birds, are incorporated into the design proposals through any landscaping or planting scheme, which could include native shrub and flowering species, known to encourage insect diversity, and by incorporating bird roosting opportunities into the perimeter of the site.

## 2 Introduction

### 2.1 Background

Gray's Ecology was commissioned to undertake a Preliminary Ecological Appraisal (PEA) of land at Babsham Farm, Bognor Regis, West Sussex PO21 5EL (the site) by Sloan and Brown Ltd on behalf of their client, Strutt & Parker Ltd, the appointed land agents for the Church Commissioners for England, who own the site.

The site covers an area of approximately 0.3 hectares and forms a part of the former farmyard, associated with Babsham Farm. The central grid reference for the site is SU 9171 0170 (see location map, Figure 1).

The site is located 32 m north and east of the A259 Road, near the urban settlement of North Bersted, Bognor Regis. Open arable fields are located adjacent to the north and to the east of the site.

**Figure 1.** Map with blue arrow to indicate the geographical location of the site.

Site Location (©Google Earth Pro, 2019).



### 2.2 Purpose of the Report

This PEA report presents the findings of an extended Phase 1 survey at the site, undertaken by Nick Gray on 03 July 2019, together with an assessment of the potential for protected species and/or habitats to be present within the site. Recommendations are also made concerning any potential ecological constraints to the proposed change of use and any associated activities.

## 2.3 Brief and Objectives

The purpose of the Preliminary Ecological Appraisal (PEA) was to:

- Map and identify the existing habitats within the site.
- Check for evidence of protected species and assess the potential for protected species to be present within the site.
- Check for evidence of invasive species within the site.
- Identify potential ecological impacts and constraints relating to the proposed activities within the site.
- Make recommendations for further survey work, as appropriate.
- Propose mitigation measures to avoid, mitigate and/or compensate for ecological impacts, as appropriate.
- Propose measures to enhance the ecological value of the site, as appropriate.

## 2.4 Site Description

The site comprises a series of remnant animal stock pens, built from block walling and steel tube or steel crash barrier fencing and was formerly part of the original farmyard associated with Babsham Farm. Eighty percent of the site is covered by hard standing. The site is largely derelict and is currently used as a depository for building materials and building waste.

The habitat on the site was found to be comprised mainly from ephemeral/short perennial herb, associated with the areas of hard standing, with some areas of dense scrub present in the north-west of the site.

The site now forms part of a small industrial site, surrounded by large open fields, which are subject to intensive agricultural farming practice (a Phase 1 habitat map is provided in Figure 2, Section 5. Photographs of the site are provided in Appendix 1.).

Other habitats found within the site include, block walling, building construction waste (TN 1, Figure 2), building materials (TN2, Figure 2), rubble (TN 3, Figure 2) and garden waste (TN 4, Figure 2).

## 2.5 Proposed Development

It is understood that the landowners are seeking permission for a change of use to facilitate commercial storage within the site.

## 3 Relevant Legislation and Planning Policy

This Section provides a summary of legislation and planning policy for designated sites, habitats of principal importance, ancient woodland and trees, protected species and any non-native invasive species, which are assessed to be present or potentially present on site. Further details are given in Table 1, Section 6 and in Appendix 2. Relevant legislation and planning policy pertaining to protected habitats and species should be referred to in full for further information. These can be found at the following websites:

- Wildlife and Countryside Act, 1981 (as amended). Available online at: <http://www.legislation.gov.uk/ukpga/1981/69>
- Council Directive 79/409/EEC on the Conservation of Wild Birds ("the Birds Directive"). Available at: <http://ncc.defra.gov.uk/page-1373>
- Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the "Habitats Directive"). Available online at: <http://ncc.defra.gov.uk/page-1374>

- Conservation of Habitats and Species Regulations, 2017. Available online at: <http://www.legislation.gov.uk/uksl/2017/1012/contents/made>
- Countryside Rights of Way Act, 2000. Available online at: <http://www.legislation.gov.uk/ukpga/2000/37/contents>
- Natural Environment and Rural Communities Act, 2006. Available online at: <http://www.legislation.gov.uk/ukpga/2006/16/contents>
- National Planning Policy Framework (NPPF), 2019. Available online at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/810197/NPPF\\_Feb\\_2019\\_revised.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf)
- HM Government (2005) Office of the Deputy Prime Minister (ODPM) Circular 06/05: *Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System*. Available online at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/7692/147570.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf)
- Eaton et al (2015) *Birds of Conservation Concern 4: The Population Status of Birds in the United Kingdom, Channel Islands and the Isle of Man*. British Birds 102, pp296-341. Available online at: <https://britishbirds.co.uk/wp-content/uploads/2014/07/BCC4.pdf>.
- Adoption Arun Local Plan 2011-2031 (July 2018). Available online at: <https://www.arun.gov.uk/download.cfm?doc=docm93;ijm4n12844.pdf&ver=12984>

### 3.1 Designated Sites

The site is not located within any statutory or non-statutory designated sites.

The site is located within the Impact Risk Zone for Pagham Harbour Site of Special Scientific Interest (SSSI), which lies 4.9 km to the south-west of the site and Bognor Reef SSSI, which lies 3.1 km to the south of the site. Regard must be given to Paragraph 175b of the NPPF, which states that “... *proposed development on land within or outside a Site of Special Scientific Interest, likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted.*”

Solent Maritime Special Area of Conservation (SAC), Solent And Dorset Coast Potential Special Protection Area (PSPA), Pagham Harbour Special Protection Area (SPA) and Ramsar Site are also located 4.9 km to the south and south-west of the site. Regard must be given to Paragraph 176 of the NPPF, which states that “...*The following should be given the same protection as habitats sites: a) potential Special Protection Areas and possible Special Areas of Conservation; b) listed or proposed Ramsar sites; and c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.*”

The Brooks Local Wildlife Site (LWS) is located 1.2 km to the east of the site.

Regard should also be given to Chapter 17 in the Adoption Arun Local Plan 2011-2031 (July 2018).

The site is also located within the Pagham Harbour Nitrate Vulnerable Zone (NVZ) for Eutrophic Water and is therefore, subject to the Nitrate Pollution Prevention Regulations 2015

[http://www.legislation.gov.uk/uksl/2015/668/pdis/uksl\\_20150668\\_en.pdf](http://www.legislation.gov.uk/uksl/2015/668/pdis/uksl_20150668_en.pdf). Further regard must be given to the Water Framework Directive 2000/60/EC [http://ec.europa.eu/environment/water/water-framework/index\\_en.html](http://ec.europa.eu/environment/water/water-framework/index_en.html), which is implemented through the Environment Agency, South East river basin district River basin management plan (2015)

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/500473/South\\_East\\_RBD\\_Part\\_1\\_river\\_basin\\_management\\_plan.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/500473/South_East_RBD_Part_1_river_basin_management_plan.pdf).

Arun District Council has a duty to have regard to the South East River Basin Management Plan to ensure the protection and improvement in quality of the local water environment. This also accords with the overall objective of the Water Framework Directive, which is to achieve “good ecological status” in all waterbodies (including surface, ground and coastal waters) and not allow any

deterioration from their current status. Regard should therefore be given to Chapter 18 in the Adoption Arun Local Plan 2011-2031 (July 2018).

### 3.2 Habitats of Principal Importance and Ancient Woodland

The site does not contain any Habitats of Principal Importance. Coastal and Floodplain Grazing Marsh, Open Water and Deciduous Woodland, which are Habitat of Principal Importance, were found to be present within 1 km of the site.

Habitats of Principal Importance are listed in Section 41 of the NERC Act, 2006. Section 40 of this act places a duty on Local Planning Authorities to have due regard to biodiversity.

Further regard should also be given to Chapter 17 in the Adoption Arun Local Plan 2011-2031 (July 2018).

### 3.3 Protected Species and Species of Conservation Concern

The NPPF sets out government policy on biodiversity in planning decisions under their obligation to Section 40 of the NERC Act, 2006. Under the NPPF, the presence of a protected species is a material consideration when a planning authority is considering a proposed development or change of use proposal. Further general information on legislation for protected species is given in Appendix 2.

Further regard should also be given to Chapter 17 in the Adoption Arun Local Plan 2011-2031 (July 2018).

Assessment of the site has been made with particular regard for its potential to support the following species:

#### 3.3.1 Plants

The site and/or adjacent habitats have negligible potential to support protected plants and/or plants of conservation concern, including the bluebell *Hyacinthoides non-scripta* – listed under Schedule 8 of the Wildlife and Countryside Act, 1981 (as amended), musk stork's bill *Erodium moschatum* – listed as rare in Sussex and annual beard-grass *Polypogon monspeliensis* – listed as nationally rare.

#### 3.3.2 Invertebrates

The site and/or adjacent habitats have low potential to support protected invertebrates and/or invertebrates of conservation concern, protected under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) and species, such as the wall butterfly *Lasiommata megera* and the cinnabar moth *Tyria jacobaeae*, which are both listed as Species of Principal Importance under Section 41 of the NERC Act, 2006.

#### 3.3.3 Great Crested Newt

The probability that great crested newt (*Triturus cristatus*) are present within the site is negligible. Great crested newt and the places they use for shelter or protection receive full European protection under the Conservation of Habitats and Species Regulations, 2017 (Habitats Regulations, 2017). They receive further full legal protection under the Wildlife and Countryside Act, 1981 (as amended). This protection means that great crested newts, and the places they use for shelter or protection, are a material consideration in the planning process. Regulation 41 of the Habitats Regulations, 2017, states that a person commits an offence if they:

- Deliberately capture, injure or kill a great crested newt.
- Deliberately disturb great crested newts.
- Deliberately take or destroy eggs of a great crested newt.

- Damage or destroy a great crested newt breeding site or resting place.

#### 3.3.4 Common Toad

There is low potential for common toad *Bufo bufo* to be present on site. Common toad is a Species of Principal Importance listed under Section 41 of the NERC Act, 2006.

#### 3.3.5 Reptiles

There is low potential for widespread native reptiles to be present on the site. Widespread native reptile species are protected under Schedule 5 of the Wildlife and Countryside Act (1981), as amended. This makes it an offence to kill or injure native reptiles. Native reptile species are also afforded protection through national planning policy and are Species of Principal Importance, listed under Section 41 of the NERC Act, 2006.

#### 3.3.6 Breeding Birds

Breeding birds are protected through UK law under Schedule 1 of the Wildlife and Countryside Act, 1981 (as amended) and/or listed as Species of Principal Importance under Section 41 of the NERC Act, 2006. These species may also be listed as Birds of Conservation Concern (BoCC) (Eaton et al., 2015).

Under the Wildlife and Countryside Act, 1981 (as amended), it is illegal to take, damage or destroy the nests of wild birds whilst being built or in use. Birds listed as BoCC (Eaton et al., 2015) do not receive any other protection above and beyond that received by all wild breeding birds.

#### 3.3.7 Bats

There is negligible potential for bats to be present on the site. All British bat species and their roosts are fully protected under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) and the Habitats Regulations, 2017. This means it is a criminal offence to:

- Deliberately capture, injure or kill a bat.
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats.
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time).
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat.
- Intentionally or recklessly obstruct access to a bat roost.

Some species of bats are also Species of Principal Importance, listed under Section 41 of the NERC Act 2006.

#### 3.3.8 Harvest mouse

There is negligible potential for harvest mouse *Micromys minutus* within the site. The harvest mouse is a Species of Principal Importance, listed under Section 41 of the NERC Act, 2006 and a UK Biodiversity Action Plan Priority Species.

#### 3.3.9 Hazel Dormouse

There is negligible potential for Hazel dormouse *Muscardinus avellanarius* within the site. The hazel dormouse is fully protected under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) and the Habitats Regulations, 2017. This means it is a criminal offence to:

- Deliberately capture, injure or kill hazel dormice.
- Damage or destroy a dormouse resting place or breeding site.
- Deliberately or recklessly disturb a hazel dormouse while it's in a structure or place of shelter or protection.
- Block access to structures or places of shelter or protection.
- Possess, sell, control or transport live or dead hazel dormice, or parts of hazel dormice

Activities which can result in harm to hazel dormice include handling, disturbance, e.g. noise and light, woodland and hedgerow management, smoke from bonfires, habitat removal, clearing woodland and removing hedges and habitat fragmentation and isolation.

### 3.3.10 European Water Vole

There is negligible potential for European water vole *Arvicola amphibius* to be present within the site. the water vole is fully protected under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended). Water voles are protected against intentional killing, capture or injury and intentional or reckless disturbance, obstruction, damage or destruction or their burrows. They are also listed as Species of Principal Importance under Section 41 of the NERC Act 2006.

### 3.3.11 European Hedgehog

There is low potential for European hedgehog *Erinaceus europaeus* to be present within the site. The European hedgehog is a Species of Principal Importance, as listed under Section 41 of the NERC Act 2006.

### 3.3.12 Brown hare

There is negligible potential for Brown hare *Lepus europaeus* to be present within the site. The brown hare is a Species of Principal Importance, as listed under Section 41 of the NERC Act 2006.

### 3.3.13 Badger

There is negligible potential for European Badger *Meles meles* to be present on site. European badgers and their setts, when active, are fully protected under the Protection of Badgers Act, 1992. This makes it an offence to:

- Intentionally capture, kill or injure a badger.
- Damage, destroy or block access to their setts.
- Disturb badgers' in setts.
- Treat a badger cruelly.
- Deliberately send or intentionally allow a dog into a sett.
- Bait or dig for badgers.

You're breaking the law and could get an unlimited fine if you:

- Have or sell a badger or offer a live badger for sale.
- Have or possess a dead badger or parts of a badger (if you got it illegally).
- Mark or attach a marking device to a badger.

Activities that can affect badgers include:

- Destroying or damaging their setts.
- Noise, additional lighting or vibration.
- Pile driving.
- Quarry blasting.
- Lighting fires.
- Using chemicals.
- Excavation.
- Ploughing and harvesting crops.
- Tree felling and timber extraction.
- Construction or repair of flood defences or watercourses.

### 3.4 Non-native Invasive Species

Schedule 9, Section 2 of the Wildlife and Countryside Act, 1981 (as amended) lists certain non-native invasive species, which are already established in the wild, but which continue to pose a conservation threat to native biodiversity and habitats. If these species are found within the site, it is a requirement that their management and further releases should be regulated. Although the removal of such species is not a mandatory obligation, it is unlawful to allow species listed under Schedule 9 to spread beyond the site without consent from other landowners or to knowingly permit the unchecked spread of these species into the wild. Allowing these species to spread within protected habitats may also be viewed as damaging to these habitats and could therefore be considered unlawful.

Further regard should also be given to Chapter 17 in the Adoption Arun Local Plan 2011-2031 (July 2018).

### 3.5 Ecological Enhancement

Both national and local policy support ecological enhancement in the design of the proposed change of use. The NPPF and accompanying ODPM Circular 06/05 state that Local Planning Authorities should aim to conserve and enhance biodiversity.

Further regard should also be given to Chapter 17 in the Adoption Arun Local Plan 2011-2031 (July 2018).

## 4 Methods

This report has been produced with reference to current guidelines for Preliminary Ecological Appraisals (CIEEM, 2017) and in accordance with BS42020:2013: Biodiversity – Code of Practice for Planning and Development. The assessment comprised a data search and site survey, followed by a review of the data to provide an evaluation of the conservation value of the site.

### 4.1 Desk Study

Sussex Biodiversity Record Centre (SxBRC) were contacted to provide a data search report for the site, which was completed on 3 July (reference SxBRC/19/299). The search included information on existing protected habitats and species and species of conservation concern within 1 km of the site boundary (this was adapted to include 2 km for bats).

A search of on-line mapping resources was undertaken to identify the location of any features of potential ecological interest, including ponds within 500m (relevant to great crested newts and wetland birds), watercourses (relevant to riparian mammals, wetland birds and crayfish) and the connectivity of the site to woodland, scrub, and hedgerow networks (relevant to bats, terrestrial mammals, birds, reptiles and amphibians and invertebrates present within the wider landscape around the site).

The following published materials were also consulted:

- The Multi-Agency Geographical Information for the Countryside ([www.magic.gov.uk](http://www.magic.gov.uk)) (accessed 23 July 2019).

### 4.2 Extended Phase 1 Habitat Survey

An extended Phase 1 habitat survey of the site was undertaken by ecologist Nick Gray BSc (Hons) on 3 July 2019. The weather conditions during the survey were dry and clear, temperature 19°C, wind force 1 and 80% cloud cover.

The survey was carried out in accordance with guidelines provided in the JNCC (2010) *Handbook for Phase 1 habitat survey* and CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal*. The survey technique was extended to provide more detail on the potential for the site to support protected species. Target notes (TN) were used to identify potential for protected or notable species and habitats, and to aid more detailed site descriptions. Habitat definitions were used in accordance with JNCC (2010). Plant species nomenclature were noted following Stace (2019).

All habitat types contained within the site, together with the dominant botanical species and indicators of important habitats, such as Semi-natural Deciduous Woodland were listed and described.

Habitats and features at the site were also evaluated during the extended Phase 1 survey for their potential to support legally protected species and observations of any important plant communities, bird assemblages or other potentially valuable ecological features were recorded.

### 4.3 Protected Species Assessment

Protected species assessed for, but not limited to, were:

- Plants of conservation concern.
- Invertebrates of conservation concern.
- Great crested newt.
- Common toad.
- Reptiles.
- Breeding birds.
- Bats.
- Harvest mouse.
- Hazel dormouse.
- European water vole.
- European hedgehog.
- Badger.

Where potentially suitable habitat was found, details of the preliminary survey methods for each legally protected species are given below.

#### 4.3.1 Invertebrates

The site was broadly assessed for its potential to support important invertebrate assemblages, with particular attention paid to features such as standing deadwood, wet flushes, bare earth banks and botanically rich areas.

#### 4.3.2 Great crested newt

A desk study was undertaken to identify areas of standing water within 500m of the site. Habitats present within the site were broadly assessed for their potential to support great crested newts, in the context of their accessibility to nearby areas of standing water likely to support great crested newt. Further survey was recommended where appropriate, in accordance with best practice guidance (English Nature 2001 and Oldham et al, 2000).

#### 4.3.3 Common toad

The site was broadly assessed for its potential to support common toad, with particular attention paid to features such as fallen deadwood, log and rubble piles, marginal habitat, shady areas of disturbed soil and beneath shrubs within the site area.

#### 4.3.4 Reptiles

Habitats on the site were broadly assessed for their potential to support reptiles. Particular attention was paid to those features that provide suitable basking areas (e.g. south-facing slopes), hibernation sites (e.g. banks, walls, piles of rotting vegetation) and opportunities for foraging (rough grassland and scrub). Further surveys were recommended where appropriate.

#### 4.3.5 Birds

The habitats contained within the site and adjacent areas were broadly assessed for their potential to support important bird species/assemblages, and breeding birds. Any birds identified during the site visit were recorded. Special attention was paid to notable species such as red-listed Birds of Conservation Concern (Eaton *et al.* 2015) and those species afforded special protection on Schedule 1 of the Wildlife and Countryside Act, 1981 (as amended). Further surveys were recommended where appropriate.

#### 4.3.6 Bats

Bats are known to use a wide range of features including loft spaces, cavity walls, loose tiles, mortice joints and cracks/gaps in a variety of built structures. They can also be found in trees with holes, splits, cracks, cavities, ivy, and loose bark. Walls and other structures were broadly assessed for their potential to support roosting bats as either negligible, low, moderate, or high, in accordance with the Bat Conservation Trust Survey Guidelines (Collins, J.(ed.) (2016). Any evidence found confirming the presence of bats was recorded, including photos and samples (e.g. droppings). Further surveys were recommended where appropriate.

#### 4.3.7 Harvest mouse

Long grass and scrub habitats on the site were broadly examined for the presence of harvest mouse nests, which are woven into tight balls of grass or straw and are indicative of their presence. Further surveys were recommended where appropriate.

#### 4.3.8 Hazel dormouse

The site was broadly assessed for its potential to support hazel dormouse. This included use of on-line mapping resources to assess the surrounding area for connectivity to large blocks of woodland, scrub and extensive hedgerow networks. Further surveys were recommended where appropriate, in accordance with best practice guidance (Bright *et al* 2006).

#### 4.3.9 European hedgehog

The site was broadly assessed for its potential to support European hedgehog. This included use of on-line mapping resources to assess the surrounding area for connectivity to large blocks of scrub and extensive hedgerow networks.

#### 4.3.10 Badger

Habitats within the site and surrounding areas were broadly assessed for their potential to support badgers. Any signs of badger activity, for example setts, footprints, latrines, well-worn paths, foraging marks, were recorded. Further surveys were recommended where appropriate.

### 4.4 Non-native Invasive Species Assessment

A search was undertaken within the site for evidence of non-native invasive species listed under Section 9 of the Wildlife and Countryside Act, 1981 (as amended) and with reference to information provided by the GB Non-native Species Secretariat, available at:

<http://www.nonnativespecies.org/home/index.cfm>. Any evidence of non-native invasive species was recorded using photographs. Sampling (e.g. faecal matter, hair etc.) for off-site analysis and identification was conducted, where necessary and where it was considered appropriate to do so.

## 4.5 Survey and Assessment Limitations

The data search should not be taken as a definitive list of the protected species and species of conservation concern that occur or have the potential to occur within the search area. Records of badgers and otters are not provided by SBRC due to the sensitive nature of this information.

The site was visited over a period of one day. As such, seasonal variations cannot be observed and only a selection of all species that potentially occur within the site have been noted. Therefore, the survey provides a general assessment of potential nature conservation value.

The extended Phase 1 habitat survey was undertaken at the optimal time of year. There were no limitations to the survey in terms of the following:

- The site could be fully accessed.
- Weather conditions (dry and sunny).
- Personal competence (qualifications, training, skills and experience).
- Time spent surveying.

## 5 Baseline Ecological Conditions

### 5.1 Results of Desk Study

A full summary of species listed within the data search, which have potential to be found within the site are listed in Tables 3 - 6, Appendix 5.

#### 5.1.1 Designated sites of importance for nature conservation

- The site is not located within any designated sites.
- There are no statutory designated sites within the 1 km of the site.
- The Brooks LWS is located 1.2 km east of the site.
- The site is within the impact risk zone for Pagham Harbour SSSI and Bognor Reef SSSI.
- The site is within Pagham Harbour Nitrate Vulnerable Zone for Eutrophic Water.

#### 5.1.2 Habitats of Principal Importance

The site does not contain any Habitats of Principal Importance.

The following Habitats of Principal Importance are located within 1 km of the site:

- Coastal and Floodplain Grazing Marsh – located to the north, east and south of the site (the nearest of these is 452 m to the south).
- Open Water (the nearest area of open water is located 144 m north-east of the site)
- Deciduous Woodland – there are two areas, one to the east and one to the west of the site – the nearest area of Deciduous Woodland is 635 m to the south-east of the site.

#### 5.1.3 Protected Species and Species of Conservation Concern

Ninety-four protected and/or designated species were shown within the results of the data search to have been recorded within the search area. Protected and/or designated species, which have the potential to occur within the habitats present with the site and have been recorded within the 1 km search area are shown in Table 4, Appendix 5.

#### 5.1.4 Non-native Invasive Species

Fifteen invasive non-native species were shown within the data search results to have been recorded within 1km of the site.

#### 5.1.5 Granted European Protected Species Licences

One European Protected Species Licence (EPSL) (ref. 2014-4435-EPS-MIT) was granted in 2014 for the destruction of a resting place for common pipistrelle bats *Pipistrellus pipistrellus*, 1.3 km north-east of the site.

### 5.2 Results of Extended Phase 1 Habitat Survey – Habitats

The results of the Phase 1 habitat survey undertaken on 3 July 2019 are presented in map form on Figure 2, Section 5 and in photographs 1 - 13, Appendix 1. The following habitats were recorded on the site:

- Dense Scrub (Photo 1, Appendix 1)
- Scattered broad-leaved trees (Photo 2, Appendix 1)
- Ephemeral/short perennial herb (Photo 3, Appendix 1)
- Fence (Photo 4, Appendix 1)
- Wall (Photo 5, Appendix 1)
- Bare ground (Photo 6, Appendix 1)
- Hard standing (Photo 7, Appendix 1)

Other features (Target Notes):

- Rubble Pile (TN 1, Figure 2 and Photo 8, Appendix 1)
- Garden waste (TN 2, Figure 2 and Photo 9, Appendix 1)
- Building waste (TN 3, Figure 2 and Photo 10, Appendix 1)
- Building materials (TN 4, Figure 2 and Photo 11, Appendix 1)
- Lorry and trailer (TN 5, Figure 2 and Photo 12, Appendix 1)
- Shipping container (TN 6, Figure 2 and Photo 13, Appendix 1)

A complete list of the species recorded during the Phase 1 survey is provided in Appendix 4.

#### 5.2.1 Dense Scrub

Two discrete areas of dense scrub were found to be present in the western area of the site, comprising entirely of bramble *Rubus fruticosus*.

#### 5.2.2 Scattered Broad-leaved Trees

A single 3 m high *prunus sp.* was present, adjacent to dense scrub in the west of the site.

#### 5.2.3 Ephemeral/short perennial herb

The majority of floral species found within the site were associated with the hard-standing areas and were considered typical of common and widespread species found within the locality. The dominant species present were black nightshade *Solanum nigrum*, Canadian fleabane *Erigeron canadensis*, common knot-grass *Polygonum aviculare*, dwarf mallow *Malva neglecta*, field bindweed *Convolvulus arvensis*, herb-Robert *Geranium robertianum*, hoary willowherb *Epilobium parviflorum*, field horsetail *Equisetum arvense*, mugwort *Artemisia vulgaris*, petty spurge *Euphorbia peplus*, common poppy *Papaver rhoeas*, purple toadflax *Linaria purpurea*, ragwort *Jacobaea vulgaris*, scentless mayweed *Tripleurospermum inodorum*, teasel *Dipsacus fullonum*, wall barley *Hordeum murinum* and yarrow

*Achillea millefolium*. The extent of this habitat is shown in Figure 2 and the full list of the species recorded during the extended Phase 1 survey can be seen in Appendix 4.

#### 5.2.4 Fences

The fences found within the site comprised 2 m high steel security fence on the northern boundary, 1.8 m wooden close-board fencing on the south-western boundary, and a combination of round steel tube fencing and steel crash barrier, which had been used to form a part of the defunct cattle pens within the site.

#### 5.2.5 Wall

Where they formed part of the buildings adjacent to the southern boundary of the site, the walls were constructed from clay brick. Elsewhere, they were constructed from concrete blocks and comprised the western boundary wall, building walls making up the northern boundary and the lower portion of some of the cattle pens.

#### 5.2.6 Bare Ground

An area of bare ground was found in the south-west of the site (see Figure 2), occupying approximately four percent of the total site area. Species found to be present in this habitat included annual meadow-grass *Poa annua*, creeping thistle *Cirsium arvense*, dandelion *Taraxacum officinale*, greater celandine *Chelidonium majus*, herb-Robert *Geranium robertianum* and shepherd's purse *Capsella bursa-pastoris* (the full list of the species recorded during the extended Phase 1 survey can be seen in Appendix 4).

#### 5.2.7 Hard Standing

Approximately eighty percent of the site is covered by hard standing and is used to store building and waste materials. This area is populated by ephemeral/short perennial herb (see section 5.2.3). A lorry and trailer (TN 5, Figure 2 and Photo 12, Appendix 1) and three shipping containers (TN 6, Figure 2 and Photo 13, Appendix 1) were present within this area.

### 5.3 Results of Extended Phase 1 Habitat Survey – Fauna

#### 5.3.1 Invertebrates

Cinnabar, common green grasshopper *Omocestus viridulus*, common green shield bug *Palomena prasina*, common red soldier beetle *Rhagonycha fulva* and European honey bee *Apis mellifera* were recorded at the site during the extended Phase 1 survey. Cinnabar is listed as a Species of Principal Importance under Section 41 of the NERC Act, 2006.

#### 5.3.2 Great Crested Newt

No great crested newts were recorded within the site during the extended Phase 1 survey. No records for this species were shown to be present within 1km of the site. No suitable terrestrial habitat for great crested newt was found to be present during the extended Phase 1 survey, the encirclement of the site by high walls, high close boarded fencing and the extensive area of hard standing are considered to present negligible potential for this species to be present within the site. Great crested newts and the places they use for shelter or protection are fully protected under European law through the Habitats Regulations, 2017. They receive further full legal protection under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended).

#### 5.3.3 Common Toad and Other Amphibians

Common toad was not recorded within the site or during the extended Phase 1 survey. Very limited habitat suitable for common toad, was present within the site. Common frog *Rana temporaria* was recorded within 1 km of the site. However, habitat within the site is not considered suitable to support common frog. Common toad is listed as a Species of Principal Importance under Section 41 of the

NERC Act, 2006. Both species are also afforded some protection under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended).

#### 5.3.4 Reptiles

No reptiles were recorded within the site during the extended Phase 1 survey or within the 1 km data search. The site had low potential to support common lizard *Zootoca vivipara*, which is considered to be a widespread native reptile species. Widespread native reptile species are protected under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) and are listed as Species of Principal Importance under Section 41 of the NERC Act, 2006.

#### 5.3.5 Birds

The following birds were recorded within the site during the extended Phase 1 survey:

Greenfinch *Chloris chloris* and house sparrow *Passer domesticus*.

The site has low potential to support some additional protected or notable bird species, which have all been recorded within 1 km of the site. These are listed with their designations in Table 4, Appendix 5 below.

#### 5.3.6 Bats

No bats or evidence of bats was found during the extended Phase 1 survey. There are no buildings or mature trees on the site that offer potential roosting sites and habitats of high suitability for roosting bats. The site was found to have negligible potential to support bats. Bats listed within the 2 km data search, which are considered likely to be present within areas adjacent to the site are listed with their designations in Table 4, Appendix 5 below.

All 18 native species of have been recorded in West Sussex and may potentially be present within the habitat of the site. All British bat species and their roosts are fully protected under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) and the Habitats Regulations, 2017.

#### 5.3.7 Harvest mouse

The data search revealed no records of harvest mouse within 1 km of the site. No evidence of harvest mouse was observed within the site during the extended Phase 1 survey. There was negligible potential to support harvest mouse within the site. The presence of high boundary walls and fences surrounding the site and isolation from suitable nesting and foraging habitat, such as areas of long grass or field margins, where they often occur in close proximity to cereal grain crops.

#### 5.3.8 Hazel Dormouse

The site contained no habitat of potential value to the hazel dormouse. No evidence of hazel dormouse was observed within the site during the extended Phase 1 survey. No hazel dormice were shown in the data search to have been recorded within 1 km of the site. The site was found to have negligible potential to support hazel dormouse.

#### 5.3.9 European water vole

No evidence of European water vole was found during the extended Phase 1 survey. The data search revealed four records for European water vole within 1 km of the site, although it is known that this species is present within the wider landscape and is under recorded. Open water is present near to the site, which connects to a ditch 53 m east of the site. Although both of which provide favourable habitat, including sloping vegetated banks, and other riparian habitats normally required to support this species, The site, itself had negligible potential to support European water vole.

The European water vole is fully protected under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) and listed as a Species of Principal Importance under Section 41 of the NERC Act 2006.

---

#### **5.3.10 European Hedgehog**

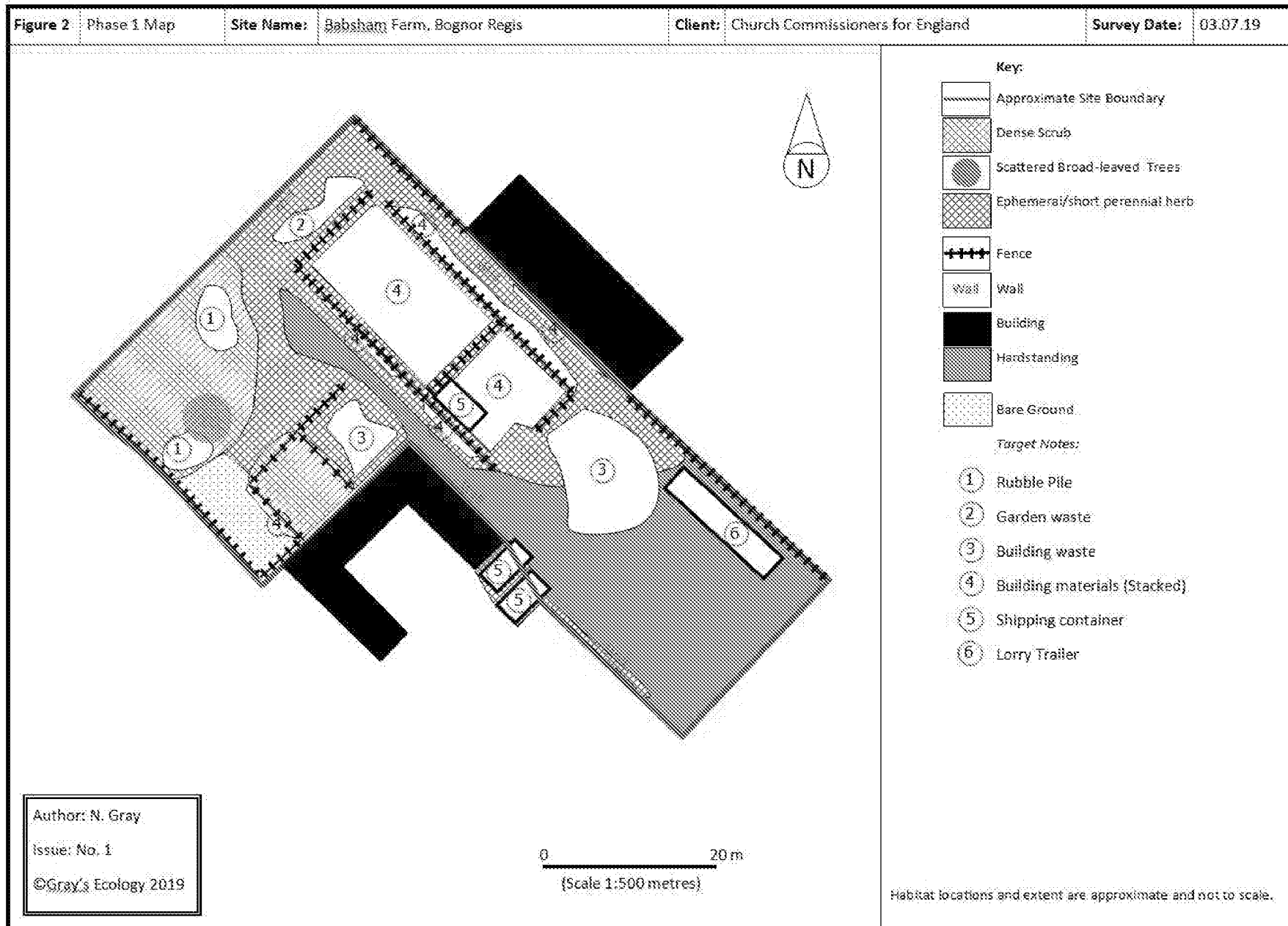
The site has low potential to support European hedgehog. No evidence of European hedgehog was observed within the site during the extended Phase 1 survey. The data search indicated 6 records for European hedgehog within 1 km of the site. European hedgehog is listed as a Species of Principal Importance under Section 41 of the NERC Act 2006.

#### **5.3.11 Brown hare**

No evidence of brown hare was found during the extended Phase 1 survey. The surrounding habitat had low potential to support brown hare. The site had negligible potential to support brown hare. No records for the presence of brown hare within 1 km of the site were indicated in the data search.

#### **5.3.12 Badger**

No sign of badgers or badger activity was noted within or near to the site during the extended Phase 1 survey. Habitats of value for this species exist within the surrounding landscape. However, it is likely that if any setts were situated within 30m of the site boundary, then some evidence of badger activity would have been observed. The site had negligible potential to support badger.



## 6 Ecological Constraints and Opportunities Assessment

Table 1 sets out known and potential ecological constraints to the proposed activities, derived from the data search and the extended Phase 1 habitat survey, including designated sites, Ancient Woodland, Habitats of Principal Importance and Protected Species/Species of Conservation Concern. Where a potential ecological constraint has been identified, further survey work and/or appropriate mitigation is likely to be required to address the issue.

**Table 1. Ecological Constraints and Opportunities Assessment**

| Valued Ecological Receptor                    |  | Potential Ecological Impact | Assessment and Justification                                                                                                                                                                                                                                                |
|-----------------------------------------------|--|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site of Special Scientific Interest (SSSI)    |  | Unlikely                    | The site is located within the Risk Zone for Pagham Harbour SSSI, which lies 4.9 km to the south-west of the site and Bognor Reef SSSI, which lies 3.1 km to the south of the site. It is considered that the proposed change of use is unlikely to cause harm to the SSSI. |
| Special Area of Conservation (SAC)            |  | Unlikely                    | The site is located within 90 m of the Solent Maritime SAC. Regard must be given to Paragraph 176 of the NPPF. However, it is considered that the proposed change of use is unlikely to cause harm to the Solent Maritime SAC.                                              |
| Special Protection Area (SPA) and Ramsar Site |  | Unlikely                    | Solent And Dorset Coast PSPA, Pagham Harbour SPA and Ramsar Site are also located 4.9 km to the south and south-west of the site. However, it is considered that the proposed change of use is unlikely to cause harm to these areas.                                       |
| Local Wildlife Site (LWS)                     |  | No                          | The Brooks LWS is located 1.2 km to the east of the site. The proposed development will not have a negative impact upon this site. Therefore, this site is not considered further in this report.                                                                           |

| Valued Ecological Receptor            |                              | Potential Ecological Impact | Assessment and Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------|------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nitrate Vulnerable Zone (NVZ)         |                              | Yes                         | The site is also located within the Pagham Harbour Nitrate Vulnerable Zone (NVZ) for Eutrophic Water and is therefore subject to the Nitrate Pollution Prevention Regulations 2015, available at: <a href="http://www.legislation.gov.uk/uksl/2015/668/pdfs/uksl_20150668_en.pdf">http://www.legislation.gov.uk/uksl/2015/668/pdfs/uksl_20150668_en.pdf</a> . Further regard must be given to the Water Framework Directive 2000/60/EC <a href="http://ec.europa.eu/environment/water/water-framework/index_en.html">http://ec.europa.eu/environment/water/water-framework/index_en.html</a> , which is implemented through the Environment Agency, South East river basin district River basin management plan (2015) <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/500473/South_East_RBD_Part_1_river_basin_management_plan.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/500473/South_East_RBD_Part_1_river_basin_management_plan.pdf</a> . <b>Further information and advice on Nitrate Vulnerable Zones should be sought from the Environment Agency to ensure that activities within the site remain compliant with the above.</b> |
| Habitats of principal importance      | None present within the site | No                          | Coastal and Floodplain Grazing Marsh, Open Water and Deciduous Woodland, which are Habitat of Principal Importance, were found to be present within 1 km of the site. These habitats should not be negatively affected by the proposed change of use within the site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Plants of Conservation Concern        |                              | Negligible                  | The site has low potential to support native bluebell, musk stork's bill and annual beard-grass. However, these species are unlikely to colonise this site easily and in any significant numbers, due to the extensive areas of concrete and hard standing present. Therefore, plants of conservation concern are not considered further in this report.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Invertebrates of conservation concern |                              | Low                         | The wall butterfly was shown in the data search to have been recorded within 1 km of the site and has low potential to occur within the site. Cinnabar was found within the site during the extended phase 1 survey. Small heath and cinnabar are both listed as Species of Principal Importance under Section 41 of the NERC Act, 2006. Habitats within the site have low potential to support invertebrates of conservation concern. <b>Recommendations for mitigation are made in Section 7.1.1.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Common toads                          |                              | Low                         | Habitat suitable for common toad, was present within some areas of the site. <b>Recommendations for mitigation for common toad are detailed in Section 7.1.1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Valued Ecological Receptor                                     |  | Potential Ecological Impact | Assessment and Justification                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------|--|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reptiles (such as slow worms, common lizards, and grass snake) |  | Low                         | Habitat for reptiles within the site, including the Rubble Pile (TN 1, Figure 2), Garden Waste (TN 2, Figure 2), Building Waste (TN 3, Figure 2) and Building Materials (TN 4, Figure 2) have low potential to support common lizard. However, the high potential for domestic cat, rats and other predatory species within the site makes this less likely. <b>Recommendations for mitigation for common and widespread reptiles are detailed in Section 7.1.1</b> |
| Breeding birds                                                 |  | Low                         | The site has low potential to support breeding birds. <b>Recommendations for mitigation for breeding birds are made in Section 7.1.2.</b>                                                                                                                                                                                                                                                                                                                           |
| Birds of conservation concern                                  |  | Low                         | The site has potential breeding, foraging and shelter habitat for birds of conservation concern. <b>Recommendations to enhance the site for birds of conservation concern are provided in Section 7.1.2.</b>                                                                                                                                                                                                                                                        |
| Bats                                                           |  | Negligible                  | No bats or evidence of bats was found during the extended Phase 1 survey. The site has no structures or trees capable of supporting bats.                                                                                                                                                                                                                                                                                                                           |
| European hedgehog                                              |  | Low                         | The site comprises some dense scrub and Ephemeral/short perennial herb, along with refuge opportunities for European hedgehog. <b>Mitigation and enhancements to support European hedgehog are detailed in Section 7.1.4</b>                                                                                                                                                                                                                                        |
| Non-native invasive species                                    |  | No                          | No non-native invasive plant species, as listed under Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended) were recorded on site during the survey. Therefore, non-native invasive species are not discussed further in this report.                                                                                                                                                                                                                   |

## 7 Recommendations

### 7.1 Protected Species and Species of Conservation Concern

#### 7.1.1 Invertebrates, Reptiles and Amphibians

It is recommended that an area of rubble and earth is retained within the west of the site to provide habitat for invertebrates. This area should be cultivated to secure a permanent reduction of the dense scrub currently present. A diverse mixture of native herbs, grasses and shrubs should be encouraged to provide habitat for native invertebrates, reptiles and amphibian species.

Piles of rubble, garden waste, building waste and building materials all have low potential to support common and widespread reptiles and amphibians within the site. Where these habitats need to be removed, they should be dismantled by hand between the 1<sup>st</sup> April and 30<sup>th</sup> of September only, as animals are generally active during this period (to avoid disturbing or injuring hibernating animals). This will allow any animals present at the time to move away from the area safely.

Widespread native reptile species are protected under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) and are listed as Species of Principal Importance under Section 41 of the NERC Act, 2006.

Providing the recommendations given above are followed, the proposed activities should not have a negative impact upon invertebrates, reptiles and amphibians.

#### 7.1.2 Birds

Habitat suitable for nesting birds is present throughout the site. The site has the potential to support breeding birds, including notable birds and birds of conservation concern.

If at any time a nesting bird is discovered, then a 5 m cordon must be established around the nest to prevent further disturbance, until the brood has fledged.

All nesting birds, their nests and eggs are afforded protection by Schedule 1 of the Wildlife and Countryside Act, 1981 (as amended).

Providing the guidance given above is followed and any subsequent recommendations adopted, breeding birds should not be negatively impacted upon by the proposed activities.

#### 7.1.3 Bats

No bats or evidence of bats was found during the extended Phase 1 survey. There is negligible potential for bats to roost within the site. However, bats are known to be present within the area and at times are likely to forage and commute throughout the site. All British bat species and their roosts are fully protected under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) and the Habitats Regulations, 2017.

It is important that the potential for disturbance from artificial lighting is considered to avoid causing disruption and disturbance to nocturnal fauna and roosting birds. The proposed development should include an 'ecologically sensitive lighting scheme' in accordance with guidance produced by the Bat Conservation Trust and Institute of Lighting (2018), available online at:

<https://www.theibp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/> and in Appendix 3.

If any new building are constructed on the site, care should be taken to avoid the use of breathable roofing membranes such as 'Tyvec,' along with other modern types of bitumen felt that contain polypropylene filaments (for example type 5U), which can cause serious harm to bats through entanglement and by creating unfavourable climatic conditions within a roosting area. All roof spaces

may potentially become available to bats and therefore, should be lined with 1F traditional hessian-backed bitumen felt, which complies with BS EN 13707:2013 and BS 5250:2011 (as amended). The use of certain wood preservative and pesticide treatments can also be harmful to bats.

Providing the recommendations given above are adopted, bats should not be adversely impacted upon by the proposed activities.

#### **7.1.4 European Hedgehog**

Areas of dense scrub, herb and garden waste present within the site have potential to support European hedgehog. European hedgehogs were recorded in the data search and have a high potential to be present within the site.

It is recommended that immediately prior to any site clearance, the working area is carefully searched to ensure that any European hedgehogs, if present, can be safely relocated away or allowed to move away into surrounding habitats of their own accord. Care should be taken to cover any temporary ground holes when left unattended, to ensure that European hedgehogs and other ground dwelling animals do not become accidentally trapped.

Providing the recommendations given Above are followed, European hedgehog should not be negatively impacted upon by the proposed activities.

#### **7.1.5 Further Survey**

No further surveys for protected species are required.

### **7.2 Ecological Enhancement and Opportunities**

The proposed development represents an opportunity for habitat enhancement to benefit native plants, invertebrates, birds, reptiles, amphibians and European hedgehog, as described above. Any additional landscaping or planting scheme could include native shrub and flowering species, known to encourage invertebrate diversity. The developer is also encouraged to consider creating a hedgehog doorway in the western boundary wall, to allow hedgehogs a second and safer route into and out of the site.

A minimum of five bird boxes, such as the 1B Schwegler Nest Box, the 1SP Schwegler Sparrow Terrace and the 2H Schwegler Robin Box (available from <https://www.nhbs.com>) should be installed at suitable locations around the perimeter of the site.

Such enhancement measures are in line with the recommendations of the NPPF (2019) and would therefore be considered favourably when determining the planning application.

### **7.3 Summary of Ecological Constraints, Mitigation and Enhancements**

- The site was assessed to be of low ecological value and is not within any areas designated for their ecological importance.
- Information and advice on Nitrate Vulnerable Zones should be sought from the Environment Agency to ensure that activities within the site remain compliant with the Water Framework Directive 2000/60/EC.
- It is recommended that an area of rubble and earth is retained and enhanced within the west of the site to provide habitat for invertebrates, reptiles, amphibians and hedgehogs.
- Any site clearance must be completed by hand between the 1st April and 30th of September only to avoid the potential for disturbing or injuring hibernating animals.

- The proposed development should include an 'ecologically sensitive lighting scheme', to ensure that artificial lighting does not cause disruption and disturbance to nocturnal fauna and roosting birds.
- If any new buildings are placed within the site, care should be taken to avoid the use of breathable roofing membranes, such as 'Tyvec,' along with other modern types of bitumen felt that contain polypropylene filaments (for example type 5U), which can cause serious harm to bats.
- A minimum of five bird boxes should be installed at suitable locations within the site and a hedgehog gate inserted through the wall on the western site boundary.
- Any additional landscaping or planting scheme could include native shrub and flowering species, known to encourage invertebrate diversity.

## 8 Conclusion

A PEA was commissioned for Land at Babsham Farm, Bognor Regis. The owners of the land have proposed a formal change of use for the site to that of commercial storage.

The main habitat on site is hard standing – a habitat of low ecological value.

The findings from a preliminary ecological assessment has concluded that mitigation would be required for the protection of invertebrates, common and widespread reptiles and amphibians, birds and European hedgehog.

Enhancements could incorporate native shrub and flowering species, known to encourage invertebrate diversity, into any landscaping or planting scheme, the inclusion of bird roosting opportunities into the boundary areas of the site and the installation of a hedgehog gate, through the western boundary wall.

No further surveys for protected species or species of conservation concern are required.

If the recommendations made in this report are adopted, the proposed activities are unlikely to have a negative impact upon this site.

**If any protected species are found during the proposed work, all activities within the site should cease and an ecologist must be contacted immediately for advice.**

## 9 References

- Bat Conservation Trust (2018) Guidance Note 08/18. *Bats and artificial lighting in the UK*. Bats and the Built Environment series (Online). Available at <https://www.thelip.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/> (accessed 5th December 2018).
- Bright, P., Morris, P. and Mitchell-Jones, T. (2006) *The dormouse conservation handbook 2nd Ed*. English Nature, Peterborough
- British Standards Institute (2012). *BS 5837:2012 Trees in relation to design, demolition and construction - recommendations*. BSI Standards Ltd.
- British Standards Institute (BSI) (2013). *BS42020 - Biodiversity Code of Practice for Planning and Change of Use*. BSI, London.
- Chartered Institute of Ecology and Environmental Management (2017). *Guidelines for Ecological Report Writing, Second Edition*. Technical Guidance Series. CIEEM.
- Chartered Institute of Ecology and Environmental Management (2017). *Guidelines for Preliminary Ecological Appraisal, Second Edition*. Technical Guidance Series. CIEEM.
- Collins, J. (2016). *Bat Surveys for Professional Ecologists. Good Practice Guidelines (3rd edition)*. Bat Conservation Trust, London.
- Council Directive 79/409/EEC on the Conservation of Wild Birds ("the Birds Directive") (Online). Available at: <http://ncc.defra.gov.uk/page-1373> (accessed 5th December 2018).
- Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the "Habitats Directive") (Online). Available online at <http://ncc.defra.gov.uk/page-1374> (accessed 5th December 2018).
- Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy (Water Framework Directive 2000/60/EC) (Online). Available at [http://ec.europa.eu/environment/water/water-framework/index\\_en.html](http://ec.europa.eu/environment/water/water-framework/index_en.html) (accessed 5th December 2018).
- Eaton, M., Brown A., Noble D., Musgrove A., Hearn R., Aebischer N., Gibbons D., Evans A., and Gregory R. (2015) *Birds of Conservation Concern 4: The Population Status of Birds in the United Kingdom, Channel Islands and the Isle of Man*. British Birds 102, pp296-341 (Online). Available at <https://britishbirds.co.uk/wp-content/uploads/2014/07/BoCC4.pdf> (accessed 5th December 2018).
- English Nature (2001) *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough.
- Environment Agency, South East river basin district River basin management plan (2015) (Online). Available at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/500473/South\\_East\\_RBD\\_Part\\_1\\_river\\_basin\\_management\\_plan.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/500473/South_East_RBD_Part_1_river_basin_management_plan.pdf) (accessed 5th December 2018).
- EUROBATS Secretariat 2018. Eds. Suren Gazaryan and Tine Meyer-Cords. Publication Series No. 8. *Guidelines for consideration of bats in lighting projects*. Bonn (Online). Available at [http://www.eurobats.org/sites/default/files/documents/publications/publication\\_series/WEB\\_EUROBATS\\_08\\_ENGL\\_NVK\\_19092018.pdf](http://www.eurobats.org/sites/default/files/documents/publications/publication_series/WEB_EUROBATS_08_ENGL_NVK_19092018.pdf) (accessed 5th December 2018).
- GB Non-native Species Secretariat (Online). Available at <http://www.nonnativespecies.org/home/index.cfm> (accessed 5th December 2018).
- HM Government (1951). Rivers (Prevention of Pollution) Act 1951. Available online at: <http://www.legislation.gov.uk/ukpga/Geo6/14-15/64> (accessed 9th January 2019).
- HM Government (1981). *Wildlife and Countryside Act, 1981 (as amended)* (Online). Available at <https://www.legislation.gov.uk/ukpga/1981/69> (accessed 5th December 2018).
- HM Government (1992). Protection of Badgers Act, 1992. HMSO London (Online). Available at <http://www.legislation.gov.uk/ukpga/1992/51/contents> (accessed 5th December 2018).
- HM Government (2000). *Countryside and Rights of Way Act, 2000* (Online). Available online at: <http://www.legislation.gov.uk/ukpga/2000/37/contents> (accessed 5th December 2018).

HM Government (2005) *ODPM Circular 06/05 Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System* (Online). Available online at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/7692/147570.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf) (accessed 5th December 2018).

HM Government (2006). *Natural Environment and Rural Communities Act 2006* (Online). Available online at <http://www.legislation.gov.uk/ukpga/2006/16/contents> (accessed 5th December 2018).

HM Government (2012). *National Planning Policy Framework*. Department for Communities and Local Government (Online). Available online at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/740441/National\\_Planning\\_Policy\\_Framework\\_web\\_accessible\\_version.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/740441/National_Planning_Policy_Framework_web_accessible_version.pdf) (accessed 5th December 2018).

HM Government (2015). The Nitrate Pollution Prevention Regulations 2015 (Online). Available at [http://www.legislation.gov.uk/uksl/2015/668/pdfs/uksl\\_20150668\\_en.pdf](http://www.legislation.gov.uk/uksl/2015/668/pdfs/uksl_20150668_en.pdf) (accessed 5th December 2018).

HM Government (2017). *Conservation of Habitats and Species Regulations 2017* (Online). Available online at: <http://linc.defra.gov.uk/page-1379> (accessed 5th December 2018).

JNCC (2010). *Handbook for Phase 1 habitat survey*. Joint Nature Conservation Committee.

Natural England. The Multi-Agency Geographical Information for the Countryside (Online) Available at [www.magic.gov.uk](http://www.magic.gov.uk) (accessed 5th December 2018).

Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000) Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*). *Herpetological Journal* 10, 143-155.

Stace (2010). *New Flora of the British Isles (third edition)*. Cambridge University Press, Cambridge.

## 10 Appendix 1 – Site Photographs



**Photo 1.** Showing dense scrub in the western area of the site.



**Photo 2.** Single *Prunus* sp. The only tree to be found in the site.



**Photo 3.** Ephemeral/short perennial herb covering much of the hard standing within the site.



**Photo 4.** View of the steel tube fencing forming part of one of the old cattle pens within the site.



**Photo 5.** Example of the block walling used around and within the site.



**Photo 6.** Bare ground present in the south-west of the site.



**Photo 7.** Hard standing, present throughout most of the site.



**Photo 8.** Soil and rubble pile in the west of the site (TN 1).



**Photo 9.** Garden waste in the west of the site (TN 2).



**Photo 10.** Building waste in the centre of the site (TN 3).



**Photo 11.** Building materials stored within the site (TN 4).

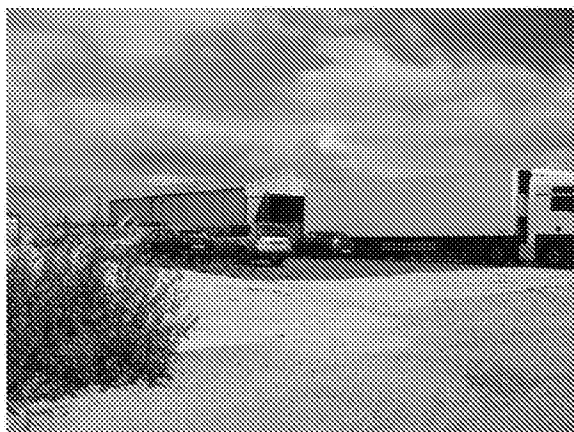


**Photo 12.** Lorry and trailer (TN 5) on the east side of the site.



**Photo 13.** Two of the three shipping containers within the site(TN 6).

## 11 Appendix 2 – Wildlife Legislation and National Planning Policy

### Introduction

The following provides a summary of the current legal protection afforded to wildlife in general and for certain species. It includes current national planning policy relevant to nature conservation.

### Wildlife and Countryside Act (1981) as amended.

The Wildlife and Countryside Act (1981) as amended remains one of the most important pieces of wildlife legislation in the UK. There are various schedules to the Act, which include protecting birds (**Schedule 1**), other animals including insects (**Schedule 5**), plants (**Schedule 8**), and control of invasive non-native species (**Schedule 9**).

Under Schedule 1 of the Wildlife and Countryside Act (1981) as amended, all wild birds (with the exception of those listed on Schedule 2), their eggs and nests are protected by law and it is an offence to:

- Take, damage or destroy the nest of any wild bird while it is in use or being built.
- Take or destroy the egg of any wild bird.
- Disturb any bird listed on Schedule 1, while it is nest building, or at a nest with eggs or young, or disturb the dependant young of any such bird.

Schedule 5 lists all non-avian animals receiving protection to a varied degree. At its strongest, the Act makes it an offence to intentionally kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturb animals while occupying such places. Examples of species with *full protection* include all EPS, common reptile species, water vole (*Arvicola amphibious*), white-clawed crayfish (*Austropotamobius pallipes*) and Roman snail (*Helix pomatia*). Other species are protected from sale, barter or exchange only, such as white letter hairstreak (*Satyrus w-album*).

The Act makes it an offence to intentionally pick, uproot or destroy any plant or seed, and sell or possess any plant listed on Schedule 8. It is also an offence to intentionally uproot any wild plant not listed on Schedule 8 unless authorised [by the landowner]. Species on Schedules 5 and 8 are reviewed every 5 years, when species can be added or removed.

Measures for the prevention of spreading non-native species which may be detrimental to native wildlife is included in the Act, which prohibits the release of animals or planting of plants into the wild of species listed on Schedule 9 (for example Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandifera*), New Zealand Pygmyweed (*Crassula helmsii*)).

The Wildlife and Countryside Act, 1981 (as amended) also prohibits certain inhumane methods of traps and devices for the capture or killing of wild animals and certain additional methods such as fixed trap, poisoning with gas or smoke, or spot-lighting with vehicles for killing species listed on Schedule 6 of the Act (this includes all bat species, badger (*Meles meles*), otter (*Lutra lutra*), polecat (*Mustela putorius*), dormouse (*Muscardinus avellanarius*), hedgehog (*Erinaceus europaeus*) and red squirrel (*Sciurus vulgaris*)).

### **The 'Birds Directive', 'Habitats Directive' and 'Natura 2000 Sites'.**

The Council Directive 79/409/EEC on the Conservation of Wild Birds ("the Birds Directive") sets a framework for the protection of wild birds. Under the directive, several provisions are made including the designation and protection of 'Special Protection Areas' (SPAs) – areas which support important bird populations, and the legal protection of rare or vulnerable species.

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the "Habitats Directive") directs member states of the EU to take measures to maintain favourable conservation status of important habitats and species. This requires the designation of a series of sites which contain important populations of species listed on Annex II of the directive (for example Bechstein's bat (*Myotis bechsteinii*), Barbastelle bat (*Barbastella barbastellus*) and white-clawed crayfish (*Austropotamobius pallipes*). Together with 'Special Areas of Conservation' (SACs), designated under the Birds Directive, SACs form a network across Europe of protected areas known as the 'Natura 2000 sites'.

Annex IV lists species in need of more strict protection, these are known as "European Protected Species (EPS)". All bat species, hazel dormice, otter (*Lutra lutra*) and great crested newts are examples of EPS that are regularly encountered during development projects.

### **The Conservation of Habitats and Species Regulations, 2017 'Habitats Regulations'**

The Conservation of Habitats and Species Regulations 2017 (the "Habitats Regulations") is the principle means of transposing the Habitats Directive and the Birds Directive, and updates the Conservation (Natural Habitats, &c.) Regulations 1994 ("the 1994 regulations") in England and Wales.

'Natura 2000' sites receive the highest level of protection under this regulation which requires that any activity within the zone of influence of these sites would be subject to a Habitats Regulations Assessment (HRA) by the competent authority (e.g. planning authority), leading to an Appropriate Assessment (AA) in cases where 'likely significant effects on the integrity of the site are identified.

For European Protected Species, Regulation 41 makes it a criminal offence to;

- Deliberately capture, injure or kill any such animal;
- Deliberately disturb wild animals of such species;
- Deliberately take or destroy their eggs (where relevant);

- Damage or destroy a *breeding or resting place* of such an animal;
- Possess, control, sell or exchange any live or dead animal or plant, of such species;
- Deliberately pick, collect, cut, uproot or destroy a wild plant of such species.

The Habitats Directive and Habitats Regulations provide for the derogation from these prohibitions for specific reasons provided certain conditions are met. An EPS licensing regime allows operations that would otherwise be unlawful acts to be carried out lawfully. Natural England, as the licensing Authority ensures that three statutory conditions (sometimes referred to as the ‘three derogation tests’) are met:

- A licence can be granted for the purposes of “preserving public health or safety or for other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment” (Regulation 53 (2) (e)).
- A licence can be granted if “there are no satisfactory alternatives” to the proposed action.
- A licence shall not be granted unless the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

### **Natural Environment and Rural Communities (NERC) Act (2006)**

The NERC Act (2006) created the statutory nature conservation body Natural England, and places a statutory duty on all public bodies, including planning authorities, under Section 40, to take, or promote the taking by others, of steps to further the conservation of *habitats and Species of Principal Importance for the conservation of biodiversity* in England (commonly referred to as the ‘Biodiversity Duty’). This duty extends to all public bodies the biodiversity duty of Section 74 of the Countryside and Rights of Way (CROW) Act 2000, which placed a duty only on Government and Ministers. Section 41 of the NERC Act (2006) lists the habitats and species of principle importance. This includes a wide range of species from mosses, vascular plants, invertebrates through to mammals and birds. It originates from the priority species listed under the UK Biodiversity Action Plan (UK BAP) with some omissions and additions.

### **Protection of Badgers Act (1992)**

The Badger is afforded specific legal protection in Britain under the Protection of Badgers Act (1992), and Schedule 6 of the Wildlife and Countryside Act, 1981 (as amended) (see above).

Under this legislation, it is a criminal offence to:

- intentionally kill, injure, take, possess, or cruelly ill-treat, a Badger, or to attempt to do so;
- interfere with a sett, by damaging or destroying it;

- to obstruct access to, or any entrance of, a Badger sett; or
- to disturb a Badger when it is occupying a sett.

A licence may be obtained from Natural England to permit certain prohibited actions for a number of defined reasons including interference of a sett for the purpose of development, provided that a certain number of conditions are met. Note that licenses are not normally granted for works affecting badgers between the end of November and the start of July.

### **National Planning Policy Framework**

The National Planning Policy Framework 2019 (NPPF) sets out the Government's view on how planners should balance nature conservation with development and helps ensure that Government meets its biodiversity commitments with regard to the operation of the planning system.

The NPPF states that the wider benefits of an ecosystem should be recognised, and the presence of a protected species is a material consideration for a development proposal (Circular 06/2005, 2005).

In accordance with the NPPF, it is important that developments should contribute to and enhance the natural and local environment by:

- Minimising impacts on existing biodiversity and habitats,
- Providing net gains in biodiversity and habitats, wherever possible,
- establishing coherent ecological networks that are more resilient to current and future pressures.

### **Birds of Conservation Concern (BoCC)**

In 1996, the UK's leading non-governmental bird conservation organisations listed the conservation status of all bird species in the UK against a series of criteria relating to their population size, trends and relative importance to global conservation. The lists, known as the 'Red', 'Amber' and 'Green' lists (in order of decreasing concern) are used to inform key conservation policy and decisions. The lists are reviewed every 5 years and are a useful reference for determining the current importance of a particular site for birds. The most recent review was undertaken in 2015 (Eaton et al, 2015), which provides an up to date assessment of the conservation status of birds in the UK.

## 12 Appendix 3 – Reducing impacts of artificial light

Bright external lighting can have a detrimental impact upon wildlife, particularly foraging and commuting bat flight paths, but more importantly can also cause bats to remain in their roosts for longer. Artificial lighting can also cause significant impacts on other nocturnal species, most notably moths and other nocturnal insects. It can also result in disruption of the circadian rhythms of birds, reducing their fitness. Guidelines issued by the Bat Conservation Trust (2018) should be considered while designing the lighting scheme. This includes the following measures:

### **Do not:**

- provide excessive lighting. Use only the minimum amount of light needed for the task.
- directly illuminate bat roosts or important areas for nesting birds.

### **Avoid:**

- installing lighting in ecologically sensitive areas such as: near ponds, lakes, rivers, areas of high conservation value; sites supporting particularly light-sensitive species of conservation significance (e.g. glow worms, rare moths, slow-flying bats) and habitat used by protected species.
- using reflective surfaces under lights.

### **Do:**

- consider employing a competent lighting designer who will apply the principals of providing the right light, in the right place, at the right time and controlled by the right system.
- minimise the spread of light to at, or near horizontal and ensure that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required.
- consider the height of lighting columns. It should be noted that a lower mounting height is not always better. A lower mounting height can create more light-spill or require more columns. Column height should be carefully considered to balance task and mitigation measures.
- consider no lighting solutions where possible such as white lining, good signage, and LED cats-eyes. For example, light only high-risk stretches of roads, such as crossings and junctions, allowing headlights to provide any necessary illumination at other times.
- use temporary close-boarded fencing until vegetation matures, to shield sensitive areas from lighting.
- limit the times that lights are on to provide some dark periods. The task being lit often varies, for example roads are less used after 23.00hrs and car parks are empty. A lighting designer can vary the lighting levels as the use of the area changes reducing lighting levels or perhaps even switching installations off after certain times. This use of adaptive lighting can tailor the installation to suit human health and safety as well as wildlife needs.

## 13 Appendix 4 – Phase 1 Habitat Survey: List of Recorded Species

Table 2. Species List for Babsham Farm – Extended Phase 1 Habitat Survey 3 July 2019

| Common Name                                    | Latin Name                      |
|------------------------------------------------|---------------------------------|
| <b>Dense Scrub</b>                             |                                 |
| bramble                                        | <i>Rubus fruticosus</i>         |
| <b>Parkland.scattered Trees – Broad-leaved</b> |                                 |
| <i>Prunus</i> sp                               | <i>Prunus</i> sp                |
| <b>Ephemeral/short perennial herb</b>          |                                 |
| barren brome                                   | <i>Bromus sterilis</i>          |
| black medic                                    | <i>Medicago lupulina</i>        |
| black nightshade                               | <i>Solanum nigrum</i>           |
| bristly oxtongue                               | <i>Helminthotheca echioides</i> |
| broad-leaved dock                              | <i>Rumex obtusifolius</i>       |
| Canadian fleabane                              | <i>Erigeron canadensis</i>      |
| cleavers                                       | <i>Galium aparine</i>           |
| colt's foot                                    | <i>Tussilago farfara</i>        |
| common bent                                    | <i>Agrostis capillaris</i>      |
| common fumitory                                | <i>Fumaria officinalis</i>      |
| common knot-grass                              | <i>Polygonum aviculare</i>      |
| common nettle                                  | <i>Urtica dioica</i>            |
| common stork's bill                            | <i>Erodium cicutarium</i>       |
| corn parsley                                   | <i>Petroselinum segetum</i>     |
| couch grass                                    | <i>Elymus repens</i>            |
| creeping buttercup                             | <i>Ranunculus repens</i>        |
| dwarf mallow                                   | <i>Malva neglecta</i>           |
| field bindweed                                 | <i>Convolvulus arvensis</i>     |
| field horsetail                                | <i>Equisetum arvense</i>        |
| field speedwell                                | <i>Veronica persica</i>         |
| garlic mustard                                 | <i>Alliaria petiolata</i>       |
| goat's-beard                                   | <i>Tragopogon pratensis</i>     |

| Common Name         | Latin Name                       |
|---------------------|----------------------------------|
| greater plantain    | <i>Plantago major</i>            |
| ground elder        | <i>Aegopodium podagraria</i>     |
| hedge bindweed      | <i>Calystegia sepium</i>         |
| herb-Robert         | <i>Geranium robertianum</i>      |
| hoary willowherb    | <i>Epilobium parviflorum</i>     |
| hogweed             | <i>Heracleum sphandylum</i>      |
| mugwort             | <i>Artemisia vulgaris</i>        |
| Nigella             | <i>Nigella damascena</i>         |
| nipplewort          | <i>Lapsana communis</i>          |
| opium poppy         | <i>Papaver somniferum</i>        |
| oxeye daisy         | <i>Leucanthemum vulgare</i>      |
| perennial rye-grass | <i>Lolium perenne</i>            |
| petty spurge        | <i>Euphorbia peplus</i>          |
| poppy               | <i>Papaver rhoeas</i>            |
| purple toadflax     | <i>Linaria purpurea</i>          |
| ragwort             | <i>Jacobaea vulgaris</i>         |
| red valerian        | <i>Centranthus ruber</i>         |
| ribwort plantain    | <i>Plantago lanceolata</i>       |
| scarlet pimpernel   | <i>Anagallis arvensis</i>        |
| scentless mayweed   | <i>Tripleurospermum inodorum</i> |
| smooth cats-ear     | <i>Hypochaeris glabra</i>        |
| smooth sow-thistle  | <i>Sonchus oleraceus</i>         |
| spear thistle       | <i>Cirsium vulgare</i>           |
| teasel              | <i>Dipsacus fullonum</i>         |
| wall barley         | <i>Hordeum murinum</i>           |
| white clover        | <i>Trifolium repens</i>          |
| white dead nettle   | <i>Lamium album</i>              |
| wild oats           | <i>Avena fatua</i>               |
| yarrow              | <i>Achillea millefolium</i>      |
| yellow-wort         | <i>Blackstonia perfoliata</i>    |
| Yorkshire fog       | <i>Holcus lanatus</i>            |

| Common Name               | Latin Name                      |
|---------------------------|---------------------------------|
| <b>Bare Ground</b>        |                                 |
| bramble                   | <i>Rubus fruticosus</i>         |
| bristly oxtongue          | <i>Helminthotheca echioides</i> |
| common nettle             | <i>Urtica dioica</i>            |
| creeping buttercup        | <i>Ranunculus repens</i>        |
| creeping thistle          | <i>Cirsium arvense</i>          |
| dandelion                 | <i>Taraxacum officinale</i>     |
| field speedwell           | <i>Veronica persica</i>         |
| hedge bindweed            | <i>Calystegia sepium</i>        |
| hedge mustard             | <i>Sisymbrium officinale</i>    |
| herb-Robert               | <i>Geranium robertianum</i>     |
| procumbent yellow sorrel  | <i>Oxalis corniculata</i>       |
| spear thistle             | <i>Cirsium vulgare</i>          |
| white clover              | <i>Trifolium repens</i>         |
| white dead nettle         | <i>Lamium album</i>             |
| <b>Birds</b>              |                                 |
| greenfinch                | <i>Chloris chloris</i>          |
| house sparrow             | <i>Passer domesticus</i>        |
| <b>Invertebrates</b>      |                                 |
| common green grasshopper  | <i>Omocestus viridulus</i>      |
| common green shield bug   | <i>Palomena prasina</i>         |
| common red soldier beetle | <i>Rhagonycha fulva</i>         |
| honey bee                 | <i>Apis mellifera</i>           |
| large white               | <i>Pieris brassicae</i>         |
| orange-tip                | <i>Anthocharis cardamines</i>   |
| red admiral               | <i>Vanessa atalanta</i>         |
| yellow meadow ant         | <i>Lasius flavus</i>            |

## 14 Appendix 5 – Data Search Results

Biodiversity record search results summary for Cut Mill House. Issued by SBRC (Ref. xBRC/18/696) 20/12/18.

**Table 3: Designations: Abbreviation Key**

|              |                                                                |
|--------------|----------------------------------------------------------------|
| Hab Dir A4   | Habitats Directive Annex 4                                     |
| Hab Reg Sch2 | Conservation of Habitats & Species Regulations 2017 Schedule 2 |
| WCA          | Wildlife & Countryside Act 1981                                |
| NERC S41     | Natural Environment & Rural Communities Act 2006 Section 41    |
| UK BAP       | UK Biodiversity Action Plan Priority Species                   |
| Rare/Scarce  | Nationally rare or scarce (formerly Nationally Notable)        |
| Sussex Rare  | Sussex Rare Species Inventory                                  |
| BoCC Red     | Birds of Conservation Concern 4: Red list                      |
| BoCC Amber   | Birds of Conservation Concern 4: Amber list                    |
| Notable Bird | Sussex Notable Bird List                                       |

**Table 4: Summary protected and designated species records (excluding bats and birds) from 2008 until present. Search area 1 km radius from site.**

| Taxon Name                | Common Name        | Designation Status                                |
|---------------------------|--------------------|---------------------------------------------------|
| Cerastium arvense         | field mouse-ear    | RedList ENG post2001 NT                           |
| Erodium moschatum         | musk stork's-bill  | Sussex Rare                                       |
| Euphorbia exigua          | dwarf spurge       | RedList GB post2001 NT, RedList ENG post2001 VU   |
| Fragaria vesca            | wild strawberry    | RedList ENG post2001 NT                           |
| Hyacinthoides non-scripta | bluebell           | WCA Sch8                                          |
| Knautia arvensis          | field scabious     | RedList ENG post2001 NT                           |
| Polypogon monspeliensis   | annual beard-grass | Nat Scarce, Sussex Rare                           |
| Silene flos-cuculi        | ragged-robin       | RedList ENG post2001 NT                           |
| Lasiommata megera         | wall               | NERC S41, UK BAP Priority, RedList GB post2001 NT |

| Taxon Name                       | Common Name                 | Designation Status                                             |
|----------------------------------|-----------------------------|----------------------------------------------------------------|
| <i>Erinaceus europaeus</i>       | west European hedgehog      | NERC S41, UK BAP Priority                                      |
| <i>Plecotus auritus</i>          | brown long-eared bat        | Hab Dir A4, Hab Reg Sch2, WCA Sch5 s9.4b/s9.4c/s9.5a, NERC S41 |
| <i>Pipistrellus pygmaeus</i>     | soprano pipstrelle (55 khz) | Hab Dir A4, Hab Reg Sch2, WCA Sch5 s9.4b/s9.4c/s9.5a, NERC S41 |
| <i>Pipistrellus pipistrellus</i> | common pipistrelle          | Hab Dir A4, Hab Reg Sch2, WCA Sch5 s9.4b/s9.4c/s9.5a, NERC S41 |
| <i>Emberiza calandra</i>         | corn bunting                | NERC S41, UK BAP Priority, Bird Red, Notable Bird              |
| <i>Prunella modularis</i>        | dunnock                     | NERC S41, UK BAP Priority, Bird Amber, Notable Bird            |
| <i>Passer domesticus</i>         | house sparrow               | NERC S41, UK BAP Priority, Bird Red, Notable Bird              |
| <i>Linaria cannabina</i>         | linnet                      | NERC S41, UK BAP Priority, Bird Red, Notable Bird              |
| <i>Phoenicurus phoenicurus</i>   | redstart                    | Bird Amber, Notable Bird                                       |
| <i>Turdus philomelos</i>         | song thrush                 | NERC S41, UK BAP Priority, Bird Red, Notable Bird              |
| <i>Sturnus vulgaris</i>          | starling                    | NERC S41, UK BAP Priority, Bird Red, Notable Bird              |
| <i>Sylvia communis</i>           | whitethroat                 | Notable Bird                                                   |

END