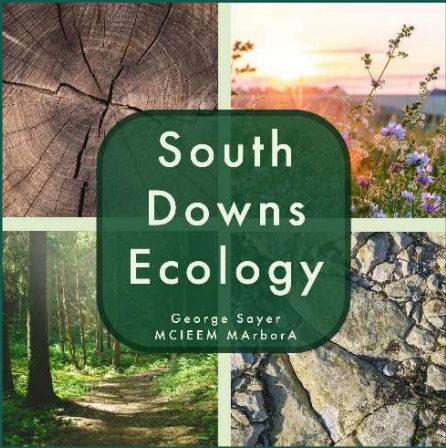




Ecological Impact Assessment

Land East of
Commonmead Barn,
Pagham



**South
Downs
Ecology**

George Sayer
MCIEEM MARBORA

Ecological Impact Assessment

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Summary

Mr Phillips has commissioned a Preliminary Ecological Appraisal and Ecological Impact Assessment of proposals for new dwellings on land east of Commonmead Barn, Pagham (SZ 89336 99040, *hereafter referred to as 'the site'*). A Preliminary Ecological Appraisal, Preliminary Bat Roost Assessment and Phase 1 Habitat Survey of the site was carried out on the 19th July 2023 and updated on 21st August 2025.

The proposal area consists of existing building and structures, of negligible ecological value, and modified grassland of low ecological value. The site is surrounded by hedges with trees offering moderate ecological value.

The proposals are for construction of 2no. new dwellings within grassland on site.

The proposals are not anticipated to have any significant impact upon ecology; the habitats proposed for removal are of low distinctiveness and offer no significant potential for protected species.

When mitigation and enhancements have been taken into account, the proposals are not considered to have a negative impact upon habitats or protected species in accordance with planning policy and once enhancements are considered, would result in a minor net gain. The proposals do not achieve the mandatory 10% net gain and off-site units will be obtained to ensure this.

The proposals would therefore accord with the relevant Arun Local Plan Policies.

1.0 Introduction

- 1.1 Mr Phillips has commissioned a Preliminary Ecological Appraisal and Ecological Impact Assessment of proposals for new dwellings on land east of Commonmead Barn, Pagham (SZ 89336 99040, hereafter referred to as 'the site'). A Preliminary Ecological Appraisal, Preliminary Bat Roost Assessment and Phase 1 Habitat Survey of the site was carried out on the 19th July 2023 and updated on 21st August 2025.
- 1.2 The following ecological impact assessment report has been completed by George Sayer (*BSc (Hons) Environmental Sciences, PgDip Endangered Species Recovery, MArborA, MCIEEM, NE Licence Holder – Bats Level 2 and GCN - Ecologist*). This appraisal consisted of a site visit to identify existing habitats on site; the habitats have been categorised broadly following the UK Habitats Classification Guidance, V2.0 (*UKHabs Ltd 2023*). In addition, an assessment of habitats and structures on the site was made to determine their potential for protected species. Following this an on-site and desktop assessment was undertaken, of the likelihood of National or European Protected Species being present on or near site, and the constraints these may pose on the development proposals.
- 1.3 Based on the results of the appraisal, recommendations for potential ecological enhancements have been provided.

Site Description and Surrounding Area

- 1.4 The site consists of a rectangle of grassland and access driveway onto Pagham Road, sited west of the Pagham Road and north of Nyetimber in Pagham. The proposal site covers c.0.22 Ha.
- 1.5 The site is located on the northern edge of the built up area of Pagham, which leads into Bognor Regis. To the immediate east is a large development underway on Hook Lane, with another development approved south-west on Pagham Road. The surroundings are mixed; arable land dominates to the north and west, and low-rise residential development, mostly of bungalows and chalets but increasingly houses form the south and east. The A27 runs east-west c.1.3 km south. Within 500.0 m is a single farm pond on the adjacent land to the west, and a larger farm pond 265.0 m west.

Proposals

- 1.6 The proposals are for construction of 2no. dwellings within the site. This would involve the redevelopment of the entire site.

2.0 Scope of Appraisal

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

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

3.0 Planning Policy and Legislation

National Planning Policy

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

Local Planning Policy

- 3.3 The site is within the Arun District; the proposals should be assessed against the Arun District Local Plan 2011-2031 (adopted 2018). Local Planning Policy relevant to this site include Strategic Policies: H SP2; ENV SP1; W SP1; and Development Policies ENV DM1 (*Designated Sites of Biodiversity and Geological Importance*), ENV DM2 (*Pagham Harbour*), ENV DM3 (*Biodiversity Opportunity Areas*), EM4 (*Protection of Trees*), and ENV DM5 (*Development and Biodiversity*) of the Arun Local Plan 2011 – 2031 (adopted 2018).

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

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

- 3.2 *Policy ENV SP1 states:*

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

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

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

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

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

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

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

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

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

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

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

3.5 Policy ENV DM2 Pagham Harbour states:

a. Within Zone A (0-400m from the boundary) as identified on the Policies Maps, development will only be permitted in exceptional circumstances where the developer is able to demonstrate there will be no detrimental effects on Pagham Harbour, including non-native species and the water environment. Regard shall also be had to tests 1-4 as set out in Policy DM1 (Designated Sites of Biodiversity or Geological Importance).

b. Within Zone B (0-5km) for all new residential development and development which is likely to have an impact on Pagham Harbour will be required to:

i. Make developer contributions towards the agreed strategic approach to access management at Pagham Harbour.

ii. create easily accessible new green spaces for recreation within or adjacent to the development site. These shall be capable of accommodating the predicted increases in demand for local walking, including dog walking. Good pedestrian links shall be provided between housing areas and new and existing green space in order to discourage car use.

c. Major developments (as defined in the GDPO 1995 as amended(61)) taking place outside Zone B and close to its boundary will be considered on a case by case basis to determine any potential effects on Pagham Harbour, and the need for any avoidance or mitigation measures.

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

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

b. Be designed in order to minimise disturbance to habitats

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

3.7 Policy ENV DM4 Protection of trees states that:

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

a. Would result in the removal of one or more trees in the interests of good arboricultural practice. This shall be demonstrated by the developer following the advice of a suitably qualified person which shall be guided by BS 5837 (2012). Details of any advice received having regard to BS 5837 (2012) shall be submitted, in writing, as part of a planning application; or

b. Would enhance the survival and growth prospects of other protected trees;

c. The benefits of the proposed development in a particular location outweigh the loss of trees or woodland, especially ancient woodland.

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

d. Land and tree surveys

e. A tree constraints plan

f. An arboricultural impact assessment to include a tree protection plan and arboricultural method statement

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

3.8 Policy ENV DM5 Development and biodiversity states that:

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

3.9 Policy GI SP1 Green Infrastructure and development states:

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

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

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

Legislation

3.10 Legislation relating to wildlife and biodiversity of particular relevance to this EclA includes:

- The Conservation of Habitats and Species Regulations 2017;
- The Wildlife and Countryside Act 1981 (as amended);
- The Natural Environment and Rural Communities (NERC) Act 2006;
- The Hedgerow Regulations 1997;
- The Protection of Badgers Act 1992;
- The Wild Mammals (Protection) Act 1996;
- The Environment Act 2021.

3.11 All species of bat and their roosts are protected under The Conservation of Habitats and Species Regulations 2017 and The Wildlife and Countryside Act 1981. It is an offence to intentionally kill, injure or handle a bat, to possess a bat (live or dead), disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

3.12 All UK bird species are protected against disturbance whilst occupying a nest under the Wildlife and Countryside Act 1981. Developments that could predictably disturb, kill or injure nesting birds could result in an offence. Furthermore, a number of bird species are targets of UK and Local Biodiversity Action Plans and listed as Species of Principle Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. This obligates local authorities to have regard to the purpose of conserving biodiversity with particular emphasis on targeted species.

3.13 All other mammals receive general protection against cruelty, inhumane killing or injuring under the Protection of Mammals Act 1996.

3.14 All widespread reptiles are protected against killing and injury under the Wildlife and Countryside Act 1981, with rarer reptiles receiving further protection under EU regulation. Reptiles must also be given consideration under the NERC Act 2006 as part of the planning process.

3.15 Great crested newts (GCN) are protected under The Conservation of Habitats and Species Regulations 2017. It is an offence for anyone to intentionally kill, injure or disturb a GCN or to damage, destroy or block access to areas of suitable habitat.

3.16 Badgers are protected under the Protection of Badgers Act 1992. It is an offence to harm badgers or disturb badgers and their setts.

- 3.17 Water voles are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 and is a priority conservation species. It is an offence to intentionally capture, kill or injure water voles, damage, destroy or block access to their places of shelter or protection (on purpose or by not taking enough care), disturb them in a place of shelter or protection (on purpose or by not taking enough care), possess, sell, control or transport live or dead water voles or parts of them (not water voles bred in captivity).
- 3.18 In the UK, dormice are legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and have significant further protection as a European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended). Dormice are also a 'Species of Principal Importance for the conservation of biodiversity' listed under section 41 of the Natural Environment and Rural Communities Act 2006 (NERC). It is an offence for anyone to intentionally kill, injure or disturb a dormouse or to damage, destroy or block access to areas of suitable habitat.
- 3.19 All other mammals receive general protection against cruelty, inhumane killing or injuring under the Wild Mammals (Protection) Act 1996.
- 3.20 Biodiversity Net Gain (BNG) is now mandatory for all applications (with a number of exemptions) under the Environment Act 2021. This application is subject to BNG which is dealt with in a separate assessment.

4.0 Methodology

Desktop Study

- 4.1 A desktop study was conducted using the government 'MAGIC' Map GIS tool; a search was carried out for all international statutory designated sites (Ramsar, SAC, SPA) within 12.0 km of the site; national statutory designated sites (SSSI, NNR, LNR) within 2.0 km of the site; and non-statutory designated sites (SNCI) and priority habitats within 2.0 km of the site. These have been summarized below and their significance considered in the context of the development proposals. A search was also carried out to identify features of ecological interest in the area, such as water bodies and ancient woodland.
- 4.2 A number of much larger developments are underway or approved in close proximity. The two most salient, which have been reviewed for relevant public information are:
- P/30/19/OUT - Hook Lane (40.0 m east) – Ecological Appraisal conducted by FPCR in 2017
 - P/178/21/OUT - Pagham Road (30.0 m south-west) – Ecological Appraisal conducted by FPCR in 2021
- 4.3 Given the overall scale and nature of the site and the proposals, and the abundance of current data available publicly from adjacent developments, a full data search from SxBRC was not considered necessary. This is in accordance with CIEEM current guidance for such projects (CIEEM, 2020).

Site Visit

- 4.4 A site visit was conducted on 19th July 2023, which was updated on 21st August 2025. Habitats were recorded according to the UK-Habs Classification System, V2.0 as described within the UK Habitats Manual V2.0 (UKHabs Ltd. 2023). All habitats present on-site were recorded on a UKHab map (Figure No. 01 – Site Habitat Plan).
- 4.5 During the survey any constraints with regard to protected species were considered; the site was considered for their potential for protected species even when signs of these species were not noted at the time of survey. Points of interest for protected species have been plotted into the Site Habitat Plan and within target notes.
- 4.6 The buildings and structures were assessed internally and externally by an experienced, licenced bat surveyor (George Sayer 2018-34434-CLS) for its potential to hold roosting bats; roof voids were assessed where relevant, and access points identified. Any evidence of bats such as grease marks, bat droppings, urine splashes were noted. Trees were inspected for features conducive to bat and bird roosting, including knot holes, limb failures, cavities and heavy ivy cover; any identified bird nests have been recorded. The bat roost assessment was conducted following the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines (2023).

- 4.7 Due to the site visit being carried out over one day, it is possible that some signs of protected species may not be apparent within this short timeframe. This is a constraint recognised within best practice guidelines and all reasonable effort has been made to identify evidence of protected species.

Ecological Impact Assessment

- 4.8 The methodology for Ecological Impact Assessment (EclA) follows best practice guidelines set by the Chartered Institute of Ecology & Environmental Management (CIEEM): 'Guidelines for Ecological Impact Assessment' (CIEEM, 2024). This includes identifying the baseline conditions on the site and subsequently rating the potential effects of the development based on the sensitivity and value of the resource affected, combined with the magnitude, duration and scale of the impact (or change). This is initially assessed without mitigation measures, and then assessed again after allowing for the proposed mitigation measures; this provides the residual effects. Mitigation measures are proposed in accordance with current best practice such as the Bat Mitigation Guidelines (Reason and Wray 2023). The assessment is divided into construction effects and longer-term operational effects.
- 4.9 Each ecological feature within the site has been considered within a defined Geographic context such as:
- International and European;
 - National;
 - Regional;
 - County;
 - District;
 - Local;
 - Site Level;
 - Negligible.
- 4.10 Based upon CIEEM guidance, value was determined with reference to the following factors:
- Its inclusion as a Designated Site or other protected area;
 - The presence of habitat types of conservation significance, e.g. Habitats of Principal Importance (NERC 2006);
 - The presence (or potential presence) of species of conservation significance e.g. Species of Principal Importance (NERC 2006);
 - The presence of other protected species e.g. those protected under The Wildlife and Countryside Act 1981;
 - The sites social and economic value.

5.0 Baseline Ecological Conditions and Protected Species Assessment

Desktop Study

Designated Sites and Habitats

- 5.1 The following is a summary of all protected and notable wildlife sites, with sites of local and national importance recorded within 2.0km of the site and sites of international importance within 12.0 km. These are divided into statutory and non-statutory; those with full legal protection and those without, but which the Local Planning Authority should still consider when deciding on planning policy and applications. These sites are summarized in tables 1 and 2 below. A description of locally designated sites is also made below.
- 5.2 This information is included so that the site can be considered within the ecological context of the surrounding area, guiding decisions related to habitat change and protected species; these sites are not necessarily representative of the habitat on or surrounding the site and may not be influenced by the proposals.
- 5.3 The site is within the Impact Risk Zone (IRZ) of the Pagham Harbour Sites of Special Scientific Interest, but proposals for less than 50 units within this location do not require consultation with Natural England.
- 5.4 The site is not within 12.0 km of the 'South Downs Bat SACs' (*namely Singleton and Cocking Tunnels SAC, Ebernoe Common SAC and The Mens SAC*) and is therefore outside their wider conservation area (SDNPA, 2018).

Table 1: Statutory Protected Designated Sites

Site Name	Reason for designation	Distance from site
<i>Bognor Reef SSSI</i>	<i>A long stretch of foreshore of great geological interest and an extensive area of vegetated shingle, a habitat type which is rare in Britain. At the western end is a small area of old sand dune with an interesting flora.</i>	<i>1.4 km SE</i>
<i>Pagham Harbour SPA, RAMSAR (also LNR, SSSI)</i>	<i>Areas of coastal and harbour habitat noted for its importance for over wintering birds. Designated an SPA for Common tern, Dark-bellied brent goose; Little tern and ruff.</i>	<i>1.64 km NW</i>
<i>Chichester and Langstone Harbours SPA / Ramsar / Solent Maritime SAC, Solent and Isle of Wight Lagoons SAC / Chichester Harbour SSSI</i>	<i>Chichester Harbour is a large estuarine basin in which at low water extensive mud and sandflats are exposed, drained by channels which unite to make a common exit to the sea. The site is of particular significance for wintering wildfowl and waders and also breeding birds both within the Harbour and in the surrounding permanent pasture fields and woodlands. There is a wide range of habitats which have important plant communities.</i>	<i>6.5 km NW</i>
<i>Singleton and Cocking Tunnels SAC</i>	<i>Disused railway tunnels providing significant roost and hibernation features, particularly for Barbastelle and Bechstein's Bats.</i>	<i>15.0 km N</i>

- 5.5 No non-statutory designated sites are within 2.0 km of the proposal site.

Habitats

Desk Study

- 5.6 Within 2.0km of the site there are Priority Habitats of, Coastal Vegetated Shingle, Saline Lagoons, Mudflats, Coastal Saltmarsh, Coastal Sand Dune, Coastal and Floodplain Grazing Marsh, Sand Gravel and Mud Intertidal Foreshore, Deciduous Woodland. There are several ponds and hedges locally, also Priority Habitats. None of these habitats were present on or adjacent site, with a single pond in the adjacent property.

Site Assessment

- 5.7 The site is given over to the habitats discussed further below.

u1b5 - Buildings

- 5.8 The site contains a small timber shed and a shipping container. The buildings are in fair condition and offer **negligible ecological value** in a broader sense. The potential for the buildings to support protected species is discussed in the preliminary bat roost assessment and protected species assessment below.

u1c – Artificial Unvegetated, Unsealed Surface

- 5.9 There are several large canopies/marquees providing storage to the south-western corner of the site. These were originally grass but this is largely worn away to bare earth with patches of nettle *Urtica dioica* and strands of bramble *Rubus fruticosus agg.* The site is accessed along a grassland track, worn largely bare. The habitat is of **negligible ecological value**.

g4 107 16 - Modified Grassland (mown and collected with tall forbs)

- 5.10 The site is mostly formed of modified grassland. This appears to contain a long, relatively homogenous grass sward which had recently been cut. The grassland was very parched making identification difficult, but it appeared largely to be formed of coarse species such as cocksfoot *Dactylis glomerata* and perennial ryegrass *Lolium perenne*. The margins, around the shed and the marquees contain several patches of ruderals dominated by nettle with small areas of bramble having been recently cut.

h2b - Non-native Ornamental Hedgerows

- 5.11 The east and west boundaries are formed of fairly neat conifer hedging, whilst the access contains a cherry laurel *Prunus laurocerasus* hedge, all of c.4.0 m height. Some hedges are within the site whilst others are outside the boundary line. The hedges offer **site ecological value** for nesting birds.

h2a6 – Other Native Hedgerow

- 5.12 The southern area of grassland is lined along the roadside with a native hedge. The hedge is regularly maintained and dominated by hawthorn *Crataegus monogyna*. The hedge offers **site-local ecological value**.

W1g 33 50 - Line of Trees with Ditch

- 5.13 The northern boundary contains a line of trees, mostly formed of English elms *Ulmus minor* with occasional ash *Fraxinus excelsior* and an alder species *Alnus sp.* The treeline is off-site and offers **site ecological value**.

6.0 Protected Species Assessment

Bats

Desk Study

- 6.1 1no. EPSML licence is recorded within 2.0 km of site, for brown long-eared within Nyetimber. Noctule and serotine have also been recorded within Eartham. Research work undertaken by adjacent developments suggests the presence of serotine, noctule, common pipistrelle, soprano pipistrelle, whiskered bat, Daubenton's bat within 2.0 km. The site is 15.0 km from the Singleton and Cocking Tunnels and as such unlikely to be of any significance to bats for which the site is designated.
- 6.2 Bat Activity Surveys of the site to the south-west (FPCR, 2021) and the site to the east (2017), conducted in 2015-2016 found relatively low bat activity (*average of 11 bats per transect*). Activity was dominated by common and soprano pipistrelle, with rare Nathusius' pipistrelle, *Nyctalus sp.*, serotine, long-eared barbastelle and *Myotis sp* bats recorded by an automated detector.

Site Assessment

- 6.3 The shed (B1) consists of a modern timber shed, with a pitched felt roof and tight wooden cladding. A small gap above the door was the only potential access point. No evidence of bats was found and the shed offers **negligible bat roost potential**.
- 6.4 The shipping container (B2) is a sealed metal unit with no access or roost features, which offers **negligible bat roost potential**. The marquees on-site are unsuitable for bats, being bright and open with no evidence of bats noted. They also offer **negligible bat roost potential**
- 6.5 No trees offer and significant bat roost potential.
- 6.6 The site itself is relatively open and therefore unlikely to form a significant commuting route but may be used for foraging by light-tolerant bats, and rarely by more light-shy bats, as suggested by the results of Bat Activity Surveys of adjacent sites. The boundary treeline is suitable for foraging and commuting bats, but isolated from other suitable habitat and as such is of **site-local value** at most.

Birds

Desk Study

- 6.7 Numerous bird species are present in the local area, including a number of woodland and farmland species. A small number of notable species such as linnet, stock dove, Cetti's warbler, starling, dunnoek, meadow pipit and house sparrow were recorded on surveys of the adjacent land to the south in 2015-6. No qualifying species of the nearby Pagham Harbour were recorded.

Site Assessment

- 6.8 The grassland is small, cut regularly and surrounded by residential and commercial properties to east and west, making it unsuitable for ground-nesting or wintering birds, which require open fields away from boundary vegetation and human disturbance. The trees and hedges are suitable for nesting by common garden birds. No suitable habitat for farmland birds exists.

Reptiles

Desk Study

- 6.9 The surroundings are known to support reptiles including common lizard *Zootoca vivipara*, slow worm *Anguis fragilis*, and grass snake *Natrix Helvetica*. Surveys of the adjacent development sites identified populations of common lizard and grass snake.

Site Assessment

- 6.10 The grassland and ruderal on-site are partly suitable for reptiles, albeit its sparse nature, the limited sward structure and regular mowing greatly reduce the likelihood of a large, permanent population. The adjacent pond may support individual grass snakes.

Amphibians

Desk Study

- 6.11 There are very records of great crested newt *Triturus cristatus* (GCN) within 2.0 km, and no positive licence returns for GCN within over 2.0 km. Pond eDNA and field surveys conducted in 2016 of a number of surrounding ponds found no evidence of GCN and eDNA returned negative results, confirming their likely absence in the vicinity. The pond immediately west of the site and the other further west were both included within these studies.

Site Assessment

- 6.12 The habitats on-site offer some limited suitability for amphibians, allowing commuting but being too exposed and lacking in structure or humid shelter for permanent populations. Given the previous negative results of nearby ponds, it is considered that the site is of **negligible value** to GCN, and likely **site value** to widespread amphibians.

Badger

Desk Study

- 6.13 Badger records are confidential; however, they are likely to be present in the surroundings.

Site Assessment

- 6.14 No evidence of badgers such as push-unders, latrines or trapped fur were noted. The site is largely fenced but gaps existing through which badgers could still commute and forage occasionally in the site.

Dormice

Desk Study

- 6.15 No records are noted in the immediate vicinity; detailed surveys undertaken of the site to the south in 2016 did not record dormice presence.

Site Assessment

The treeline on the edge of the site offers limited suitability to support dormice but is isolated from other habitats. The site offers **negligible potential**.

Water Vole

Desk Study

- 6.16 Water vole are well recorded locally; detailed surveys undertaken of the site to the east in 2016 recorded water vole in a ditch running through their site as well as the large pond west of Rookery Farm.

Site Assessment

- 6.17 The ditch behind the line of trees was dry at the time of survey and too shaded to support water voles. The adjacent pond offers suitability but is isolated from other habitats, with marginal habitats only present to the opposite bank over 10.0 m from the site boundary. The site offers **negligible potential**.

Other

- 6.18 No potential for or evidence of any other protected species was recorded. The site offers good potential for hedgehogs with grassland and hedges offering the habitats they require. The grassland sward is too lacking in sward diversity to support significant invertebrate communities. No impacts upon other protected species are considered likely and have not been assessed further.

7.0 Evaluation of Impacts and Mitigation

Designated Sites

Potential Impacts

- 7.1 Given the intervening distances, and the nature of the proposals, any impacts upon local designated sites would be of minor magnitude and highly unlikely to occur. Indirect impacts from traffic pollution during construction might cause degradation of the protected sites. This increase in pollution would be minimal, with no increase in such impacts arising in the future. No impacts upon bats or flightlines would occur, assuming basic avoidance measures are incorporated into proposals, meaning no impact would occur to the Singleton and Cocking Tunnels SAC qualifying features. The site is within 3.5 km of the Pagham Harbour; as such, the proposals are considered to result in an increase in recreation at the Pagham Harbour SPA, which could cumulatively have a significant effect through harm to the qualifying bird populations. Nutrient impacts are not considered to represent any potential for significant effects upon the Pagham Harbour within Arun District.

Mitigation and Compensation

- 7.2 The proposals would have to contribute to the relevant mitigation scheme to mitigate the recreational impact on qualifying bird species, with the LPA producing a standardised appropriate assessment.

Residual Impacts

- 7.3 The impacts will be negligible and non-significant.

Habitats

Potential Impacts

- 7.4 The proposals would impact only modified grassland, sparsely vegetated land and non-native hedge. In the absence of mitigation, the proposals would include dust, noise and light pollution of adjacent pond habitats, treeline and ditch. Given the proposals' nature and scale, impacts are of **very minor magnitude** at no more than **site level**.
- 7.5 The proposals would remove mostly modified grassland. The proposals would result in a minor BNG area and hedgerow loss.

Mitigation and Compensation

- 7.6 All construction will be undertaken in accordance with best practice advice with regards to control of dust, noise and emissions. Any chemicals or fuel shall be stored appropriately and on existing surfaces away from the ditch and pond. All storage will be undertaken outside tree and hedge RPAs. The pond shall be protected from dust and debris fall through installation of fine debris netting where the pond abuts the site. All new lighting shall accord with the principles of the latest BCT/ILP Guidance Note 08/23, avoiding lightspill onto the treeline and hedges. Any loss of habitat will be more than mitigated for through enhancements to the modified grassland to the south.

- 7.7 Because of the scale and nature of the site and proposals, achieving BNG on-site will not be possible. Off-site procurement of units will be undertaken. These shall be procured from the same LPA or NCA to ensure gains within the local area.

Residual Impacts

- 7.8 Once mitigation is taken into account, the impacts will be negligible and non-significant.

Bats

Potential Impacts

- 7.9 No potential for impacts to roosting bats are highlighted. Construction noise, dust, lighting and vibration may temporarily make the site slightly less suitable for foraging bats, and bats commuting along the hedges and treeline. Given the overall size and nature of the site, the potential impacts to foraging bats is low.

Mitigation and Compensation

- 7.10 Any works shall be undertaken with due consideration and measures to minimise dust and noise. No works shall take place externally between 30 minutes before sunset until 30 minutes after sunrise. No external works lighting shall be used other than the minimum necessary security lighting, and the new dwellings should only be fitted with warm-white downlighters, and only if lighting is necessary. The use of controls and planting shall be used to minimise lightspill. No lightspill shall be permitted onto the rear treeline. All new lighting shall accord with the principles of the BCT/ILP Guidance Note 08/23.
- 7.11 Any loss of habitat shall be compensated with new planting or better habitats for bats. New boundary planting is proposed to enhanced commuting corridors for bats.

Residual Impacts

- 7.12 The overall impact of the scheme will be negligible. New roosting features and enhancement of the grassland to south, and treeline would result in a gain for bats.

Nesting Birds

Potential Impacts

- 7.13 The cherry laurel hedge would require removal as part of proposals. In the absence of mitigation, proposals may disturb a bird's nest in the hedge to be removed by incautious construction works. The potential risk is deemed to be low.

Mitigation and Compensation

- 7.14 The works shall be undertaken with due regard to the hedges and line of trees, which must be protected using tree protection measures. The hedge must be removed outside of nesting season (season: March-August inclusive) and must be first checked for signs of bird nesting before removal. Any active nests must be left undisturbed until any chicks have fledged. New boundary planting is proposed to enhanced nesting habitat for birds.

Residual Impacts

- 7.15 The overall impact of the scheme will be negligible. New bird boxes to buildings will increase the potential for birds such as house sparrow.

Reptiles

Potential Impacts

- 7.16 The proposals remove only a small area of low suitability habitat. In the absence of mitigation individual widespread reptiles might be harmed during clearance, but given the area of impact is regularly cut, the likelihood of further impact is no higher than the current regime.

Mitigation and Compensation

- 7.17 The construction area shall be kept regularly mown in the growing season, and mown at least 24 hours prior to clearance to ensure any reptiles can vacate prior to works. The construction area and immediate surroundings shall be kept well maintained to prevent any reptile habitat forming.

Residual Impacts

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

Other Species

Potential Impacts

- 7.19 There is no potential for significant impacts upon rare amphibians, badgers, water voles, dormice, or significant invertebrates. Individual hedgehogs, small mammals and common amphibians may use the site and be injured during works.

Mitigation and Compensation

- 7.20 Works to the site shall be aware of the possibility of small mammals and amphibians, providing ramps or covers to any excavations or pipework, which shall be checked daily to accord with the Protection of Mammals Act 1996. The grass shall be kept well cut to ensure hedgehogs would not be sheltering within the construction zone. New fences must be fitted with 12cm square gaps to allow hedgehogs free access. These shall have signage fitted to make owners aware of the need to keep the access points open.

Residual Impacts

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

8.0 Ecological Enhancements

8.1 The development proposals will be expected to demonstrate an overall positive impact on the natural environment. The following ecological enhancements have been proposed as suited to the location and the proposals and would result in a Biodiversity Net Gain, in accordance with Local and National Policy.

- Incorporation of integrated bird boxes into the new buildings at appropriate heights and orientations, to include swift boxes, standard bird boxes and house sparrow terraces;
- Incorporation of bat boxes into the new dwellings; at least two small crevice-style boxes and two larger or cavity style boxes, to suit pipistrelles, long-eared, Myotis and serotine bats;
- Addition of log piles to the corners of the site for insects, reptiles and hedgehogs;
- Planting of native trees and boundary hedge of ecological value within the proposal site;
- Enhancement of off-site land to the south, by relaxing the mowing regime of the margin with the hedge and by addition of further native trees and log piles for invertebrates and mammals.

9.0 Conclusions

- 9.1 Overall, the proposals are considered to represent a 'negligible' impact upon ecology and no further surveys are recommended. The proposal area consists largely of modified grassland of low value and hedges with trees of low-moderate value.
- 9.2 The proposals are not anticipated to have any significant impact upon ecology; the proposals stand a 'negligible' chance of disturbing bats or their roosts provided basic avoidance measures are incorporated into construction. No further surveys are recommended at the site for these proposals. The proposals present a very low risk of harm to nesting birds, and reptiles, which can easily be avoided using basic construction protection measures.
- 9.3 No significant effects are anticipated upon any designated sites or priority habitats, including the Pagham Harbour and South Downs Bat SACs, providing some basic mitigation, including contribution to the Bird Aware Scheme is undertaken.
- 9.4 When mitigation and enhancements have been taken into account, the proposals are not considered to have a negative impact upon habitats or protected species in accordance with planning policy and once enhancements are considered, could result in a net gain. Off-site purchase of BNG units would be necessary to satisfy the Environment Act 2021.
- 9.5 The proposals include for new proportionate ecological enhancements. The proposals would therefore accord with the relevant Local Plan Policies.

10.0 References

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Table 3 – Species Lists**Modified Grassland (Proposal Site)**

Common Name	Scientific Name	DAFOR
Bittersweet	<i>Solanum dulcamara</i>	O
Bramble	<i>Rubus fruticosus agg.</i>	O
Burdock	<i>Arctium minus</i>	O
Cocksfoot	<i>Dactylis glomerata</i>	D
Creeping Buttercup	<i>Ranunculus repens</i>	R
Hogweed	<i>Heracleum sphondylium</i>	O
Ivy	<i>Hedera helix</i>	LF
Nettle	<i>Urtica dioica</i>	O
Perennial Ryegrass	<i>Lolium perenne</i>	D
Yorkshire Fog	<i>Holcus lanatus</i>	R

Modified Grassland (Lawn Area)

Common Name	Scientific Name	DAFOR
Catsear	<i>Hypochaeris radicata</i>	R
Creeping Buttercup	<i>Ranunculus repens</i>	O
Daisy	<i>Bellis perennis</i>	LF
Perennial Rye-grass	<i>Lolium perenne</i>	D
Ribwort Plantain	<i>Plantago lanceolata</i>	O
Selfheal	<i>Prunella vulgaris</i>	R
White Clover	<i>Trifolium repens</i>	O

Trees and Hedges

Common Name	Scientific Name	DAFOR
Alder	<i>Alnus sp.</i>	O
Ash	<i>Fraxinus excelsior</i>	F
Cherry	<i>Prunus sp.</i>	R
Cherry Laurel	<i>Prunus laurocerasus</i>	LD
Cypress	<i>Cupressus sp.</i>	LD
Elm	<i>Ulmus minor</i>	LD
Hawthorn	<i>Crataegus monogyna</i>	LD
Rose	<i>Rosa sp.</i>	R
Rowan	<i>Sorbus aucuparia</i>	R
Weeping Willow Leaved Pear	<i>Pyrus salicifolia pendula</i>	R
Whitebeam	<i>Sorbus aria 'Lutescens'</i>	R

11.0 Appendix 1 – Site Photos

Photo 1 – View of the proposal site looking north-east.



Photo 2 – View of the proposal site looking south-west.



Photo 3 – View of the treeline to the north.



Photo 4 - View of the shed B1.



Photo 5 – View of the shipping container B2.



Photo 6 – Tall forb vegetation in the corners of the site.



Photo 7 – Adjacent pond.



Photo 8 – Grassland area off-site to south proposed for enhancement.



Photo 9 – Update photo from 2025.



Photo 10 – Update photo from 2025.



12.0 Site Habitat Plan



13.0 Site Aerial

