



Preliminary Ecological Appraisal

Land at Wicks Farm South Yard,
Ford Lane,
Arun,
BN18 0DF.

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing. Whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date. This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated, only dominant species may be recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

1.1 The Ecology Partnership was commissioned by John Hall to undertake a preliminary ecological appraisal (PEA) of land at Wicks Farm South Yard, Ford Lane, Arun, BN18 0DF.

1.2 The key objectives of a PEA (CIEEM 2017) are to:

- Identify the likely ecological constraints associated with a project;
- Identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy' (CIEEM 2016; BSI 2013, Clause 5.2);
- Identify any additional surveys that may be required to inform an Ecological Impact Assessment (EcIA); and
- Identify the opportunities offered by a project to deliver ecological enhancement.

1.3 This report comprises:

- The legislative and planning context (Section 1);
- Assessment methodologies (Section 2);
- Results (Section 3);
- Implications for development, including an impact assessment (Sections 4 and 5);
- Conclusions (Section 6).

Site Context

1.4 The site is situated just off Ford Lane, just northwest of Ford village, and falls under Arun District Council (SU 99282 03814). The site covers approximately 0.43ha and consists of predominately hardstanding and large agricultural buildings, with some vegetation running along the southern and northern boundaries. The surrounding area consists of, agricultural fields to the south and west, a residential unit to the east and a mix of residential units and agricultural buildings to the north.

1.5 The approximate red line boundary of the site is shown in Figure 1 below and in Figure 2 in wider context.

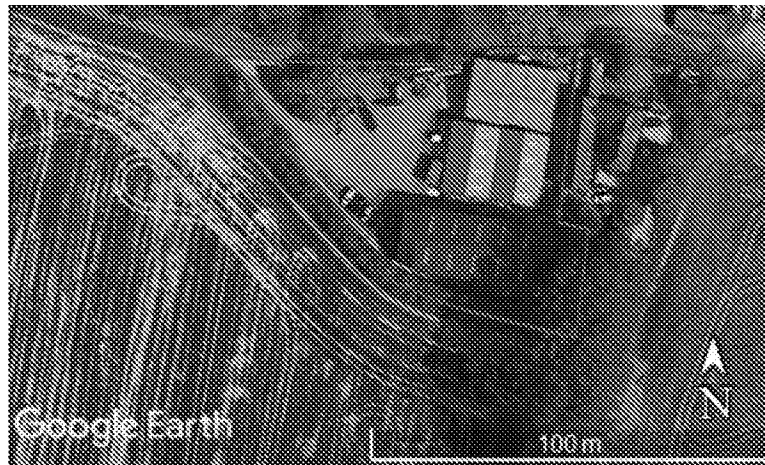


Figure 1: Approximate location of the survey area (red line)

Taken using Google Earth Pro (5th January 2022)



Figure 2: Approximate location of the survey area (red) showing the surrounding area

Taken using Google Earth Pro (5th January 2022)

- 1.6 The current proposals for the site include the creation of a new single span warehouse, in the northwest corner of the site.

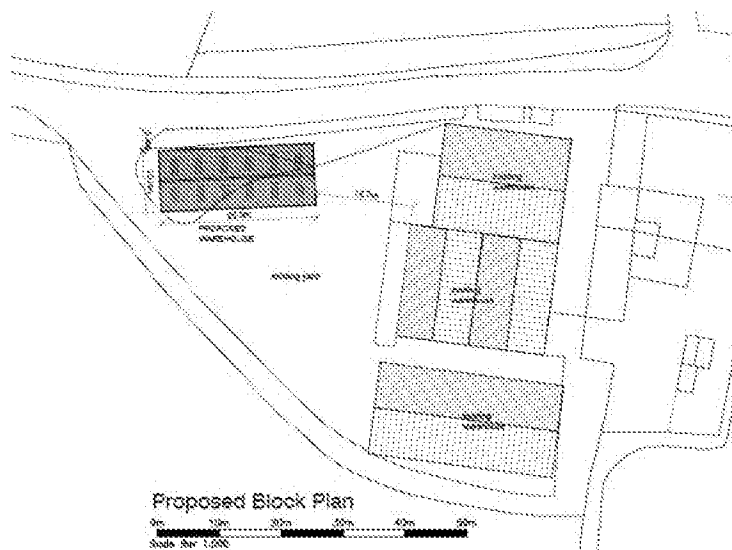


Figure 3: Current proposals for the site.

Provided by Curtis Leeves Technical Ltd (24th November 2021)

Planning Policies

- 1.7 The site was surveyed to assess its ecological value and to ensure the proposals were compliant with relevant planning policy and legislation. Policy guidance is provided by the National Planning Policy Framework (NPPF 2021) as well as policies from Arun District Council. The Arun Local Plan (July 2018) provides a framework for planning decisions in the district. Policies relevant to biodiversity and environmental protection have been included below:

- *Policy ENV SP1: Natural Environment,*
- *Policy ENV DM1: Designated sites of biodiversity,*
- *Policy ENV DM3: Biodiversity Opportunity Areas,*
- *Policy ENV DM4: Protection of trees, and*
- *Policy ENV DM5: Development and biodiversity.*

- 1.8 The Environment Bill (Environment Act 2021) received Royal Assent on 9th November 2021 and is now an Act of Parliament (Law). The Environment Act 2021 outlines the requirement for granted developments to provide a biodiversity value post-development which exceeds the pre-development biodiversity value of the onsite habitat by at least

10%. Proposals also need to provide a net gain in biodiversity in accordance with the NPPF.

- 1.9 The assessment also takes into consideration nature conservation and wildlife legislation including, but not limited to, the Wildlife and Countryside Act 1981 (as amended), the Natural Environment and Rural Communities (NERC) Act 2006 and the Conservation of Habitats and Species Regulations 2017.
- 1.10 The report has been produced with reference to current guidelines for preliminary ecological appraisal (CIEEM 2017) and in accordance with BS 42020:2013 Biodiversity – Code of Practice for Planning and Development.
- 1.11 The site was surveyed to assess its ecological value and to ensure compliance with national and local plan policies. The report has been produced with reference to current guidelines for preliminary ecological appraisal (CIEEM 2013) and in accordance with BS 42020:2013 Biodiversity – Code of Practice for Planning and Development.

2.0 Methodology

Desktop Study

- 2.1 A desktop study search was completed using an internet-based mapping service (www.magic.gov.uk) for statutory designated sites and an internet-based aerial mapping service (maps.google.co.uk) was used to understand the habitats present in and around the survey area, including identifying habitat linkages and features (ponds, woodlands etc.) within the wider landscape.

Preliminary Ecological Appraisal

- 2.2 A preliminary ecological appraisal (PEA) was undertaken on 9th June 2021 by ecologist Kieran McGranaghan BSc (Hons) PGDip QCIEEM and Charlotte Chandler BSc (Hons) MSc QCIEEM. This included an assessment of both the habitats and protected species potential of the site.

Phase 1 Habitat Survey

- 2.3 The surveyors identified the habitats present, following the standard 'Phase 1 habitat survey' auditing method developed by the Joint Nature Conservancy Council (JNCC). The site was surveyed on foot and the existing habitats and land uses were recorded on an appropriately scaled map (JNCC 2010). The dominant plant species in each habitat were recorded, where appropriate.

Protected Species Assessments

- 2.4 Any evidence of protected species was recorded. Standard survey methods for finding evidence and assessing presence or likely absence based on habitat suitability were used for bats in trees and buildings (Collins 2016), breeding birds (BTO 2020), hazel dormice (Bright *et al.* 2006), great crested newts (ARG 2010), reptiles (Froglife 2015), badgers (Creswell *et al.* 1990) and water voles (Strachan *et al.* 2011).

Limitations

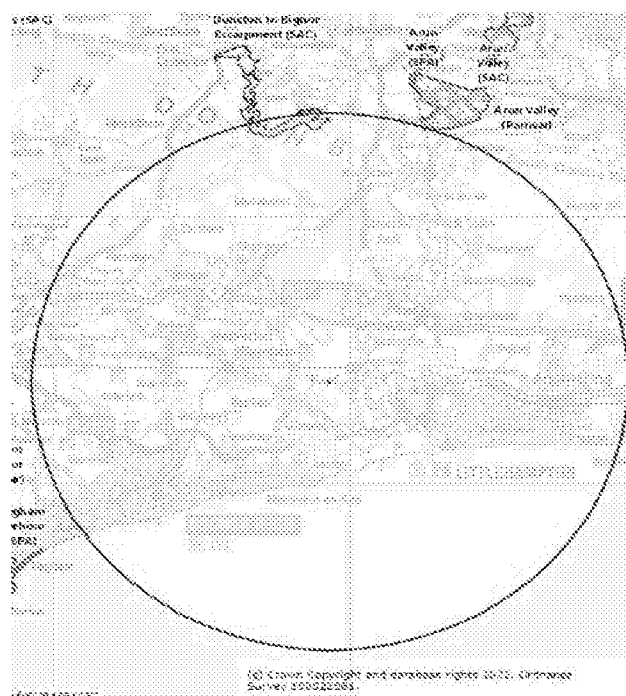
- 2.5 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment. The site was visited over the period of one site visit. As such, seasonal variations cannot be observed and potentially only a selection of all species that potentially occur within the site have been recorded. Therefore, the survey provides a general assessment of potential nature conservation value of the site and does not include a definitive plant species list.
- 2.6 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on site, based on the suitability of the habitat and any direct evidence on site. It should not be taken as providing a full and definitive survey of any protected species group. The assessment is only valid for the time when the survey was carried out. Additional surveys may be recommended if, on the basis of this assessment, it is considered reasonably likely that protected species may be present.

3.0 Results

Desktop Study

3.1 There are two international designations within 10km of the sites red line boundary (Figure 4). These are:

- Duncton to Bignor Escarpment Special Area of Conservation (SAC) located approximately 9.3km northwest. Designated for its Asperulo-Fagetum beech forests.
- Arun Valley Ramsar, Special Protection Area (SPA), and SAC located approximately 9.9km northeast. Designated for its populations of Ramshorn snails, Bewick's Swan as well as regularly used by over 20,000 waterfowl.



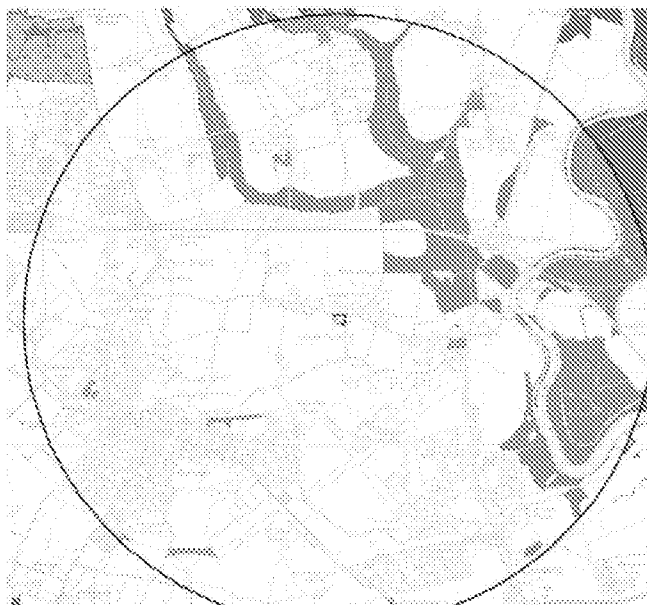
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Figure 4: Internationally designated sites within 10km (red circle) of the sites red line boundary.

3.2 There are no statutory designated site within 2km of the sites red line boundary. However, the site does fall within the impact risk zone (IRZ) of multiple of the surrounding designated sites, with the closest being Climping Beach Site of Special Scientific Interest (SSSI) approximately 3.4km southeast. Proposals listed as likely to cause harm to these sites include; pylons and overhead cables, large non-residential developments outside

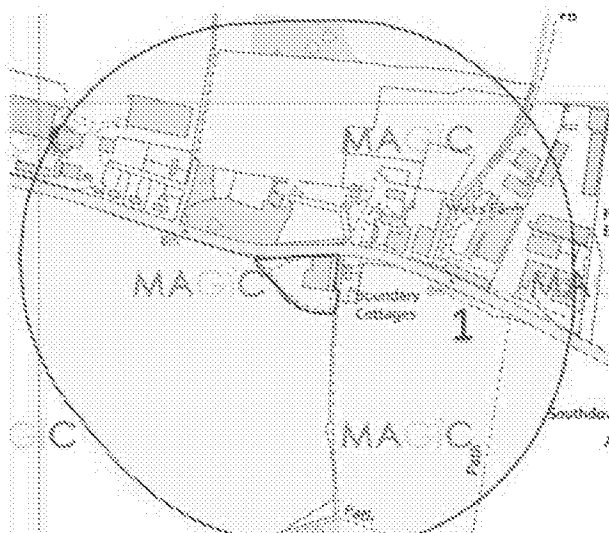
existing settlements/urban areas where footprint exceeds 1ha, residential developments of 50 or more houses, livestock and poultry units with floorspace over 500m², slurry lagoons and digested stores over 750m², manure stores over 3500t, general combustion processes over 50MW and landfill.

- 3.3 There are no non-statutory designated areas within a 1km radius of the site, however a biodiversity opportunity area (BOA) is located approximately 140m northeast of the site.
- 3.4 The site is surrounded by a number of priority habitats (Figure 5), the closest of each type are:
- Coastal and floodplain grazing marsh approximately 360m northeast,
 - Deciduous woodland approximately 670m east,
 - Traditional orchards approximately 685m east,
 - Ancient and semi-natural woodlands approximately 930m northeast,
 - Mudflats approximately 1.06km east,
 - Coastal saltmarsh approximately 1.16km east and
 - Woodpasture and parkland approximately 1.86km north.
- 3.5 OS mapping, historical records and surveys of the site revealed one pond within a 250m radius of the site (Figure 6), which is located approximately 115m east of the site.
- 3.6 The search did not reveal any European Protected Species (EPS) licences issued within a 2km radius around the red line boundary.



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Figure 5: Coastal and floodplain grazing marsh (blue), deciduous woodland (dull green), traditional orchards (lime green), ancient & semi-natural woodland (vertical hatches), mudflats (brown), coastal saltmarsh (light green by river) and woodpasture and parkland (pale green with imposed trees) within 2km (blue circle) around the red line boundary of the site.



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Figure 6: Ponds within a 250m buffer (Yellow zone) around the red line boundary of the site.

Phase 1 Habitat Survey

- 3.7 The site was primarily composed of a large section of hardstanding, with three large metal warehouses. Other habitats noted on site included bare earth, a small brick structure, a tree line and an area of scrub.
- 3.8 Only species of note have been listed within this section, the full species list can be found within **Appendix 3: Species List**.

Hardstanding

- 3.9 Hardstanding was abundant over the site, in the form of the access road and the parking/works area.

Bare Earth

- 3.10 Bare earth was located along part of the northern boundary of the site.

Buildings

- 3.11 Three large metal warehouse units, as well as a small brick structure were identified within the site.

Dense scrub

- 3.12 A small section of dense scrub was noted near the northwest corner of the site, on top of the earth bund to the east of the access track, and a larger section ran along the southern boundary of the site. Dog rose and hawthorn were abundant within this habitat with false-oat grass and beech appearing frequently.

Line of Trees

- 3.13 A small line of trees was present along part of the northern boundary, which was dominated by hornbeam, with a eucalyptus tree and cherry laurel appearing rarely.

Protected Species

Roosting Bats

- 3.14 All three of the warehouses were in active use, with large skylights and internal lighting. Furthermore, none of the buildings had any internal voids, in which bats could possibly roost. An internal and external walkover of the buildings did not identify any potential roost features or evidence of roosting bats. As such, all three of the buildings were considered to support 'negligible' roosting bat potential.
- 3.15 The small brick structure along part of the northern boundary of the site also had a corrugated metal roof and a small section of plastic roof, which did not provide any visible potential roosting features for bats. Furthermore, the building was open faced, preventing a stable internal environment from forming. No evidence of bat activity was identified during the inspection. As such, this building was also considered to support negligible roosting bat potential.
- 3.16 None of the trees on site were considered to be of a size, age or contains features of which would classify them as supporting more than 'negligible' roosting bat potential.

Commuting and Foraging Bats

- 3.17 It was considered that the building and hardstanding habitats over the site, offered very low potential for foraging and commuting bats, and as these are the dominant habitat over the site, it stands to reason that the majority of the site offers relatively low foraging and commuting potential for bats. It should be noted however, that the line of trees and dense scrub habitats offer higher quality potential, however due to their small size and scope the overall potential they offer is still considered to be low. It was therefore considered that the majority of the commuting and foraging potential for bats was located around the boundary vegetation of the site, with the site offering low levels of potential overall.

Badgers

- 3.18 No evidence of badgers, such as setts, latrines or snuffle holes, were identified anywhere on site or in the surrounding area, where access was possible. It is considered highly likely

that the species are present within the local area, as the local landscape offers good habitat for the species.

- 3.19 It is therefore considered likely that badgers may use the site for commuting and foraging purposes.

Great Crested Newts (GCN)

- 3.20 Only one pond was identified within a 250m radius of the site, approximately 115m east of the site (P1). P1 was surveyed to identify its potential to support GCN, through the use of the Habitat Suitability Index (HSI). The suitability index is calculated for each of the 10 categories. These are then analysed using the equation below to obtain the geometric mean or HSI score of the ten suitability indices. The macrophyte cover was not estimated for P1, as the survey was undertaken in January, which is outside the March to September timeframe.

$$HSI = (SI_1 \times SI_2 \times SI_3 \times SI_4 \times SI_5 \times SI_6 \times SI_7 \times SI_8 \times SI_9)^{1/9}$$

- 3.21 The calculated score should be between 0 and 1 and will fall within one of several bands, which correspond to a given category for the pond (Table 1).

Table 1: HSI scores and pond suitability

HSI	Pond Suitability
<0.5	Poor
0.5-0.59	Below Average
0.6-0.69	Average
0.7-0.79	Good
>0.8	Excellent

- 3.22 Table 2 below shows the breakdown for the Habitat Suitability Index for Pond 1, which concluded that Pond 1 supported 'poor' suitability for GCN, primarily from the lack of other ponds in the surrounding area and lack of suitable terrestrial habitat surrounding the pond.

Table 2: Summary of great crested newt survey results (9th June 2021)

Pond ref	P2
SI1 – Location	1
SI2 – Pond area	1
SI3 – Pond drying	0.5
SI4 – Water quality	0.33
SI4 – Shade	0.6
SI6 – Fowl	1
SI7 – Fish	1
SI8 – Ponds	0.1
SI9 – Terr'l habitat	0.01
HSI	0.36

- 3.23 It was considered that the buildings, bare earth and hardstanding habitats which dominated the site, offer negligible potential for GCN due to the lack of protection they offer from predation. Only the tree line and scrub habitats over the site superficially offer commuting and foraging potential for GCN.
- 3.24 The site itself also has limited connectivity to the wider landscape, with Ford Lane running across the northern boundary, acting as a major barrier to movement. The site is connected to the pond by some suboptimal grassland, however due to the lack of suitable habitats on site (notably high quality terrestrial habitats or ponds), it is considered highly unlikely that any GCN would commute to the site.
- 3.25 Furthermore, it is considered highly unlikely that any GCN would be impacted as a result of the proposals, as all of the works are occurring on the hardstanding and bare earth habitats. Overall, as the site consists of largely suboptimal habitat for GCN, works is only occurring on the hardstanding and bare earth habitats which offer negligible potential and lack of connectivity to offsite GCN habitat, that it is highly unlikely that GCN will be impacted as a result of the proposals. As such, GCN are not considered further within this report.

Hazel Dormice

- 3.26 The majority of the habitats were considered to offer negligible potential for commuting and foraging dormice, with the exception of the tree line and scrub habitats.

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- 3.27 The tree line and scrub habitats contained species which offer various sources of food for dormice, including bramble and hawthorn. However, these habitats were limited size and extent and lacked of connectivity to other suitable habitats. Considering this, dormice are not considered to be present on site and no impacts on dormice are predicted as a result of the proposals. As such, dormice are not considered further within this report.

Reptiles

- 3.28 It was considered that the building, bare earth and hardstanding habitats over the site, offer negligible potential for reptiles due to the lack of protection they offer from predation. Only the tree line and scrub habitats over the site were thought to offer some protection from predation and these features on site are limited in extent.
- 3.29 Overall, as the site consists of largely suboptimal habitat for reptiles, and that proposed works will occur on the hardstanding and bare earth habitats which offer negligible potential for reptiles, that it is highly unlikely that reptiles will be impacted as a result of the proposals. As such, reptiles are not considered further within this report.

Nesting Birds

- 3.30 The tree line and scrub habitats could provide potential for birds to nest within, this was further supported by the presence of old bird nests within both of these habitats during the walkover.
- 3.31 The designated sites for birds in the wider landscape, are considered to be of sufficient distance from the proposed development area as to not be considered functionally linked. Furthermore, the on site habitats provide negligible habitat for foraging water fowl or for species such as bewick's swan. As such, no impacts on bird species from designated sites are considered.

Other Species

- 3.32 Due to a lack of suitable habitat and/or connectivity, the site was not considered suitable for other protected species, such as barn owls, water voles or otters.

4.0 Discussion

- 4.1 The following paragraphs consider the effects of the development on designated sites, priority habitats and protected and priority species. Where the desk study and Phase 1 survey provide sufficient evidence for an assessment of effects on any of these groups to be taken through planning, these are detailed below, the need for additional surveys and when and how these should be completed are summarised, if required.

Effects on Designated Sites

- 4.2 Whilst the site does not fall within or adjacent to any designation, several are present within the local area. The closest internationally designated area is Duncton to Bignor Escarpment SAC approximately 9.3km northwest of the sites red line boundary.
- 4.3 It is considered that as Duncton to Bignor Escarpment SAC is designated for its *Asperulo-Fagetum* beech forests, which are not being directly impacted by the proposals, that no significant adverse impacts on the integrity of this site are likely to occur as a result of the proposals. Furthermore, the distance between the site and the designated area, it is highly unlikely that any significant indirect adverse impacts are likely to occur, such as noise or air pollution as a result of the proposals, especially as they are only for the creation of a single new warehouse.
- 4.4 Similarly, as the site is dominated by hardstanding and buildings with no waterbodies or wetland habitat within the red line boundary, the site is not considered to support potential for the qualifying species of Arun Valley Ramsar, SAC and SPA, including the Bewick's Swan. The suitability of sites for wetland bird species include on distance from the designated site, the size of the grazing area, the type of grassland management, visibility and disturbance. Larger species such as swans, prefer large open sites where they have clear sightlines and short, lush grass for grazing. Considering the lack of any suitable grazing habitat and the closed nature of the site, it is considered highly unlikely that any water birds would utilise the site.
- 4.5 As such, the site is not considered to be functionally linked to Arun Valley Ramsar, SAC and SPA. Furthermore, the distance between the site and the designated area makes it highly unlikely that there would be any significant adverse direct or indirect impacts as a

result of the small scale and nature of the proposals. Furthermore, the limited size and high levels of activity over the site, would further deter the Bewick's swan from landing within the red line boundary. Overall, the proposals are not considered to have any likely significant impacts on any internationally designated sites within the local area.

- 4.6 Whilst there are no statutory designated areas within a 2km radius of the site, the site does fall within one of the impact risk zones of multiple Sites of Species Scientific Interest (SSSIs). However, as the proposals do not fall within the listed developments which are likely to cause harm to these sites, no significant adverse impacts are predicted as a result of the proposals.
- 4.7 There are no non-statutory designated areas within a 1km radius of the site, but a biodiversity opportunity area (BOA) lies approximately 140m northeast of the site. Again however, due to the distance from the site to the BOA as well as the limited nature and scale of the works, and the size of the site, the proposals will not impact upon the functionality of the BOA.
- 4.8 Given the small scale of the proposals and its distance from these designations, it is considered highly unlikely that the proposals would have any significant negative impacts on any of the protected areas located near the site, and as such would adhere to local policies.

Effects on Priority Habitats

- 4.9 There are a number of priority habitats within the wider landscape, which are all habitats of principle importance for the conservation of biodiversity under Section 41 of the NERC Act 2006. These habitats are not present on site nor do they lie adjacent to the redline boundary, with the closest being an area of coastal and floodplain grazing marsh approximately 360m northeast of the site. As such no direct impacts or habitat loss or isolation is predicted from the development.
- 4.10 Government guidance¹ requires the protection of ancient woodland, with at least a minimum 15m buffer between the woodland and development. Ancient woodland is

¹ <https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences>

located within the wider landscape; however, the closest, is located approximately 930m northeast. As such, no impacts to areas of ancient woodland are expected, especially as the proposal result in the creation of only approximately nine new houses, and thus there should be no significant increase in recreational activity on ancient woodlands as a result of this proposal.

- 4.11 It is considered that the proposals are unlikely to have any significant adverse impacts on this or other priority habitats within the local area, and as such would adhere to local policies.

Effects on on-site Habitat

- 4.12 The majority of the site consists of hardstanding, buildings and bare earth, with a small area of scrub and a line of trees. The proposals will only be impacting a section of hardstanding and possibly a small area of bare earth, whilst retaining the remaining habitats on site. Overall, due to the small size and nature of the proposals, which are to occur on pre-existing hardstanding whilst retaining the remaining habitats on site, no significant adverse impacts are predicted on the habitats on site.

Effects on Protected Species

Bats

- 4.13 All of the trees and buildings on site were considered to support 'negligible' roosting bat potential, and as such can be removed without further consideration for this species.
- 4.14 It was considered that the site offers low levels of commuting and foraging potential, with the bats most likely sticking to the boundary features, such as the line of trees and areas of scrub.
- 4.15 The Bat Conservation Trust survey guidelines (Collins 2016) state that in table 4.1, *"guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement"*.

It is important that proportionality is employed when recommending further survey work for bat species on a proposed development site. As stated within section 8.2.7 of these guidelines (Collins 2016), the following points need to be taken into account with regard to planning activity surveys:

- Likelihood of bats being present;
- Likely species concerned;
- Number of individuals;
- Type of habitat affected;
- Predicted impacts of the proposed development on bats;
- Type and scale of proposed development.

4.16 Considering the above, transect surveys are not thought to be required, due to the small scale and nature of the works, and as the foraging and commuting potential habitats are being retained on site. A sensitive lighting scheme will be required to protect the foraging and commuting potential of the retained features, and enhancements should be made to foraging and commuting bats within the proposals. Enhancements for bats are detailed later in the report.

4.17 Any proposed lighting scheme as part of the proposals will have to consider bats in the surrounding area as well as the site. All bat species are nocturnal, resting in dark conditions in the day and emerging at night to feed. Bats are known to be affected by light levels, which can affect both their roosting and foraging behaviour. This needs to be considered with a sympathetic lighting scheme, with special consideration of the tree line and the area of dense scrub. Recommendations include:

- Installing lighting only if there is a significant need,
- Using LED luminaries due to their lower intensity, sharp cut-off and good colour rendition – any lights with UV elements or metal halide lights should not be used,
- Lights with peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone 2012),
- Lights with an upward light ratio of 0% and good optical control,
- Careful consideration of column height to avoid light spill,
- Any external security lights should use motion-sensors and short (1-minute) timers.

-
- 4.18 If these methods are followed, no significant residual impacts are predicted on bats on site or within the local area, and as such would adhere to local policies.

Badgers and small mammals

- 4.19 Whilst there was no evidence of badgers found within or around the site, it was considered possible that badgers could use the site for commuting purposes, as such best practice guidelines are recommended to be followed, to help ensure no individuals are harmed during the construction phase of the project.
- 4.20 Best practice guidelines recommended that:
- Any excavations and trenches associated with construction are either covered at night or supplemented with a means of escape for any badgers that may fall into the excavation whilst foraging;
 - Any open pipes or conduits laid should be blocked off each night to prevent badgers from entering them;
 - If possible, construction work should only take place between dawn and dusk with no late evening work to reduce possible disturbance.
- 4.21 If these methods are followed, no significant residual impacts are predicted on badgers on site or within the local area. These steps will also help ensure no harm comes to other small mammals such as rabbits.

Nesting Birds

- 4.22 The line of trees and dense scrub habitats have the potential to support nesting birds, as evidenced by the presence of old nests within these habitats. All birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981 (as amended). Whilst none of these habitats are currently set to be impacted by the proposals, if any of these features are to be removed, this should be undertaken outside of the breeding bird season (March-September inclusive) or immediately after a nesting bird check by a suitably qualified ecologist. If active nests are identified, works in the vicinity of the nest must cease until the birds have fledged the nest. If this method is followed, no significant residual impacts are predicted on nesting birds within the local area.

Ecological Enhancements

- 4.23 Several enhancements can be made to the final development to incorporate features of ecological interest.
- 4.24 Additional roosting opportunities will be provided by hanging bat boxes on any of the buildings the site. Recommended bat boxes include hardwearing woodcrete boxes, such as those shown in Figure 7 below, or similar.

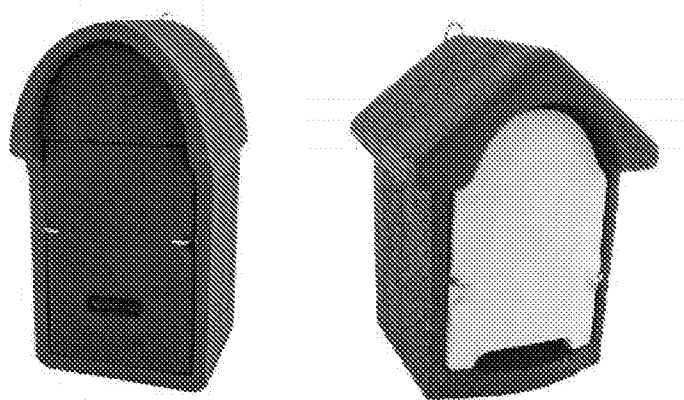


Figure 7: Examples of recommended bat boxes to be installed within suitable mature trees on site – a CJ Wildlife woodstone box (left) and a Vivara Pro woodstone box (right).

- 4.25 Boxes should be installed at least 3m from the ground and on south and west facing aspects and away from artificial lighting.
- 4.26 Additional bird nesting opportunity can be installed on the buildings on site. Again, hardwearing woodcrete boxes, or similar, are recommended. Figure 8 below gives examples of suitable bird boxes, of which these or similar, could be installed onto the brickwork of the house or into the trees. The box should be positioned on a north or east facing aspect and at least 2m above the ground if possible. These would cater for species such as house sparrows and wagtails. A total of two of these boxes is recommended.

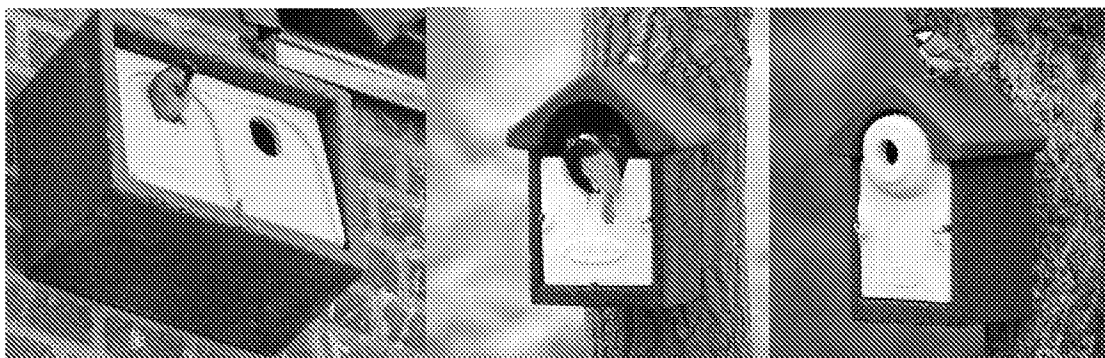


Figure 8: Examples of suitable bird boxes which could be installed on site – Vivara Pro WoodStone House Sparrow Nest Box (left), Vivara Pro Barcelona WoodStone Open Nest Box (centre) and Vivara Pro Seville 32mm WoodStone Nest Box (right)

5.0 Impact Assessment

- 5.1 This section of the report forms an EcIA (Ecological Impact Assessment) and is designed to quantify and evaluate the potential impacts of the development on habitats and species present on site or within the local area.

Methodology

- 5.2 The approach to this assessment accords with guidance presented within the CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM 2018). In essence, an EcIA assesses the activities associated with a proposed scheme that are likely to generate changes within identified zone of influences, on identified ecological features and receptors. The proposals are subsequently reviewed and mitigation and compensation measures are outlined which help to reduce negative impacts.
- 5.3 The zone of influence for the development is defined as:
- The project red line, for effects on habitats and species;
 - Adjacent habitat, considered by species, for mobile species with territories or foraging ranges that may overlap the site.
- 5.4 The types of features considered in the assessment of effects, to meet legislative and policy requirements, are:
- Designated sites (European, national and local),
 - Protected species,
 - Habitats and species of principal importance (Section 41 list),

- Hedgerows and woodland, where not of principal importance, and
- Habitats, where not of principal importance, that may function as wildlife corridors or steppingstones.

Baseline Ecological Conditions

5.5 The site contains the following important ecological features:

- SSSI impact risk zone.

5.6 In addition, the site is considered to have **potential** to support the following important ecological features:

- Badgers,
- Commuting and foraging bats, and
- Nesting birds.

Impact Assessment and Mitigation

Table 3: Assessment of effects from the proposal after mitigation and compensation

Feature	Scale of Importance	Mitigation/Compensation Required	Residual Effect
SSSI impact risk zone	National	None required	Not Significant
Commuting and foraging bats	Local	Sensitive lighting scheme and the retention, where possible, of most of the trees and scrub on site that act as potential foraging and commuting routes.	Not Significant
Badgers	Local	Precautionary method of works during construction.	Not Significant
Nesting Birds	Local	Mitigating direct harm to nests by removal of any trees or suitable habitat outside of nesting bird season or after a check by a suitably qualified ecologist.	Not Significant

		Enhancements in the form of the installation of bird boxes.	
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Cumulative impacts

- 5.7 The scheme should also be considered in conjunction with other surrounding proposals in order to determine cumulative impacts on ecological features. However, due to the limited size and scope of the proposals, the creation of a single new structure, it was considered that the proposals would lead to negligible impacts within the red line boundary as well as the surrounding area. As such, no significant cumulative impacts are predicted to occur as a result of the proposals.

6.0 Conclusions

- 6.1 The site does not lie within or adjacent to any designated sites, with no internationally designated areas within a 2km radius, statutory areas within a 2km radius or non-statutory designated areas within a 1km radius of the site.
- 6.2 The site is however, within a SSSI impact risk zone. Within this zone, all proposals including pylons and overhead cables, large non-residential developments outside existing settlements/urban areas where footprint exceeds 1ha, residential developments of 50 or more houses, livestock and poultry units with floorspace over 500m², slurry lagoons and digested stores over 750m², manure stores over 3500t, general combustion processes over 50MW and landfill. As the proposals do not fall within the categories listed, no significant adverse impacts on the surrounding designated sites are predicted.
- 6.3 All of the buildings and trees on site were considered to support 'negligible' roosting bat potential, and as such no further bat roosting surveys are considered to be required. Furthermore, due to the small-scale impact and nature of the proposals, which retain all of the boundary features, no transect surveys were considered to be required either. However, a sensitive lighting scheme, should be conditioned if there is to be a change in lighting, with special consideration on the boundary tree lines, and enhancements for bats have also been recommended.

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- 6.4 Birds may use the tree lines and areas of scrub over the site to nest within, as evidenced by the old nests seen within these habitats. Any works to trees or scrub should therefore avoid the bird nesting season (March – September inclusive) or a nesting bird check by a qualified ecologist will be required.
- 6.5 Whilst no evidence of badgers was identified within or around the site where access was possible, it is considered possible that they use the site for commuting purposes. As such, precautionary methods of work have been outlined to avoid harming any individuals that may use the site.
- 6.6 Owing to a lack of suitable habitat and/or connectivity, the site is not considered to be constrained by other protected/notable species such as otters, reptiles, GCN, dormice or water voles.

7.0 References

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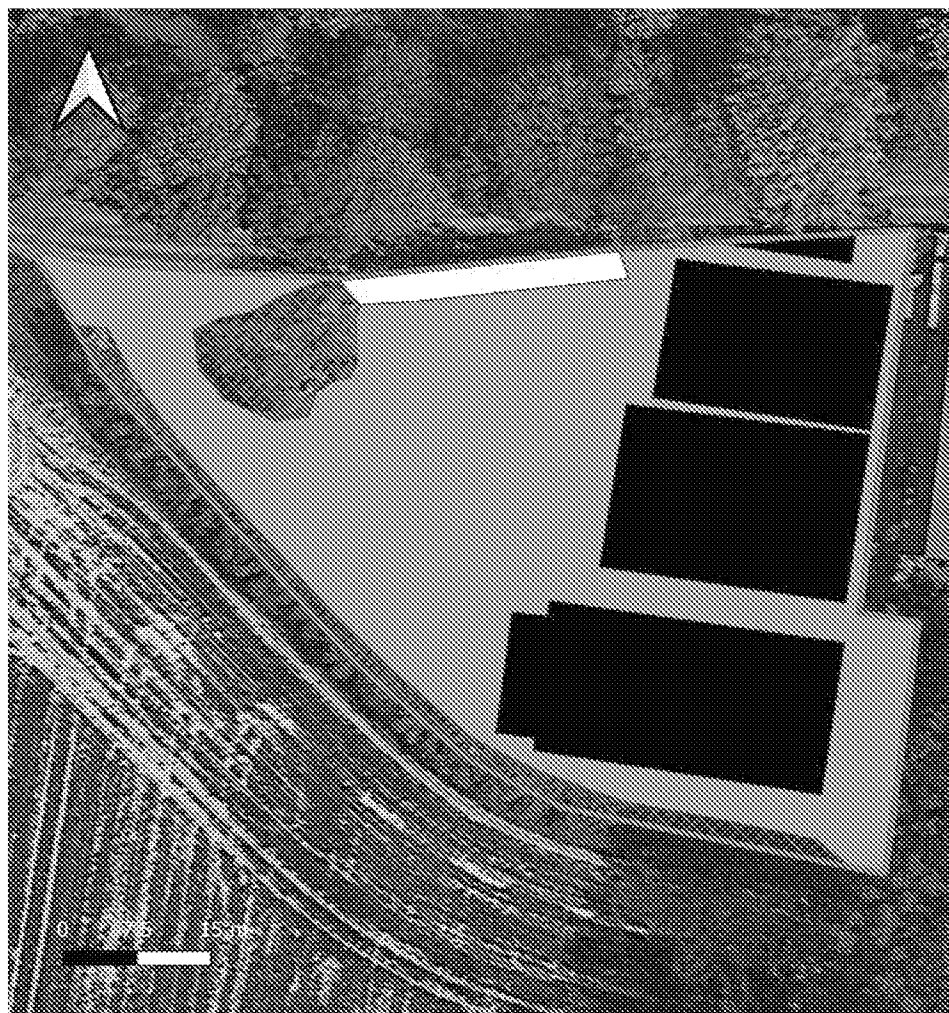
Internet resources:

Arun District Council: <https://www.arun.gov.uk/>

Google Maps: www.google.co.uk/maps

Magic Interactive Map: www.magic.gov.uk

Appendix 1: Phase 1 Habitat Map



Land at Wicks Farm South, Arun
Phase 1 Habitat Map

Key

- RLB
- - - Line of Trees
- Buildings
- ▨ Hardstanding
- Bare Earth
- ▩ Dense Scrub

Site: Land at Wicks Farm South, Arun
Client: John Hall
Surveyors: KM + CC
Survey Date: 10/01/2022

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Appendix 2: Photos

Photograph 1: Photo of the area of scrub on site.



Photograph 2: Photo of the bare earth present on site.



Photograph 3: Photo of a section of the scrub along the southern boundary.



Photograph 4: Photo of the smaller line of trees along the northern boundary.



Photograph 5: Photo showing the dominance of hardstanding over the site.



Photograph 6: Photo of the large metal warehouses over the site.



Photograph 7: Photo of the small brick storage building along part of the northern boundary of the site.



Photograph 8: Photo of the pond located to the east of the site.



Appendix 3: Species List

DAFOR Scale	Meaning	Percentage Cover of habitat
D	Dominant	51-100%
A	Abundant	31-50%
aF	Frequent	16-30%
O	Occasional	6-15%
R	Rare	1-5%

Common name	Latin name	DAFOR score
Line of trees		
Hornbeam	<i>Carpinus betulus</i>	D
Eucalyptus	<i>Eucalyptus globulus</i>	R
Cherry laurel	<i>Prunus laurocerasus</i>	R
Dense scrub		
Dog rose	<i>Rosa canina</i>	A
Hawthorn	<i>Crataegus monogyna</i>	A
False oat grass	<i>Arrhenatherum elatius</i>	F
Beech	<i>Fagus sylvatica</i>	F
Cherry laurel	<i>Prunus laurocerasus</i>	O
Common vetch	<i>Vicia sativa</i>	O
Red fescue	<i>Festuca rubra</i>	O
Ivy	<i>Hedera helix</i>	O
Yorkshire fog	<i>Holcus lanatus</i>	O
Ribwort plantain	<i>Plantago lanceolata</i>	O
Chickweed	<i>Stellaria media</i>	O
Spear thistle	<i>Cirsium vulgare</i>	R
Young holly	<i>Ilex aquifolium</i>	R
Dandelion	<i>Taraxacum officinale</i>	R

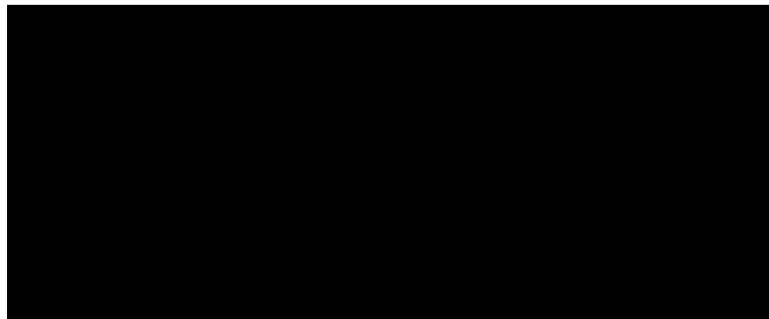
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