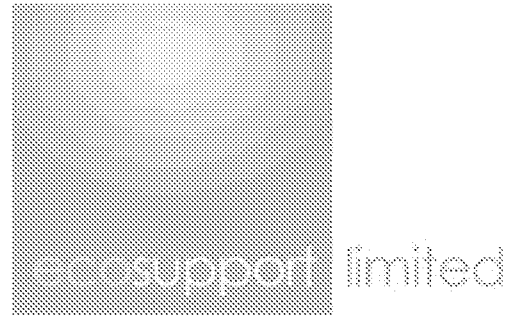


ecological support,
management and solutions



**The Former Kings Beach Hotel
Pagham
PO21 4TW**

Phase I Survey

Report produced by

Tristanna Boxall BSc (Hons)

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1.0 INTRODUCTION

1.1 Brief

Ecosupport Ltd was commissioned by Crescent Land Limited to conduct a Phase I Survey of the area of land associated with the former Kings Beach Hotel. This document has been prepared in order to ensure the proposed development fully complies with nature conservation legislation and policy where applicable.

This survey takes no account of seasonal variation and fluctuations in the presence of any species noted that might take up residence following this report. Lack of signs of a particular species does not confirm its absence, merely that there was no indication of its presence during the time of survey.

Data contained within this report will be valid for 24 months, after which the advice of a Suitably Qualified Ecologist must be sought as surveys may require updating if the proposed works have not been undertaken.

1.2 Aim

A Phase I Habitat Survey is the first step in assessing the potential ecological effects (or lack of) of a proposed development, and determines whether or not (and which) Phase II Protected Species Surveys are required. The objectives of this survey were as follows:

- Identify current land use and distribution of broad habitat types including plant communities of ecological importance,
- Identify and classify any priority habitats,
- Assess the ecological value of the site
- Identify any signs of protected species and potential features that may support them
- Identify all relevant legislation and policy
- Make recommendations for further survey work as appropriate
- Make recommendations for appropriate enhancements

1.3 Site Location

The site is located to the north of the former Kings Beach Hotel, which is now a Co-op, in Pagham (PO21 4TW) (Grid Reference SZ 89005 97453). The site is bound to the northwest and west by residential development, and associated garden space, with the neighbouring Co-op shop, and associated car park, to the south and southeast and finally commercial development to the northeast. The surrounding landscape dominated by residential development due to the sites location within Pagham along further afield agricultural land lies to the east with the coast to the west.

Figure 1. Location of the site (Google Maps, 2017).



2.0 LEGISLATION & POLICY

One of the aims of this report is to demonstrate that the proposed development complies with relevant Planning Policy and nature conservation legislation. This section details the policy and legislation with which the development would need to comply.

2.1 Legislation

2.1.1 The Conservation of Habitats and Species Regulations (2010)

The Conservation of Habitats and Species Regulations (2010) transposes the EU Habitats Directive (Council Directive 92/43/EEC) into UK domestic law. It provides protection for sites and species deemed to be of conservation importance across Europe. It is an offence to deliberately capture, kill or injure species listed in Schedule 2 or to damage or destroy their breeding sites or shelter. It is also illegal to deliberately disturb these species in such a way that is likely to significantly impact on the local distribution or abundance or affect their ability to survive, breed and rear or nurture their young.

2.1.2 The Wildlife and Countryside Act (1981) (as amended)

The Wildlife and Countryside Act (1991) (as amended) is the primary piece of legislation by which biodiversity is protected within the UK. Protected fauna and flora are listed under Schedules 1, 5 and 8 of the Act. They include all species of bats, making it an offence to intentionally or recklessly disturb any bat whilst it is occupying a roost to intentionally or recklessly obstruct access to a bat roost. Barn Owls are also protected under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to kill, injure or take a wild barn owl and take or destroy their eggs. It is also illegal to disturb or check a nest site during the breeding months of April to October.

2.2 Policy

The development would seek to comply with relevant Planning Policy at a local, regional and national level.

2.2.1 National Planning Policy and Framework (2012)

This sets out the Government's vision for biodiversity in England. It states that the planning system should maintain, enhance, restore or add to biodiversity and geological conservation interests. Key principles of the framework include the creation, protection, enhancement and management of networks of biodiversity, the preservation, restoration and recreation of priority habitats and ecological networks and the recovery of priority species populations, including sections on legally protected species.

2.2.2 Arun District Council

Within the Arun District Local Plan 2003 adopted in April 2003 policy GEN29 'Nature Conservation Across the District' states that because biodiversity is an important resource, found throughout the District Arun District Council development will only be permitted on sites which contain semi-natural habitats, features of nature conservation interest, or within wildlife corridors, where these can be largely retained and sympathetically incorporated into the scheme. Legal agreements may be used to offset the loss of, or impact on, any nature conservation resource present on the site prior to development. This is to protect undesignated sites from the harmful effects of development, in order to retain their value as a biodiversity resource.

Arun's Local Plan (2011 – 2031) strategic objective for the Natural Environment is 'to plan for climate change and work in harmony with the environment to conserve natural resources and increase biodiversity.'

'Natural environment' broadly refers to living things in all their diversity: wildlife, rivers and streams, lakes and seas, urban green space and open countryside, forests and farmed land. As such the Natural Environment comprises of both biodiversity and Natural Heritage which are inextricably linked. Biodiversity is a term used to describe the variety of life on earth, it includes plants, animals, invisible micro-organisms and bacteria which, together, interact in complex ways with the environment to create living ecosystems. Natural heritage refers to the many types of contact people have with nature in both town and countryside, the natural environment is a result of thousands of years of interaction between people and nature. The Natural environment is fundamental to survival: food, fuel, air and water, together with the natural systems that cycle our water, clean out pollutants, produce healthy soil, protect us from floods and regulate our climate.

The NPPF states that to minimise the impacts on biodiversity and geodiversity local planning authorities must identify and map components of the local ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them, along with areas identified by local partnerships for habitat restoration or creation.

Policy ENV SP1 'Natural Environment' states Arun District Council will encourage and promote the conservation 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. Where possible it shall also promote the creation of new areas for habitats and species.

3.0 METHODOLOGY

3.1 Desk Based Search

A search was undertaken using online resources to identify any nearby designated sites.

3.2 Phase I Habitat Survey

The initial walk over survey was carried out by Tristanna Cornwell BSc (Hons) (Natural England Class Level 2 Bat and Class Level 1 Great Crested Newt License Holder) of ecosupport Ltd on the 14th December 2017. This incorporated a visual assessment of the site and the surrounding landscape, loosely following the methodology outlined within the Joint Nature Conservation Committees (JNCC) *Phase I habitat survey handbook* (2003). The habitats present were described, paying particular attention to their potential to support protected species.

3.3 Assessment of Building to Support Roosting Bats

An assessment of the buildings was undertaken to determine the likelihood of roosting bats being present. The externals were examined, using 8 x 42 Avian Trekker binoculars and a high-powered torch, for any suitable features which bats may use to enter the internals or an external roost and also to search for signs of (i.e. droppings, feeding remains) and/or bats themselves. The internals was assessed by gaining access in to one of the garages. The survey was carried out in accordance with *Bat Surveys for Professional Ecologists; Good Practice Guidelines* 3rd edition published by the Bat Conservation Trust (Collins, 2016).

3.4 Assessment of Trees to Support Roosting Bats

An assessment of the trees on site was made to determine the likelihood of supporting roosting bats. This involved using close-focus Avian Trekker binoculars and a high-powered torch to inspect the tree from the ground looking for features indicative of bat roosts (**Table 1**). The survey was carried out in accordance with *Bat Surveys for Professional Ecologists; Good Practice Guidelines* 3rd edition published by the Bat Conservation Trust (Collins, 2016).

Table 1. Trees features commonly used by bats and field signs that may indicate bat presence (BCT, 2012).

Features of trees used as bat roosts	Signs indicating possible use by bats
Natural holes.	Tiny scratches around entry point.
Woodpecker holes.	Staining around entry point.
Cracks/splits in major limbs.	Bat droppings in, around or below entrance.
Loose bark.	Audible squeaking at dusk or in warm weather.
Hollows/cavities.	Flies around entry point.
Dense epicormic growth (bats may roost within it).	Distinctive smell of bats.
Bird and bat boxes.	Smoothing of surfaces around cavity.

4.0 RESULTS

4.1 Desk Based Search

The site is located 226m from Pagham Harbour (Ramsar, Sites of Special Scientific Interest (SSSI) and Special Protection Area (SPA)). This site comprises an extensive area of salt-marsh and tidal mudflats with surrounding habitats including shingle, open water, reed swamp and wet permanent grassland. It is of national importance for wintering wildfowl and waders and also for breeding birds both within the Harbour and the surrounding grazing pasture. The site supports nationally important communities of flora and invertebrates. The lower part of the salt-marsh is dominated by the hybrid Common Cord-grass (*Spartina anglic*) with patches of the Glassworts (*Salicornia Sp.*). Above this zone Sea-purslane (*Halimione portulacoides*) covers large areas with other species such as Sea Aster (*Aster tripolium*) in the periphery. The presence of breeding Little Tern (*Sterna albifrons*) in summer, as well as wintering concentrations of Ruff (*Philomachus pugnax*) and Pintail (*Anas acuta*) mean that the site qualifies as a SPA.

4.2 Phase I Habitat Survey

The following habitat types and dominant species were identified on site:

Building: On site a row of red brick garages were present (**Figure 2**). The low gradient roof was constructed of wooden sarking covered in bitumen roofing felt. The fascia was also of wood construction. These were considered to be in a poor state of repair (i.e. collapsed roof and cracks in brickwork indicative of compromised structural integrity). On the northern end of the garages a wooden bergola has been colonised by creepers and Rose (*Rosa Sp.*).

Figure 2. Row of garages on site.



Ecosupport Ltd., Office A1, Knowle Village Business Park, Mayles Lane, Knowle PO17 5DY

Improved Grassland: The site is dominated by improved grassland of varying levels of management (an example of one of the areas in show in **Figure 3**). Species recorded included Creeping Buttercup (*Ranunculus repens*), Ribwort Plantain (*Plantago lanceolata*), Clover (*Trifolium Sp.*), Willowherb (*Epilobium Sp.*), Dovesfoot Cranesbill (*Geranium molle*), Common Nettle (*Urtica dioica*), Dock (*Rumex Sp*), Dandelion (*Taraxacum agg.*), Daisy (*Bellis perennis*), Yarrow (*Achillea millefolium*), Ribwort Plantain (*Plantago lanceolata*), White Dead Nettle (*Lamium album*), Mallow (*Malva sylvestris*), Cow Parsley (*Anthriscus sylvestris*), Ragwort (*Senecio jacobaea*) and Canadian Fleabane (*Conyza canadensis*) along with common grass species.

Figure 3. Grassland in the southwestern corner.



Scattered Trees: A number of scattered trees were recorded on site including Willow (*Salix Sp.*) and Cypress.

Scrub: Areas of scrub around the periphery of the site have begun to encroach, with some areas now engulfed in relatively dense Bramble (*Rubus fruticosus*) coverage (**Figure 4**).

Figure 4. Bramble on site.



Ornamental Shrubs: Along with Buddleia (*Buddleja davidii*), which has established around the site, to the rear of the garages a number of ornamental shrubs were recorded.

Hardstanding: Within the site there are areas of concrete and tarmac hardstanding.

Animal Trails: A number of animal trails were recorded within the site boundary. These were considered most likely to be that of domestic cats as no evidence of protected and/or notable species (i.e. Badger and Hedgehog) was recorded.

4.3 Assessment of Building to Support Roosting Bats

Externally the initial view highlighted potential for bats behind the fascia however, where applicable, the gaps were found to be covered by an accumulation of cobwebs thus suggesting there is no access into these areas.

The row of garages were considered to be in a dilapidated state, and as a result potential access points were present (i.e. rotten roofing has resulted in collapsed areas and gaps around the doors). It is however considered highly unlikely roosting bats utilise the garage within which access was possible. This is due to high light levels within the internals and a lack of thermal mass providing stable temperatures given the single skin nature of the structure. The relatively new construction (i.e. modern timber structure) means there is a lack of crevice opportunities thus exposing potential bats to fluctuating temperatures and adverse weather. This is supported by a lack of

evidence of bats. Having said this it was not possible to gain access into the internals of the other garages on site.

4.4 Assessment of Trees to Support Roosting Bats

No features considered suitable for roosting bats were identified on any of the trees on site.

4.5 Limitations

The species list provided is not considered to be an exhaustive list instead a record of those identified during the Phase I survey. Similarly, this survey does not constitute a full site assessment for invasive species, such as Japanese Knotweed (*Fallopia japonica*), but no such species were found during the time on site.

5.0 EVALUATION

5.1 Desk Based Search

The site falls within Zone A of the Pagham Harbour policy (ENV DM2) from the emerging Arun Local Plan 2011-2031. However it is not considered that the site is suitable for wintering wildfowl and waders; qualifying features of the protected site. They prefer large open sites where they have clear sight-lines and short, lush grass for grazing or areas of mudflats (King, 2010). Likewise as waders are gregarious species, they feed and roost together in large numbers and due to the limited size of the site, it is unlikely it will support such numbers. Although roosting sites tend to be close the coast, they are usually situated away from sources of disturbance, such as that that is present adjacent to the site (King, 2010).

5.2 Phase I Survey

Buildings: Please see below evaluation of buildings with regard to roosting bats. It is considered that given the gaps around the doors there is potential to support nesting birds.

Grassland: Due to the previous amenity nature of the grassland areas, these have previously been subject to regular management however due to a lack of management in recent times, some areas have become suitable for reptiles as reptiles require diverse vegetation structure where scrub and grass tussocks are present (Edgar et al., 2010). It is also considered likely that foraging bats will utilise the grassland areas.

Scattered Trees: Although it is considered highly unlikely roosting bats would utilise the trees on site, they do provide nesting bird habitat.

Scrub: The dense areas of scrub not only provide foraging resources for a variety of wildlife, they also provide nesting bird opportunities.

Ornamental Shrubs: Due to the maturity of the shrubs on site, they also provide opportunities for nesting birds.

Hardstanding: This aspect of the site is considered to be of negligible ecological value.

Animal Trails: A number of animal trails were recorded within the site boundary however due to a lack of evidence of protected species on site, it is considered likely these are a result of domestic cats on site.

5.3 Assessment of Building to Support Roosting Bats

Based on the internal assessment of the first garage it is considered likely the buildings have negligible potential to support roosting bats however given the lack of internal

investigation on the other garages and clear potential access these cannot be discounted.

5.4 Assessment of Trees to Support Roosting Bats

As no features considered suitable for roosting bats were identified on any of the trees on site it is considered highly unlikely roosting bats would be impacted by their removal.

6.0 IMPACTS IN THE ABSENCE OF MITIGATION

This section details the potential impacts of the proposals to all ecological features identified in the absence of avoidance, mitigation and compensation measure. The potential impacts are identified in reference to the proposed activities associated with the scheme. In many cases, if a potential negative impact is identified at this stage, measures can be implemented to ensure that no actual negative impacts occur. Such measures are detailed in **Section 7** of this report.

Pagham Harbour

It is considered highly unlikely proposals will impact directly upon the designated site and therefore negatively impact upon the qualifying features as it is separated via roads and housing. It is therefore considered unlikely noise, water and/or air pollution generated during the construction phase will reach the Harbour. Therefore during construction there will likely be negligible impacts.

The proposals will see a small increase in residents to the local area and therefore potential increased recreational pressure however given the scale of these proposals (i.e. introduction of three homes) it is considered this will have a low negative impact at a local level as opposed to regional and/or international level associated with the statutory protection of SPAs.

Amenity Grassland

In its current state the grassland on site is considered suitable to support reptiles therefore the clearance of vegetation and stripping of topsoil has the potential to negatively impact upon reptiles. This has the potential for a negative impact at a site level.

The loss of grassland habitat, or altering conditions on site (i.e. increasing artificial light levels) will likely impact on foraging and/or commuting bats at a site level.

Scrub

If clearance takes place during bird nesting season (March – August) this will likely have a negative impact at site level. The removal of this vegetation will also reduce foraging resources.

Shrubs

If clearance takes place during bird nesting season (March – August) this will likely have a negative impact at site level.

Scattered Trees

If clearance takes place during bird nesting season (March – August) this will likely have a negative impact at site level.

7.0 RECOMMENDATIONS AND REQUIREMENTS

Pagham Harbour: A contribution of £871 per unit will be secured in order to make the proposed development acceptable in planning terms. This will contribute towards strategic access management measures and it is therefore considered will alleviate the impact of a low increase in recreational pressure associated with this development. It is also recommended that an information leaflet be produced which will be passed on to the new inhabitants. This will notify them of the conservation status of Pagham Harbour and inform them of the disturbances caused by recreational pressure, particularly dog walking.

Bats: Based on the internal assessment of the first garage it is considered likely the buildings have negligible potential to support roosting bats however given the lack of internal investigation on the other garages and clear potential access these cannot be discounted. A follow up visit, gaining access may be able to provide further confidence that roosting bats are unlikely to be present. If this is not the case, further Phase II surveys may be recommended.

Due to their transient use of roosts and opportunistic exploitation of features suitable to support roosts, there is a possibility that bats may take up residence after the execution of ecological survey work. If prior to, or during works, a bat is found a Suitably Qualified Ecologist should be consulted immediately.

To comply with national and local policy, one artificial bat roosting feature should be incorporated into the fabric of each new building, such as the IBSTOCK Bat Box C. This will provide roosting opportunities for bats and thereby enhance the ecological value of the site. The feature should be located at the greatest possible height, away from artificial lighting and as close to the eaves of the buildings as possible (ensuring a minimum of a three meter clearance to the floor).

It is considered likely that commuting and foraging bats will utilize the site. Though several bat species can take advantage of artificial lighting systems for foraging, feeding off the insects they attract, other species avoid them as foraging within an illuminated area increases the risk of predation. If lighting is intensive and widespread,

it can deter some bats from utilising areas and in some instances can act as a barrier across traditional commuting lines. Therefore if lighting is required this should be sensor-controlled.

Reptiles: As this site is currently considered suitable for reptiles it is recommended that the vegetation height be gradually reduced, starting in March/April. This will involve a hand held strimmer cutting vegetation to 30cm (working from the inside of the site towards the boundaries), then the following day to 15cm and finally down to ground level. The vegetation will then be maintained at a low level. These methods will encourage any animals to move passively away from the area of impact. Therefore ensuring they are not detrimentally impacted during works.

Nesting Birds: It is recommended that two 1B Schwegler Nest Boxes with 32mm entrance hole should be erected within trees on site to attract a variety of birds (i.e. Great, Blue, Marsh, Coal and Crested Tit, Redstart, Nuthatch, Collared and Pied Flycatcher, Wryneck, Tree and House Sparrow).

Native Planting: In line with the CIEEM guidance (2012) and to comply with national and local policy, any proposed planting should favour local, native species over non-natives and ornamentals wherever possible and aim for at least a 70:30 ratio in favour of native species. Evening-scented species will enhance the site's potential to support foraging bats. Where possible shrub species should comprise those that produce berries and nectar to provide feeding opportunities for a range of wildlife. For example:

Spindle (*Euonymus europaeus*)
Elm (*Ulmus minor*)
Elder (*Sambucus nigra*)
Wild privet (*Ligustrum vulgare*)
Guelder-rose (*viburnum opulus*)
Field maple (*Acer campestre*)
Crab Apple (*Malus sylvestris*)
Hazel (*Corylus avellana*)
Honeysuckle (*Lonicera periclymenum*)
Dog-rose (*Rosa conina*)
Rowan (*Sorbus aucuparia*)
Holly (*Ilex aquifolium*)

8.0 CONCLUSION

In general the site was considered to be of low ecological value. Where potential impacts have been identified appropriate mitigation / recommendations have been

made to significantly reduce, if not remove entirely, the impact. Habitat manipulation followed by sensitive working practices will encourage any potential reptiles away from the area of impact. Similarly set timeframes with regard to nesting birds will ensure they are not negatively impacted. Finally, further consideration needs to be taken with regard for the potential for roosting bats. A number of ecological enhancements have also been recommended as to enhance the sites ecological value and in turn contribute towards local biodiversity as oppose to detracting from it.

9.0 REFERENCES

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