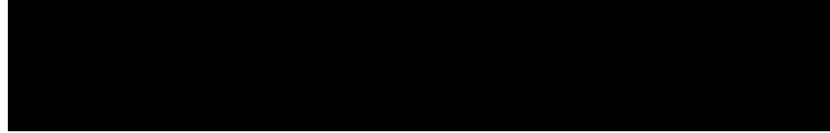


SPECIES

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**LAND AT RIVERSIDE INDUSTRIAL
ESTATE, LITTLEHAMPTON,
WEST SUSSEX
BIODIVERSITY SURVEY**

FINAL REPORT

JANUARY, 2021

LAND AT RIVERSIDE INDUSTRIAL ESTATE, LITTLEHAMPTON
BIODIVERSITY SURVEY

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LAND AT RIVERSIDE INDUSTRIAL ESTATE, LITTLEHAMPTON

BIODIVERSITY SURVEY

SUMMARY

Species Ecological Consultancy was instructed by Pegasus Planning on behalf of L & C Commercial Limited to undertake a Biodiversity Survey of land at Riverside Industrial Estate, Littlehampton, West Sussex. It is proposed to erect an additional industrial unit on the site. The Proposal Site itself largely comprises hard standing and basic industrial unit buildings but there is a vegetation strip along the boundary of the site where there is a ditch and this vegetation is contiguous with the embankment for Bridge Road, off-site. The site does not contain any sites of designated ecological value but there is a designated site of local importance nearby.

The industrial estate site is of limited ecological value but a number of protected species may be present within the boundary of the site including common reptiles, breeding birds and bats. Breeding birds are also using the roof of the industrial unit immediately adjacent to the Site.

Given the potential for impacts upon features of ecological value it will be necessary to undertake some targeted protected species surveys on site, and adjacent to the site, in order to fully evaluate the site and meet best practice. It is recommended that these surveys are undertaken.

LAND AT RIVERSIDE INDUSTRIAL ESTATE, LITTLEHAMPTON

BIODIVERSITY SURVEY

1. INTRODUCTION

Overview

- 1.1 Species Ecological Consultancy was instructed by Pegasus Planning on behalf of L & C Commercial Limited to undertake an Biodiversity Survey of land at Riverside Industrial Estate, Littlehampton, West Sussex. It is proposed to erect an additional industrial unit on the site.
- 1.2 The aim of this survey was to undertake a walkover survey to broadly assess the ecological features present, to consider whether important habitats are on site and whether protected species may be present. From this survey recommendations can be made as to whether further ecological surveys are necessary to inform the site proposals.

Site Location

- 1.3 The site forms part of an industrial estate at Bridge Road (B2187), Littlehampton, West Sussex and thus largely comprises hard standing that is currently used for carparking by the existing businesses present. However, there is a mature vegetation strip present along the boundary of the site that may be impacted by the scheme. The strip is also connected to vegetation off-site that lines the embankment up to Bridge Road and contains a ditch. The industrial estate is structured around an internal, square access road and the site lies to the north west corner. The River Arun runs along the southern boundary of the industrial estate, nearby.
- 1.4 The land on site is generally level and off-site to the north the land rises to form the embankment to Bridge Road which runs between the roundabout with the A259, which crosses the River Arun to the south, and Broad Piece.

Policy and Legislation

- 1.5 Nature conservation in the UK is protected by legislation, principally under the Habitats Regulations: The Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act, 1981 (as amended). Further information is provided in **Appendix 1**. The Government's stance on biodiversity is set out in The National Planning Policy Framework (2018) and includes how biodiversity policy is expected to be applied in order to achieve sustainable development. The environment is considered a core component of sustainable development and the planning system should contribute to and enhance the natural and local environment by:
 - protecting and enhancing valued landscapes, sites of biodiversity or geological value and

soils;

- recognising the wider benefits of ecosystem services;
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- preventing both new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.

1.6 To protect and enhance biodiversity and geodiversity, plans should:

- distinguish between the hierarchy of international, national and locally designated sites, allocate land with the least environmental or amenity value, where consistent with other policies; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries;
- identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

2. METHODOLOGY

Zone of Influence

- 2.1 The Institute of Ecology and Environmental Management's (IEEM) Guidelines for Ecological Impact Assessment in the UK and Ireland (2018) require consideration of the Zone of Influence of any development proposals rather than just a defined 'site' as ecological impacts can extend offsite. The guidelines refer to '*...the areas/(ecological) resources that may be affected by the biophysical changes caused by a development, both in the construction and operational phases*'. Thus this Biodiversity Survey considers ecological features that may be affected off-site as well as features that may only be affected at the site level.

Desk-top Survey

- 2.2 A search was undertaken to gather any known ecological information with respect to the Zone of Influence. Internet resources such as MAGIC and NBN were consulted and details of any statutorily designated sites were obtained from Natural England. A Biological Records Search was undertaken with Sussex Biodiversity Records Centre. Online aerial mapping was also consulted in evaluating the survey area.

Walkover Survey

- 2.3 A walkover survey of the site was undertaken on 25th June, 2020 by Dr Matthew J. Clarke of Species Ecological Consultancy in order to assess the ecological value of the site. The likely presence of protected species and habitats was considered in order to inform the proposals. Features listed below were considered.

Vegetation

- 2.4 The main habitat types and features present within the study area were assessed and noted along with the presence of any notable species and habitat indicators such as unimproved grassland or ancient woodland indicator species. A preliminary assessment of the structure, quality and management was also made.

Mammals

Badgers

- 2.5 An assessment of the survey area was made for the presence of badgers and for habitat suitable to support this species. This includes a preliminary search for setts, latrines, footprints and well-marked routeways across the site. Suitable habitats include woodland, hedgerbanks and grassland. Any features of value recorded were mapped.

Bats

- 2.6 The presence and quality of habitat suitable for roosting by bats within the survey area was assessed. This included any buildings, trees or underground structures present and an assessment of the habitat for its potential as bat foraging and commuting habitat.

Amphibians

- 2.7 The presence of amphibians was considered and an assessment of the suitability of the habitats present for amphibians made. The survey area was searched for waterbodies and any potential refuge sites for amphibians checked where possible.

Reptiles

- 2.8 Habitat present suitable for reptiles was noted, mapped and its quality assessed. This includes areas used for foraging, basking and breeding such as longer, tussocky grassland, waterbodies, banks, rubble piles and compost heaps. Any reptiles seen on site were also recorded.

Birds

- 2.9 Any birds seen on site were recorded and an assessment made of the value of the habitats on site to support birds.

Invertebrates

- 2.10 An assessment of the habitats within the survey area for their suitability to support invertebrates was made. Any readily identifiable invertebrates present were recorded.

3. RESULTS AND EVALUATION

Desk-top Search

- 3.1 The site does not hold any statutory nature conservation designations but there are non-statutory designated sites within the Zone of Influence. These are as follows:

Local Wildlife Sites

Ar06 - Littlehampton Golf Course & Atherington Beach

- 3.2 Littlehampton Golf Course & Atherington Beach is a Local Wildlife Site (LWS) of County value for nature conservation which lies approximately 450m to the north of the Site. This LWS is considered to hold flora and fauna of special interest and was selected by a panel of local nature conservation organisations. The site comprises calcareous grassland, a ditch and a shingle beach. Littlehampton Golf Course has a species rich turf and the golf links includes an area of dry dune grassland which is adjacent to the sand dune ecosystem of Climping Beach SSSI. The site also includes an area of vegetated shingle beach, a nationally uncommon habitat. The citation sheet for this site is included at **Appendix 2**.
- 3.3 It is considered that this designated site will not be affected by the proposals.

Designated Road Verge

A259 Eldon Way Bridge Road Littlehampton

- 3.4 Designated Road Verges (DRVs) are areas of roadside verge that have been designated for their special wildlife interest. They can hold spectacular displays of wild flowers, including rare orchids and other plant species indicative of old meadows, and can be of great importance to invertebrates and fungi. There is no statutory protection for road verges but they can be found within both non-statutory and statutory designations. DRVs in West Sussex are identified by short oak posts with red discs.
- 3.5 This designated site will not be directly affected by the proposals and it is considered as long as measures are taken to control any dust or other pollution from the construction of the scheme, that indirect impacts upon this designated site will be unlikely to occur.

Walkover Survey

Site Overview

- 3.6 The proposals site comprises an area of concrete hardstanding that is currently used for carparking by the industrial units nearby (**Photos 1 & 2**). The site also includes part of a mature vegetation strip along the northern boundary of the industrial estate that includes mature trees and scrub habitat. Though there are no buildings on site there is an industrial unit – Unit H, part of the wider industrial estate, that stands adjacent, and very near to, the eastern boundary of the site. Bridge Road, the B2187, runs roughly east-west along the northern boundary of the industrial estate and the River Arun runs along the southern edge, off-site. Part of the vegetated boundary will be directly affected by the scheme.

Habitat Survey

- 3.7 The habitats present within or immediately bordering the proposals site include:

- Buildings;
- Fences;
- Hardstanding;
- Scrub and ephemeral habitats;
- Broadleaved trees.

Buildings

- 3.8 There are no buildings on the proposals site but an industrial estate unit – Unit H, stands very close to the eastern boundary. This building is built of part brick and part metal sheet cladding with a metal sheet roof (**Photo 2**). The building will not be directly impacted by the scheme.

Walls and Fences

- 3.9 The site is not enclosed by fencing but there is a chain-link fence and concrete posts along the northern boundary of the industrial estate within the vegetation strip (**Photo 5**). This fence becomes a concrete panel wall in close proximity to the adjacent industrial unit.

Hard-standing

- 3.10 The majority of the site comprises concrete hard-standing that is currently used for carparking.

Broadleaved trees

- 3.11 The majority of the site is devoid of vegetation but within the mature vegetated boundary strip there are some trees that are young to mature in age. These trees are mainly Sycamores *Acer pseudoplatanus*. Hawthorn *Crataegus monogyna* and Elder *Sambucus nigra* occur in the shrub layer. Off-site within the vegetation strip behind the Unit H building a young Sweet Chestnut *Castanea sativa* and Whitebeam *Sorbus aria* trees also occur that have been planted.

Ruderal Herbs and Scrub

- 3.12 Within the part of the site that is vegetated, the ground flora is dominated by Ivy *Hedera helix* with saplings of Sycamore *Acer pseudoplatanus* and some Elder (**Photo 5**). Horehound *Ballota nigra*, Hemp agrimony *Eupatorium cannabinum*, Common dandelion *Taraxacum officinale*, Mallow and Common nettle *Urtica dioica*, (**Photo 4**).

Embankments

- 3.13 An embankment runs up to Bridge Road to the north of the industrial estate, off-site but close by, within the mature vegetation strip (**Photo 6**). The embankment is dominated by young and medium aged trees, some of which have been planted, with a dense Ivy groundcover. The embankment vegetation is not directly affected by the proposals. Again the most dominant tree here is Sycamore with some Hawthorn and Norway maple *Acer platanoides* also occurs. At the eastern end of the embankment, the land levels out behind the unit buildings of the Industrial estate. Here there is some Pendulous sedge *Carex pendula*, Common ash *Fraxinus excelsior* seedlings and Bramble.

Protected Species

Vegetation

- 3.14 No records of notable plant species are held for the Site. Stinking camomile *Anthemis cotula*, a Sussex notable plant species, is known from the Designated Road Verge to the north east of the Site and within the wider Industrial Estate.
- 3.15 Sixty-four species of plants are recorded for the Zone of Influence of the scheme. A number of Sussex notable plants occur within this Zone: Common cudweed *Filago vulgaris*, Annual Beard-grass *Polypogon monspeliensis* and Corn parsley *Petroselinum segetum* are known from 500m to the north of the site. Common cudweed is on the red list of plant species in Great Britain. Sea heath *Frankenia laevis* occurs just to the south of the industrial estate by the River Arun and is also on the GB red plant list and a Sussex rare species. Long-spiked glasswort *Salicornia dolichostachya* is known from the southern bank of the River Arun to the south of the site and is also a Sussex rare species as is Smith's Pepperwort *Lepidium heterophyllum*, known from south of the site along the River Arun.

Field scabious *Knautia arvensis* is known from 1.2km to the south of the Site and is on the red plant list for England.

Mammals

Bats

Desk-top Survey

- 3.16 No bat records are held for the site. At least eight species of bat are however known from the Zone of Influence of the proposals, potentially eleven species. This includes Soprano Pipistrelle *Pipistrellus pygmaeus*, Common Pipistrelle *Pipistrellus pipistrellus*, Nathusius's Pipistrelle *Pipistrellus nathusii*, a Long-eared *Plecotus* species of bat, Brown Long-eared *Plecotus auritus*, Noctule *Nyctalus noctula*, a Myotis species *Myotis* species of bat, Whiskered/Brandt's *Myotis mystacinus/brandtii*, Daubenton's *Myotis daubentonii*, Serotine *Eptesicus serotinus* and Chiroptera 'a bat' records.
- 3.17 Records are held for Serotine, Brown Long-eared, Common Pipistrelle, Soprano Pipistrelle and Nathusius's Pipistrelle bats approximately 2km to the south of the site. A Whiskered/Brandt's bat and a Nathusius's Pipistrelle bat are known approximately 600m away to the south of the site. Noctule bat, Brown Long-eared and Common and Soprano Pipistrelle bat records are held for approximately 250m from the site to the north-west, along the River Arun near the roundabout with the A259. The majority of records are for individual or low numbers of bats.

Buildings

Unit H, Wider Industrial Estate

- 3.18 An industrial unit stands immediately adjacent to the east of the Site and is constructed of part red brick and corrugated metal sheet panelling and has a metal sheet roof. This building is likely to fluctuate more in temperature than a building of standard construction and this would likely limit its use by bats to the warmer parts of the year. Though the building looks largely sealed there are some gaps around the window frames and up into the sheets of metal panelling which may give bats access to the structure. However, bats are unable to grip to shiny surfaces and so it may not be possible for bats to access some of these gaps. It is therefore considered that this building is of Low potential for roosting bats. This building will not be directly affected by the scheme.

Trees

- 3.19 There are a few moderate-aged and mature trees on the site where the proposals extend into the mature vegetation strip. It is best practice that these trees be surveyed for their potential to support a bat roost in order to assess the impacts of the proposals upon protected species.

This survey was therefore undertaken. The results of the tree assessment for bat potential are given in **Table 1** below.

Table 1: Trees within the mature vegetation strip - bat potential survey.

Number	Tree Species	Feature of Potential Bat Interest	Value
1	Sycamore	Dense thin Ivy stems.	Precautionary Low.
2	Dead tree	Fallen dead wood with potential cavities but cannot see.	Precautionary Low.
3	Sycamore	Moderate thick Ivy – cannot see through.	Precautionary Low.
4	Sycamore	Moderate thick Ivy – cannot see through. Some stems moderate in size.	Precautionary Low.
5	Poplar	Two broken off limbs and die back of branches.	Precautionary Low.

- 3.20 Five trees were given a precautionary Low status as Ivy covered the tree and a clear view of bat potential features was not possible. It is understood that these trees are to be retained as part of the proposals but should these trees require removal as part of the scheme, they should be climbed and inspected with the assistance of a licensed bat worker immediately prior to removal. Should any bat evidence be found, all works must stop and further investigation undertaken.

Commuting/Foraging Habitat

- 3.21 The Site has a small part that is vegetated and this forms part of a larger area that lines the boundary of the industrial estate and almost encircles it. This area offers good foraging habitat for bats, though it is limited in size, and is connected to a wider area of habitats offsite, including the River Arun to the south. It is thus likely that bats will forage and commute along

the mature vegetation on site and the vegetated boundaries of the industrial estate. It is best practice that where suitable habitat for bats is potentially impacted by development, that bat activity surveys are undertaken to fully evaluate the impacts of the proposals upon protected species. It is recommended that these surveys are undertaken. As bat emergence/re-entry surveys are proposed it would be beneficial to also cover the trees with precautionary bat potential present as part of the same survey.

Bat Summary

- 3.22 Some medium-aged to mature trees are present on site and at the boundaries of the wider industrial estate and may offer bat roosting habitat. The adjacent industrial unit building has a low potential to support a bat roost. The mature vegetation around the boundaries also offers suitable foraging and commuting habitat for bat species. It is therefore best practice that further bat surveys are undertaken to assess whether any bat roosts are on site and whether any bats use the site for foraging or commuting along. These surveys include bat emergence/re-entry surveys and bat activity surveys. It is recommended that these surveys are undertaken. Best practice requires that surveys are undertaken between May and September and two surveys must be between May and August. One of the surveys must be a dawn survey.
- 3.23 Care should be taken as part of the proposals to not light the mature vegetated boundary of the industrial estate with external lighting and any external lighting should be cowelled downwards and facing away from these areas in order to prevent impacts on bats.

Badgers

Desk-top Survey

- 3.24 No badger records are held for the site.

Walkover Survey

- 3.25 No badger setts were recorded on the proposals Site itself but there are mammal paths present within the connected mature vegetation on the adjacent embankment for Bridge Road, off-site. It was not possible to specifically determine badger use of these paths. Some of these paths lead to gaps in the chain-link fencing which give access to the mature vegetation on site (**Photo 5**). Habitat suitable for badger setts is present on the road embankment for Bridge Road adjacent to the site.
- 3.26 The majority of the mature vegetation strip is to remain and hence commuting habitat for badgers will remain within the industrial estate.

Dormice

Biological Records Search

- 3.27 No records are held of Dormice within 2km of the proposals site.

Walkover Survey

- 3.28 The mature vegetated part of the Site does offer some mature vegetation that does offer some limited habitat potentially of sub-optimal value for Dormice. The habitat adjacent within the embankment is more suitable but is also limited in its structure, diversity and size. The dense shade present will also limit the flowering and fruiting of plants and limit the amount of food available. The connectivity of this habitat into the wider landscape extends with scrub along the River Arun and not by hedgerows or woodland. Given also the high level of traffic noise from the adjacent main road It is considered very unlikely that Dormice are present here.

European Otter

Desk-top Survey

- 3.29 No records of Otter are held for the site.

Walkover Survey

- 3.30 There are no waterbodies present on Site and no foraging habitat suitable for use by Otter. However, dense areas of vegetation are present at the boundary of the industrial estate to which the site vegetation is connected and, given the close proximity of the River Arun to the site, may provide suitable habitat in which Otter may occasionally refuge. However, the embankment here is adjacent to a busy and noisy main road and it is considered unlikely that due to this disturbance, that Otter would choose to refuge during the daytime here.

European Water Vole

Desk-top Survey

- 3.31 No records of Water vole *Arvicola amphibious* are held for the Site. A record of signs of the presence of Water vole is held for approximately 250m from the site to the north-west, along the River Arun near the roundabout with the A259. There are four further records of Water vole within the Zone of Influence all in Climping.

Walkover Survey

- 3.32 There are no waterbodies present on site and no habitat suitable for use by Water vole within the adjacent vegetation strip. A ditch is present adjacent to the Site to the west that carries

waste-water to the River Arun and is not considered suitable habitat. It is considered very unlikely that Water vole are present here.

Birds

Desk-top Survey

- 3.33 Records are held for 276 species of bird within the Zone of Influence of the proposals. Of these 93 species are Sussex notable bird species. There are no site-specific records revealed by the data search. This high diversity of bird species is due to the coastal location of the site and the River Arun very nearby.

Walkover Survey

- 3.34 The site offers suitable habitat for breeding and foraging birds with trees, shrubs and scrub present (**Photos 5 & 6**). The adjacent industrial estate unit building also offers suitable habitat for breeding birds as there are some gaps around the windows and gaps into metal sheet cladding.
- 3.35 All breeding birds and their nests are protected by UK law. A Woodpigeon *Columba palumbus* was seen sitting on a nest in a tree along the chain-link fence very nearby to the Site within the wider vegetation strip and a fledgling bird was heard calling to be fed within a mature Sycamore tree on Site. Gulls were also noted with mature chicks on the roof of the adjacent industrial estate unit and are likely to have bred here. All gull species in the UK are currently endangered and are on the Birds of Conservation Concern (BoCC) list. It is therefore important to know whether these species are breeding here and to assess whether there would be any impacts upon them from the proposals. Therefore, it is recommended that a breeding bird survey is undertaken on Site. Best practice requires that six visits are undertaken between March and July but given the small areas of suitable habitat on site, this survey could be less. As part of the proposals it will be necessary for any vegetation clearance works required to commence outside the bird breeding season March-July inclusive. The season may also extend outside this period in good years however.

Reptiles

Desk-top Survey

- 3.36 No records of reptiles are held for the site. A record of a single Common lizard is held for the southern boundary of the wider Industrial Estate adjacent to the River Arun. Records of two species of common reptiles are however held for the Zone of Influence of the proposals: Common lizard *Zootoca vivipara* and Slow worm *Anguis fragilis* with 62 and 27 records held respectively. Records are held nearby to the site for Slow worm to the north of the site approximately 250m away but on the opposite side of the B2187 road where four individuals

were recorded. Records of individual Slow worms are also held for along Bridge Road to the north of the site and within the 1km grid square in which the site lies. A record for Common lizard is held for just north-west of the nearby roundabout for the A259, off Hawthorn Road. Records of both these species are held for along the River Arun nearby.

Walkover Survey

- 3.37 All UK reptiles are protected from killing and injury by law and it is thus best practise to identify where reptiles may occur on site through survey and to ensure that they are safeguarded.
- 3.38 The site itself largely comprises hard-standing which does not provide suitable habitat for reptiles. Part of the site does however contain mature vegetation, where the site includes part of the industrial estate boundary vegetation. Here there is scrub dominated by bramble and piles of compost and rubbish, overgrown with ivy (**Photos 4 & 5**) and this provides suitable refuging and foraging habitat for common reptiles. This area also has a southern aspect and thus offers basking potential for reptiles at the edge of the vegetation where the sun shines for most of the day. It is therefore best practice that a reptile survey is undertaken to assess whether reptiles are present and their population size. Reptile refugia are laid on site for use by reptiles and are then subsequently checked during appropriate weather conditions. It is recommended that this survey is undertaken.

Amphibians

Desk-top Survey

- 3.39 No records of amphibians are held for the Site. Records of Smooth and Palmate newt *Lissotriton vulgaris* and *Lissotriton helveticus* are held for Climping. Records of Common Frog *Rana temporaria* are held for Littlehampton and Wick, Littlehampton approximately 700m to the north of the site. No records of Great-crested Newts are held for the Zone of Influence of the proposals.

Walkover Survey

- 3.40 The site itself largely comprises hard-standing which does not provide suitable habitat for amphibians. No waterbodies are present on site. Part of the site does however contain mature vegetation, where the site includes part of the industrial estate boundary vegetation. Here there is scrub dominated by bramble and piles of compost and rubbish, overgrown with ivy (**Photos 4 & 5**). As for reptiles, these habitats provide suitable refuging and foraging habitat for common amphibians. Common amphibians are protected from sale in the UK and all vertebrates are protected in the UK from an inhumane death by animal welfare laws. It is therefore best practice that this vegetation be removed outside the hibernation season, November to March inclusive. Measures will also be necessary to ensure any amphibians present are moved out of harms way prior to the construction as part of a destructive search

supervised by an ecologist. Any common amphibians found would be moved to the wider suitable habitats nearby within the off-site vegetation strip.

- 3.41 No waterbodies are present on site and there are no known ponds within 500m of the proposals site which would trigger further assessment for Great Crested Newts (GCN). There is a ditch within the wider vegetation strip to the boundary of the industrial estate very nearby but this is dry and looks like this has been the case for some time and does not therefore provide breeding habitat for GCN.

Terrestrial Insects

Desk-top Survey

- 3.42 No terrestrial insect records are held for the Site. Thirty-one species of invertebrate are known for the Zone of Influence of the scheme. A record of three White-letter hairstreak *Satyrrium w-album* butterflies is known for approximately 1km to the south of the Site.

Walkover Survey

- 3.43 The majority of the site comprises hard-standing and thus does not offer suitable habitat for use by terrestrial insects. The part of the site where mature vegetation occurs will offer some mature tree and scrub habitats for common insect species as it does have a south-facing aspect and thus receives sunlight for much of the day. The majority of the mature vegetation strip on the boundary of the industrial estate will largely remain unaffected directly by the proposals but there will be the loss of sunlight reaching the edge of the vegetation strip and thus flowering and fruiting of plant species will be reduced and hence foraging value of the area for insects is likely to be reduced.

4. CONCLUSIONS & RECOMMENDATIONS

Designated Sites

- 4.1 There are no protected sites of ecological value on the site but there is a site of local value at Riverside Industrial Estate nearby to the site: Designated Road Verge - A259 Eldon Way, Bridge Road, Littlehampton. This site is located to the north-east of the Site behind Unit H. It is considered that this designated site will not be affected directly by the proposals.

Ecological Receptors

- 4.2 The Site proposed for development largely comprises hard-standing with some mature vegetation with trees that forms part of a boundary strip for the wider industrial estate. Thus, there is limited habitat present of low ecological value on site. The mature vegetation strip provides suitable habitats for birds and common reptiles and thus surveys need to be undertaken to assess for the presence of these species. All breeding birds and their nests are protected by UK law. A breeding bird survey requires six visits between March and July to meet best practice but the season may also extend outside this period in good years. Hence it is late in the year for this survey but given the small area of vegetation potentially affected, a very prompt visit or two may catch the very end of the season and give an indication of the Site's value for these species. A reptile survey requires seven visits between April and June or in September/October to meet best practice and thus this survey would still be possible this year. It is recommended that these surveys are undertaken. If presence of these species is confirmed, measures will need to be taken for the works to avoid the bird breeding season – March to July and the reptile hibernation season – October to March. Should Common reptiles and amphibians be found on site, any vegetation required for removal should be subject to a destructive search of habitat to be removed prior to construction and this will need to be supervised by an experienced ecologist.
- 4.3 The industrial unit adjacent to the site is a simple structure and is considered of low-negligible value for bat roosts. However, the mature boundary vegetation which includes some trees has the potential to provide foraging, roosting and commuting habitat for bats which are European Protected Species. It is thus best practice for two bat emergence/re-entry surveys to be undertaken on Site and of the adjacent industrial unit between May and September, one of which must be between May and August, to further evaluate the bat status on Site and within habitats in close proximity. It is recommended that these surveys are undertaken.
- 4.4 Badgers are likely to pass though the site as they forage along the boundary of the Industrial Estate and are thus likely to be foraging through the vegetated part of the Site. Steps should therefore be taken to ensure that any excavations/pits dug as part of the proposals are covered overnight and an escape plank installed to allow any wildlife that should fall in to escape.

5.0 REFERENCES

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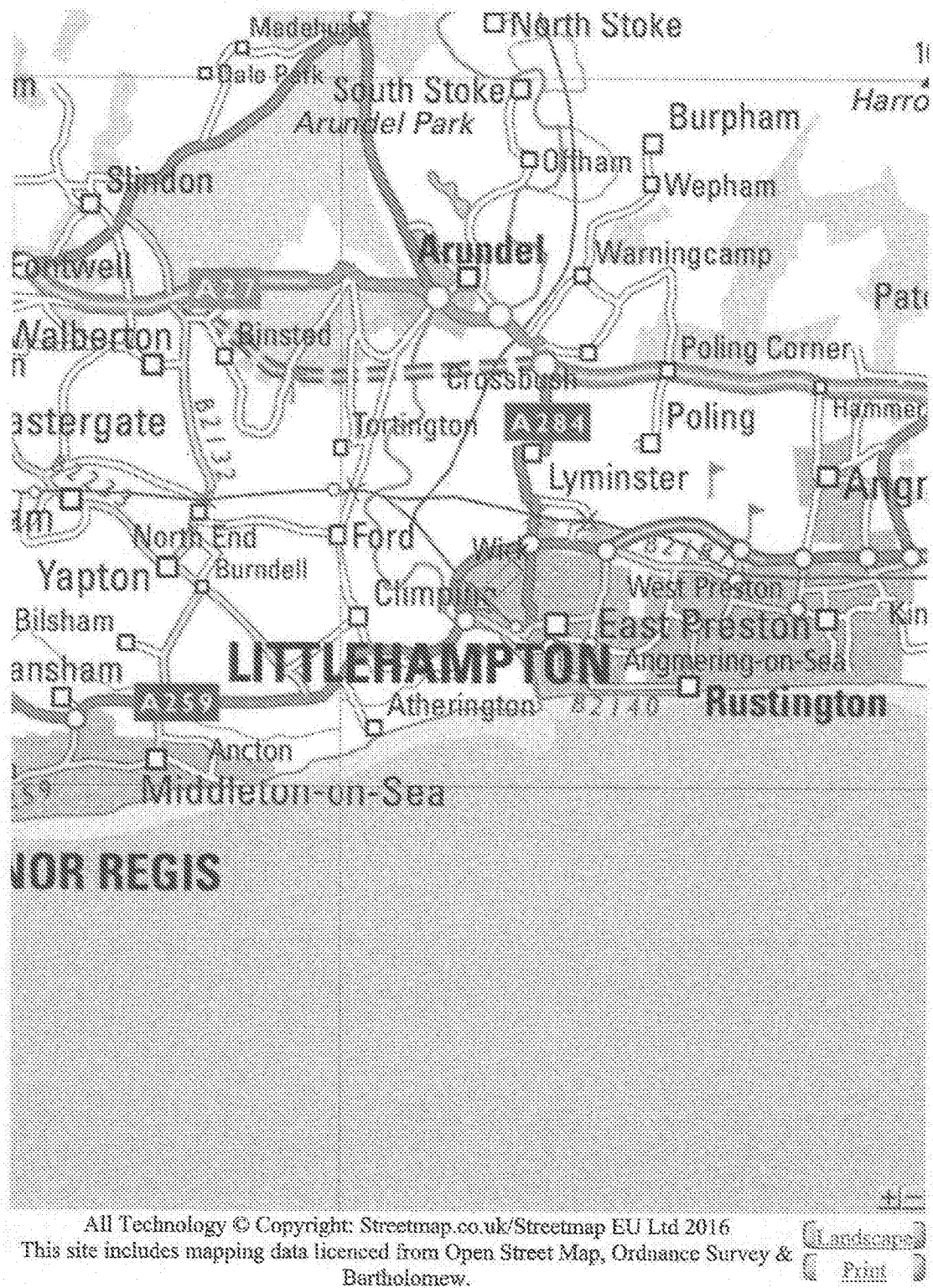
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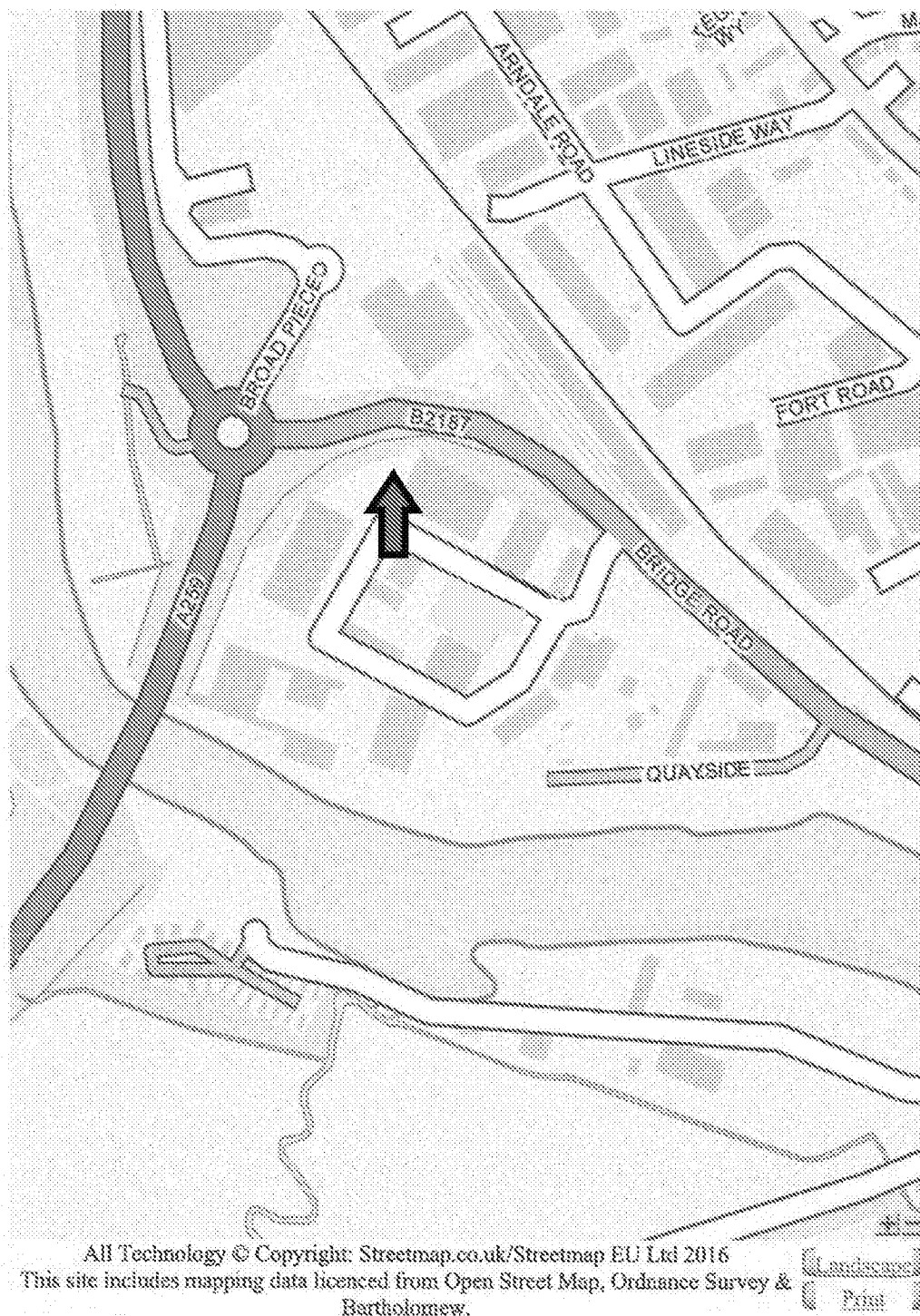
PLANS

Plans 1a & 1b Site Location.

Plan 1a: Site Location.



Plan 1b: Site Location – Closer View



APPENDICES

APPENDIX 1: SUMMARY OF UK LEGISLATION & POLICY

Legislation

The Conservation of Habitats and Species Regulations 2017

Otherwise known as 'The Habitats Regulations', this legislation transposes the EU Habitats Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna into UK law. Under this legislation Special Areas of Conservation (or SACs) and Special Protection Areas (SPA) can be designated as sites of European importance. These sites and their qualifying interests are protected from damage.

Species listed under Schedule 2 of these regulations are protected from deliberate killing, injury or significant disturbance and their breeding sites or resting places are also protected from damage and destruction. European protected species include: all UK species of bat, dormice, otter and great crested newts.

In order for development that may affect one of the above species to proceed and to avoid committing an offence, licences are achievable from Natural England. In order for licences to be granted the following tests must be met:

- The proposal must be necessary '*to preserve public health or public safety or for other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment*';
- The proposals must *not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range*;
- There must be no '*satisfactory alternative*'.

Wildlife & Countryside Act 1981

The Wildlife & Countryside Act 1981 (as amended) is the principal mechanism for the legislative protection of wildlife in the UK. This Act relates to the designation and protection of Special Sites of Scientific Interest (SSSI) and Protected Species. The Act includes:

- The protection of SSSIs and prohibitive lists of potentially damaging operations;
- The protection of wild birds from intentional killing and injury, destruction of their nests whilst being built or in use and taking of eggs;
- The protection of animals listed on Schedule 5 from intentional killing, injury and taking, possession and sale. Places used for shelter and protection are also protected against intentional disturbance, obstruction, damage and destruction. Species on Schedule 5 include:
 - Bats (all species);
 - Dormice;

- Water Vole;
 - Great Crested Newt;
 - Otter;
 - All UK reptile species;
 - Common amphibians;
 - Certain invertebrates including Stag Beetle.
- The protection of plants listed on Schedule 8;

Countryside & Rights of Way Act 2000

The CROW Act strengthened parts of the Wildlife and Countryside Act to include the term 'reckless' when considering whether an offence is intentional. Thus if it can be demonstrated that sufficient knowledge of the likelihood of an offence is known then prosecution will follow.

Natural Environment & Rural Communities (NERC) Act 2006

The NERC Act firmly places a duty on Local Authorities to conserve biodiversity. The Act required the publication of a list of the living organisms and types of habitat which are of principal importance for the purpose of conserving biodiversity: the Section 41 List. The conservation of species on this list forms part of the duty of Local Authorities to conserve biodiversity. Species on the list include:

- All species of UK bat;
- All species of UK reptile;
- All species of UK amphibian;
- Otter, dormice, water vole and hedgehog;
- Birds including Skylark, Cirl Bunting and Yellowhammer;
- Invertebrates including the butterflies Wall, Dingy Skipper and Brown Hairstreak.

Protection of Badgers Act 1992

Due to their persecution, badgers are protected from killing, injuring and their setts from damage under the Protection of Badgers Act 1992. Development may need licences from Natural England to disturb or destroy badger setts where works are required in close proximity.

Hedgerow Regulations 1997

Important hedgerows are protected from removal by the Hedgerow Regulations 1997. Criteria are used to identify whether a hedgerow is one of importance for ecological, historical or landscape reasons.

Policy

National Planning Policy Framework (July, 2018)

The Government's stance on biodiversity is set out in The National Planning Policy Framework (July, 2018) and includes how biodiversity policy is expected to be applied in order to achieve sustainable development. The environment is considered a core component of sustainable development and the planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils;
- recognising the wider benefits of ecosystem services;
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- preventing both new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.

To protect and enhance biodiversity and geodiversity, plans should:

- distinguish between the hierarchy of international, national and locally designated sites, allocate land with the least environmental or amenity value, where consistent with other policies; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries;
- identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

Biodiversity Action Plans (BAPs)

UK Biodiversity Action Plan

The UK Biodiversity Action Plan is the UK Government's response to signing up to the Convention on Biological Diversity in 1992 and is the national strategy to identify nature conservation priorities and key principals for future biodiversity conservation.

Biodiversity 2020: a strategy for England's Wildlife and Ecosystem Services sets out how the quality of the environment on land and at sea will be improved over the next ten years, following on from policies contained in the Natural Environment White Paper, published in June 2011.

APPENDIX 2: DESIGNATED SITES - CITATION SHEETS

LOCAL WILDLIFE SITE (LWS) West Sussex

Site Name: Littlehampton Golf Course & Atherington Beach Site Ref: Ar06 Owner: Private District:
Arun Size (ha): 45.8 Parish: Littlehampton & Climping

Date: Identified May 1992 National Grid Ref: TQ020013 Author:Graham Roberts

Habitat: Calcareous grassland, ditch and shingle beach Summary: Littlehampton Golf Course is of species rich turf. The southern edge of the golf links includes an area of dry dune grassland, adjacent to the sand dune system of Climping Beach SSSI. The site also includes an area of vegetated shingle beach, a nationally uncommon habitat. Site description: The dry, fixed dune grassland, just north of Climping Beach SSSI, is an exceedingly rare habitat in West Sussex. Several rare plants occur here, including Sea-holly *Eryngium maritimum*. It is the only site in West Sussex for two very rare plants, Sand Catchfly *Silene conica* and Nottingham Catchfly *Silene nutans*. Much of the golf course grassland has been improved. However, there are pockets of species-rich sward with Lady's Bedstraw *Galium verum*, Wild Carrot *Daucus carota*, Buck's horn Plantain *Plantago coronopus*, Viper's-bugloss *Echium vulgare*, Goat'sbeard *Tragopogon pratensis*, Heathgrass *Danthonia decumbens* and Oxeye Daisy *Leucanthemum vulgare*.

County rarities such as Spiral Tasselweed *Ruppia cirrhosa*, Bulbous Meadowgrass *Poa bulbosa* and Suffocated Clover *Trifolium suffocatum* occur here. The golf course grassland also supports many scarce species such as Spiny Restharrow *Ononis spinosa*, Common Stork's-bill *Erodium cicutarium*, Autumn Lady's tresses *Spiranthes spiralis*, Adder's tongue *Ophioglossum vulgatum*, Greenwinged Orchid *Orchis morio* and Southern Marsh Orchid *Dactylorhiza praetermissa*. The ditch flora includes Sea Clubrush *Scirpus maritimus*, Sea Arrowgrass *Triglochin maritima* and Common Reed *Phragmites australis*. The Short-winged Cone-head and the rarer Long-winged Cone-head have both been recorded on the golf course. The vegetated shingle beach to the west of Climping Beach SSSI supports several uncommon plants, notably Yellow Horned-poppy *Glaucium flavum* and Seakale *Crambe maritima*. The whole area is of great ornithological importance, particularly for migrant birds. Several pairs of Reed Warblers breed in the small patches of reed on the golf course.

Management recommendations: It is crucial that the most important areas on the golf links are identified so that their special interest can be taken into account in managing the course. The vegetated shingle beach must be protected from undue human disturbance.

PHOTOGRAPHS

Photo 1: Aerial View of Riverside Industrial Estate, Littlehampton (Google Earth, 2020).



Photo 2: View of hardstanding within the proposals site and the adjacent industrial unit – Unit H.



Photo 3: View of scrub and ephemeral herbs at the interface of the hardstanding and mature vegetation within the site.



Photo 4: View of the wide area of scrub at the southern edge of the vegetation area.



Photo 5: A chain-link fence forms the boundary of the industrial estate within the mature vegetation strip.



Photo 6: Off-site on the embankment, the mature vegetation strip has more mature trees and ground flora dominated by Ivy *Hedera helix*.



Photo 7: A ditch runs along the boundary between the industrial estate and the embankment for Bridge Road off-site.

