



Update Preliminary Ecological Appraisal

Land North of Roundstone-By-Pass,
Angmering

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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 and 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

Background

1.1 The Ecology Partnership was commissioned by Strutt and Parker Ltd to undertake an update preliminary ecological appraisal (PEA) on Land North of Roundstone-By-Pass, Roundstone By Pass, Angmering, BN16 4BD.

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);
- Previous survey (Section 2);
- Assessment methodologies (Section 3);
- Results (Section 4);
- Implications for development (Section 5);
- An impact assessment (Section 6);
- Conclusions (Section 7).

Site Context and Status

1.4 The site is located to the south-east of Angmering, West Sussex (TQ 0750 0329). It covers approximately c. 0.3ha and comprised of hard-standing, scrub, tall ruderal vegetation, neutral semi-improved grassland and scattered trees. The immediate surroundings comprised of a main road to the west, low-density residential housing to the south, new developments in progress to the north and commercial units to the east.

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



Figure 1: Approximate location of the red line boundary from Google Earth Pro (Taken on: 12th August 2021)



Figure 2: Approximate location of the redline boundary showing the wider landscape from Google Earth Pro (Taken on: 12th August 2021)

Description of Proposed Development

- 1.6 Current proposals for the site involve the development of the land into a car showroom, with associated parking and facilities. This would currently involve the removal of most habitats on site.

Relevant Planning and Legislation

- 1.7 The outline application was assessed against policy guidance provided by the National Planning Policy Framework (2021), as well as relevant planning 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
 - Policy ENV DM5: Development and biodiversity
- 1.8 This report addresses the site in relation to nature conservation and wildlife and indeed to the local planning requirements as well as national planning and nature conservation legislation.
- 1.9 The Environment Act (Nov 2021) introduces a new regime of environmental principles and governance to fulfil the role that will be lost upon Brexit and includes a new regulator ensure environmental governance through an environmental watchdog, the Office for Environmental Protection (OEP). This act also includes a system of targets and monitoring, including that of biodiversity. Biodiversity net gain targets (10% increase) will be required. Net gain requirements are considered to come into effect in 2023.
- 1.10 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 2017) and in accordance with BS 42020:2013 Biodiversity – Code of Practise for Planning and Development.

2.0 Previous Survey

- 2.1 The Ecology Partnership previously conducted a preliminary ecological appraisal (PEA) of the site in 2018 (The Ecology Partnership, 2018).
- 2.2 It recorded dominant hard-standing and lined gravel substrates within the red line boundary, with areas of bare earth and habitats on site consisting of scattered trees, scrub, semi-improved grassland and ephemerals/ short perennials. Further details can be found in The Ecology Partnership (2018) PEA report.
- 2.3 The PEA identified the potential for foraging and commuting bats, commuting badgers, nesting birds and rabbits on site, with recommendations regarding precautionary methods of work during development.

3.0 Methodology

Desktop Study

- 3.1 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.
- 3.2 Records of protected and notable species within 2km of the site were requested from the local biological records centre, Sussex Biodiversity Records Centre (SxBRC). Information on the on the presence of non-statutory designated sites within 2km of the site was also obtained by SxBRC. Records were screened for relevance and age with only those from the last decade and of species that could occur on site considered further.

Preliminary Ecological Appraisal

- 3.3 An extended preliminary ecological appraisal was undertaken on the 16th August 2021 by Ecologist Aimee Littlechild BSc (Hons). This included an assessment of both the habitats and protected species potential of the site.

Phase 1 Habitat Survey

- 3.4 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.
- 3.5 Plant species abundance was recorded using the DAFOR scale and species abundance was assigned to one the following categories in Table 1.

Table 1: DAFOR Scale Lettering

DAFOR Category	Letter
Dominant	D
Abundant	A
Frequent	F
Occasional	O
Rare	R

Protected Species Assessments

- 3.6 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).

Tree Assessment for Bats

- 3.7 Trees on site were assessed for their potential to support roosting bats. Bats can use trees to rest, give birth, raise young and/or hibernate. The trees were assessed visually for evidence of bats as well as for features that increase the likelihood of roosting bats, such as the following:
- Woodpecker holes, natural cracks and rot holes in trunks and branches;
 - Frost cracks;
 - Trunk and branch splits;

- Hollow sections of trunk and branches;
- Loose bark;
- Cavities beneath old root buttresses and coppice stools;
- Dense epicormic growth;
- Dense ivy cover.

Limitations

3.8 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.

3.9 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.

4.0 Results

Desktop Study

4.1 The site is not designated for its nature conservation value nor does the site lie adjacent to any designated sites. There are no internationally designated sites within 10km of site with the closest, Arun Valley, Special Protection Area (SPA), Special Area of Conservation (SAC) and Ramsar site is located approximately 10.75km north-west of site.

4.2 There is one statutory designated site within 2km of site; The South Downs National Park which lies approximately 1.2km north east of site. The next closest statutory designations

are the Climping Beach Site of Special Scientific Interest (SSSI) located c. 5km west of the site and Arundel park SSSI located c. 6.75km north-west. The site lies outside of the SSSI impact risk zones for the above designated sites (Figure 3). Furthermore, Pagham Harbour SPA, SSSI and Ramsar is also over 19km west of the site.

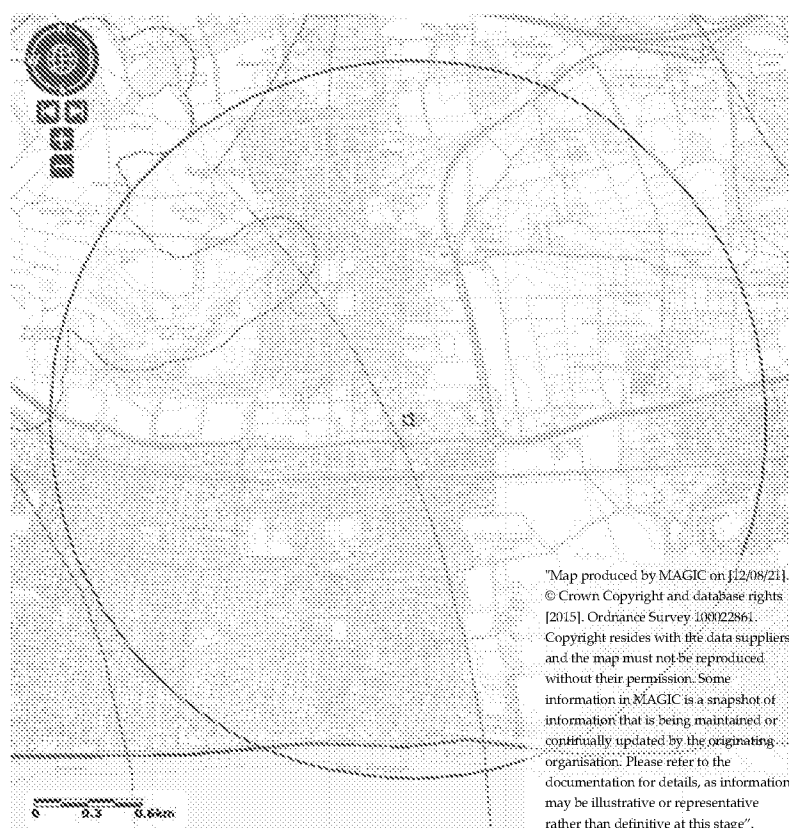


Figure 3: SSSI impact risk zones (purple lines) within 2km (red line) around the red line boundary of the site

- 4.3 There are no Local Nature Reserves within 2km of the site, with the closest site being the West Beach LNR, which is approximately c. 5k m from the site.
- 4.4 In terms of non-statutory designations, there are two Local Wildlife Sites (LWS) within 2km of the site. These are:
- Ferring Rife and Meadows LWS which is approximately c. 1.3km south east of site;
 - Highdown Hill and the Miller's Tomb LWS which is approximately c. 1.6km north east of site.

4.5 The site does not support any Habitats of Principal Importance but the site is surrounded by a number of priority habitats (Figure 4), including:

- Traditional orchards, c. 15m south-east;
- Good quality semi-improved grassland, c. 175m north;
- Deciduous woodland, c. 900m south-west;
- Lowland calcareous grassland, c. 1.7km north-east;
- Ancient and semi-natural woodland, c. 1.75km north;
- Coastal vegetated shingle, c. 1.75km south;
- Coastal and floodplain grazing marsh, c. 1.9km south-east;
- Lowland fen, c. 1.8km south east; and
- Intertidal mudflat, c. 1.9km south.

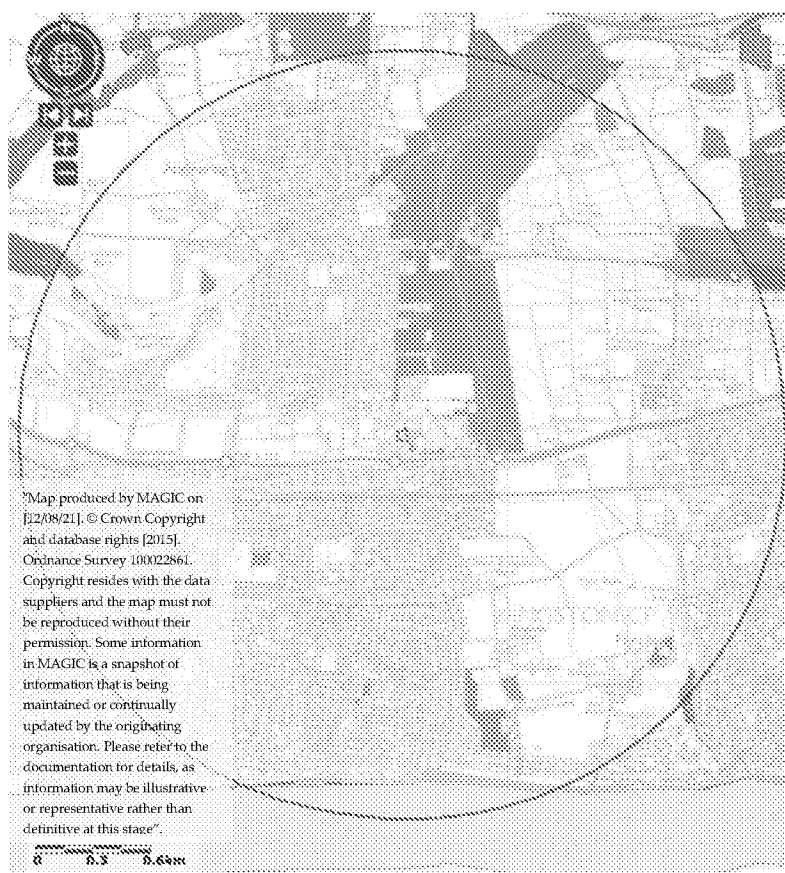


Figure 4: Priority Habitats: good quality semi-improved grassland (pink), deciduous woodland (dark green), ancient & semi-natural woodland (brown vertical hatching), coastal and floodplain grazing marsh (blue,) traditional coastal vegetated shingle (aqua) and lowland calcareous grassland (khaki green) surrounding the red line boundary.

- 4.6 In terms of waterbodies, OS maps revealed two water-bodies within 500m of the red line boundary, located approximately 240m and 310m west of site (Figure 5).

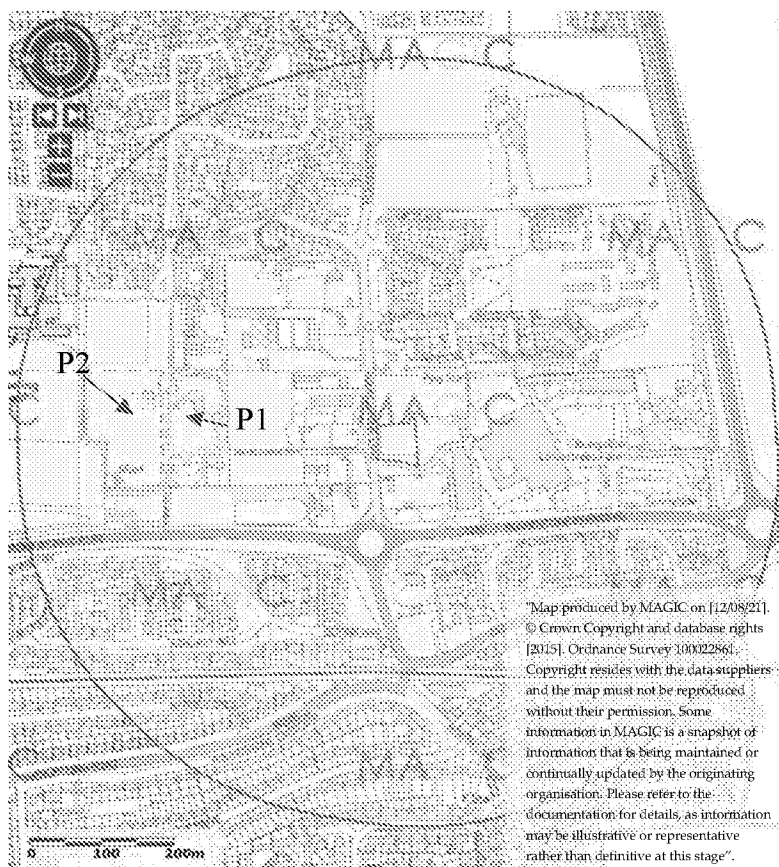


Figure 5: Ponds within 2km (red line) around the red line boundary of the site

- 4.7 The search revealed no European protected species (EPS) licences were required within 2km of site but a single great crested newt licence return was recorded in 2014, approximately 950m north of site.
- 4.8 Records of the local area from the Sussex Biodiversity Records Centre were reviewed. The records closest to site and recorded within the last 10 years have been included (Table 2).

Table 2: Biological Records from Sussex Biodiversity Records Centre

Species*	Legislation	Distance from site	Most recent record
Water Vole <i>Arvicola amphibius</i>	Wildlife and Countryside Act 1981 (as amended) Schedule 5; NERC Act (2006) Section 41.	c. 1.2km north west of site (2019)	2019
Hazel dormouse	European Protected Species. Conservation of Habitats and Species Regulations (2010) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 9.4b/9.4c/9.5a. NERC Act (2006) Section 41	c. 1.9km north east of site	2015
West European Hedgehog	UK BAP Priority, RedList GB post2001 VU	c. 700m north west of site (2017)	2019
Slow-worm <i>Anguis fragilis</i>	Wildlife and Countryside Act 1981 (as amended) Schedule 5; NERC Act (2006) Section 41; UK BAP Priority species	c. 250m west of site	2017
Serotine <i>Eptesicus serotinus</i>	The Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5; UK BAP Priority	c. 1.1km north of site	2020
Noctule <i>Nyctalus noctula</i>	The Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5; UK BAP Priority	c. 1.1km north of site	2020
Common pipistrelle <i>Pipistrellus pipistrellus</i>	The Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5; UK BAP Priority	c. 1.1km north of site	2020
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5; UK BAP Priority	c. 1.1km north of site	2020
Brown Long-eared Bat <i>Plecotus auritus</i>	The Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	c. 1.7km north of site	2014

*Additional species are present within the biological records but may be older than 10years or outside our search radius. Some species have not been included due to the likelihood of presence on site due to habitat types.

Phase 1 Habitat Survey

- 4.9 The site comprised of a hard-standing, dense scrub, a mosaic of tall ruderal vegetation and scattered scrub, neutral semi-improved grassland and scattered trees. The majority of the vegetation on site was growing on top of a lined gravel substrate sectioned by degrading concrete paths, but vegetation growth is dominant in these areas, with only small sections of the substrate visible. Two waterbodies were present within 500m of the site. These habitats are all discussed further in the relevant sections of this report.

Hard-standing and lined gravel substrate

- 4.10 The central portion of the site consisted of a degrading hard-standing path running approximately west to east. Additional smaller, narrower paths run off this path to the north and south with a lined gravel substrate located in-between. With the exception of the central path, these areas have been largely colonised by scrub and tall ruderal vegetation, as discussed below.

Scattered and dense scrub

- 4.11 Scattered scrub was recorded alongside tall ruderal plants across the majority of the central site with dense scrub recorded along the northern boundary. Species included dominant bramble (*Rubus fruticosus* agg.), frequent buddleja species (*Buddleja* sp.); with occasional dog rose (*Rosa canina*) common nettle (*Urtica dioica*) and greater burdock (*Arctium lappa*); with rare stinking iris (*Iris foetidissima*). The scattered scrub in the centre of site was approximately 0.5m tall, with dense scrub along the northern border and scrub across the perimeter fence lines much taller at approximately 2.5m.

Scattered trees

- 4.12 Scattered mature deciduous and coniferous trees were present along the northern and southern site boundaries, with a number scattered across the central portion of the site. One additional palm tree was also recorded near the western boundary, within the grassland recorded in this area.

- 4.13 Tree species present included abundant silver birch (*Betula pendula*) and goat willow (*Salix caprea*); occasional cherry (*Prunus sp.*) and beech (*Fagus sp.*); with rare Scot's pine (*Pinus sp.*), cypress (*Cupressus sp.*) and elder (*Sambucus nigra*). The trees along the boundary features were mature with trees in the centre of site more immature. Tree height varied from approximately c. 5 to 20m tall.

Tall ruderal vegetation

- 4.14 A section of tall ruderal vegetation was recorded along the southern boundary of site, with the central portion of site comprising a mosaic of scattered scrub and tall ruderal plants. The vegetation height at the time of survey was approximately 1m tall and the central portion of site had plants growing on the lined gravel substrate.
- 4.15 Species present included abundant great willowherb (*Epilobium hirsutum*) and rosebay willowherb (*Chamerion angustifolium*); frequent Yorkshire fog (*Holcus lanatus*), common sorrel (*Rumex acetosa*), common ragwort (*Jacobaea vulgaris*), spear thistle (*Cirsium vulgare*), creeping thistle (*Cirsium arvense*) and bristly oxtongue (*Picris echioides*); occasional common nettle, petty spurge (*Euphorbia peplus*), hedge mustard (*Sisymbrium officinale*), hedge bindweed (*Calystegia sepium*); with rare tutsan (*Hypericum androsaemum*).

Neutral semi-improved grassland

- 4.16 A small section of neutral semi-improved grassland was present along the western site boundary. Grass species present included abundant creeping bent (*Agrostis stolonifera*), Yorkshire fog and yarrow (*Achillea millefolium*); frequent white clover (*Trifolium repens*), red clover (*Trifolium pratense*) and creeping cinquefoil (*Potentilla reptans*); occasional black meddick (*Medicago lupulina*), creeping buttercup (*Ranunculus repens*), and selfheal (*Prunella vulgaris*); with rare scarlet pimpernel (*Anagallis arvensis*), dandelion (*Taraxacum agg.*), field bindweed and birds foot trefoil (*Lotus corniculatus*). This habitat gradually merged into the tall ruderal habitat recorded along the southern boundary.

*Target Notes*¹

Target Note 1 – Rabbit droppings: There were numerous rabbit droppings across site, predominantly large piles on the hard standing in the centre of site.

Target Note 2 – Log piles: Two small log piles were recorded within the red line boundary, towards the south of site.

Target Note 3 – Foxes: Two foxes were recorded resting within the scrub on site.

Protected Species

Badgers

- 4.17 No evidence of badgers, such as setts, latrines or snuffle holes, was identified on site. It is considered unlikely that badgers utilise the site for foraging and commuting purposes due to the quantity of suitable habitats on site and the sites isolation from optimal badger habitats in the wider area. It must be noted however, that due to the density scrub along the northern boundary, not all areas of the site could be comprehensively searched for evidence of badger activity.

Bats

Tree Assessment for bats

- 4.18 None of the trees on site were considered to have potential for roosting bats due to lacking in features suitable for roosting bats such as cracks in bark or woodpecker holes.

Foraging and commuting habitats for bats

- 4.19 The scattered trees, scrub, semi-improved grassland and tall ruderal vegetation on site could provide only limited foraging and commuting opportunities for local bats. These habitats were poorly connected to each other and the surrounding landscape due to the site being surrounded by a development, two main roads and large commercial units. The habitats in the surrounding landscape were also considered to provide only limited

¹ The location of the Target Notes can be seen within the habitat map in Appendix 1.

opportunities for bats in the local area due to the dominance of high-density housing with maintained gardens, hard-standing, amenity grasslands and arable fields.

- 4.20 Records have been returned for serotine, noctule, common pipistrelle, soprano pipistrelle and brown long-eared bat within 2km of the site. However, due to the separation of the site from the surrounding landscape and the limited number of suitable habitats within the local surroundings, the site overall was considered to have only limited suitability for foraging and commuting bats.

Great Crested Newts

- 4.21 There was two water-bodies identified from mapping services within 500m of the site (Figure 5). Using historical aerial photography however, Pond 2 located approximately 310m west of site, had ceased to be a pond since at least 2007. Pond 1 was assessed on the day of the survey and this was considered to be unsuitable for GCN, predominantly due to the pond being surrounded by shortly maintained amenity grassland, which provides no commuting habitat. Due to its separation from the site by a main road, commercial units with associated hard-standing and residential housing, which may all act as barriers to dispersal, it is considered highly unlikely that GCN would traverse from the pond to the site.
- 4.22 The semi-improved grassland, scrub, scattered tree and tall ruderal vegetation provide only limited opportunities for GCN. This due to these habitats having a gravel substrate and its location being isolated from the surrounding landscape by main roads, large commercial units and a new development which may all act as barriers to dispersal. The dense scrub along the northern boundary, plus log piles on site (Target Note 2, Appendix 1) however, whilst small and sparse, could offer limited refuge opportunities. The habitats within the surrounding landscape were also considered to have limited suitability for GCN and there was only one record of a GCN licence return for the species, nearly 1km north of site back in 2014.

Dormice

- 4.23 The site comprised predominantly of habitats which do not provide suitable habitats for dormice. The scattered trees and scrub on site could provide only limited commuting and foraging opportunities, due to the quality of suitable habitats on site and the sites isolation from optimal dormice habitats in the wider area. There were two records for hazel dormice returned within 2km of site, both located approximately 1.9km of site, in habitats much more suitable for the species and separated by roads and infrastructure.

Reptiles

- 4.24 The site has suitable habitat for reptiles, semi-improved grassland, scrub and tall ruderal vegetation. The hard-standing and lined gravel substrates however, reduces the suitability for reptiles on site. Furthermore, it is also considered that the site is isolated from more suitable reptile habitats in the surrounding landscape and the site itself is surrounded by areas of hard standing, which is unsuitable for reptiles. The log piles on site at Target Note 2 only provides some refuge opportunities.
- 4.25 The surrounding landscape is dominated by habitats which are not considered to be suitable for reptiles including high-density housing with maintained gardens, hard-standing and short amenity grassland. The closest historical record for reptiles is for slow-worm approximately c. 250m west from the site in 2017.

Nesting Birds

- 4.26 Birds are likely to use the trees and scrub on site for foraging and breeding. A number of species were observed on site including blackbird and wood pigeon.

Other Species

- 4.27 A number of rabbit droppings were present on the hard standing (see Target Note 1, Appendix 1) and two foxes were also recorded resting on site, near the dense scrub along the northern boundary. Due to the dense scrub along the northern boundary, not all areas could be searched for rabbit holes or fox dens.

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- 4.28 Due to a lack of suitable habitat on-site and a lack of connectivity between site and suitable habitat off site, there is no potential for other species such as barn owls, water voles and otters.

5.0 Discussion

Effects on designated sites

- 5.1 The site does not fall within any statutory designations but there is one statutory designated site within 2km of the site, The South Downs National Park, approximately 1.2km north-east of the red-line boundary. National parks however, are landscape designations rather than ecological designations and as such, will not be considered further in this report.
- 5.2 The next closest statutory designations are the Climping Beach SSSI and Arun park SSSI which are c. 5 km and 6.75km from the site's red line boundary respectively. Pagham Harbour SPA, SSSI and Ramsar is also located over 19km west of the site.
- 5.3 The proposals on site must be completed in accordance with **Arun District Council's Policies ENV DM1 and DM2** in which proposals must not have any adverse direct or indirect impacts on land with the designated features of any Site of Biodiversity, in particular Pagham Harbour SPA. Due to the distances involved, the proposals do not fall within the SSSI impact zones for Climping Beach or Arun Park SSSI's which would require proposals to have a consultation Local Planning Authority. Furthermore, at 19km away, the proposed development site is located well outside the 5km zone of influence identified for Pagham Harbour SPA and Ramsar site.
- 5.4 Additionally, due to the nature of the proposals and the surrounding landscape, it is not considered that the proposals would have any adverse direct or indirect impacts on any of the above sites, particularly as the site is not located on or adjacent to any of these sites. The site is also separated from these designated sites by dense residential housing, roads and agricultural land with limited direct ecological connections to the site. Therefore, any development within the red line boundary would not result in the loss, fragmentation or

isolation of any habitats on local designated sites. Consequently, it is considered that the proposals would be completed in accordance with the above policies.

- 5.5 There were also two Local Wildlife Sites (LWS) located within 2km of the redline boundary. Considering the distance from the development site and the LWS's, any direct or indirect impacts would be minimal. To ensure there are no adverse impacts on these surrounding habitats and features, it is recommended that the proposals must retain important ecological features and seek to enhance and protect the sites biodiversity as a whole.

Effects on priority habitats and on-site habitats

- 5.6 Government guidance² requires the protection of ancient woodland, with at least a minimum 15m buffer between the woodland and development. Ancient woodland is located within the surrounding area; however, the closest is located c. 1.75km north of site. Therefore, it is considered that the ancient woodland will not be impacted, directly or indirectly, by the proposed development, which is over 15m away from the ancient woodland. The ancient woodland is off-site and therefore the development will not involve any habitat loss, fragmentation or isolation.
- 5.7 There are a number of other priority habitats surrounding the site, which are listed as habitats of principle importance for the conservation of biodiversity under Section 41 of the NERC Act 2006. This means that development needs to consider impacts on these habitats to prevent their degradation. The closest priority habitat to the site are traditional orchards c. 15m south east of site and deciduous woodland c.900m south west of site but these priority habitats are separated by site by roads and have limited connectivity between them and the proposed development site. It is considered that due to the small-scale of the works proposed and the distance between them, the site will not impact on these habitats.
- 5.8 The habitats on site are common and widespread throughout the local area and the UK as a whole, with the site being dominated by degraded hard-standing and lined gravel

² <https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences>

substrates which both have limited ecological value. The scattered trees, scrub, semi-improved grassland and tall ruderal habitats are considered to be common, widespread and of limited ecological value and considered to be of site value only. Notwithstanding this, the dense scrub and mature trees are considered to be of greater ecological value and it is recommended that as much of this habitat is retained within the development proposals as possible.

- 5.9 The proposals will affect all habitats on site but due to the nature of the site and its surroundings, it is considered that any potential impacts would be limited, particularly if the below recommendations for further surveys and mitigation are implemented. If these measures are followed, then it is considered that the proposals would be completed in accordance with **Arun District Council's Policy ENV DM5** in which proposals must *"include a detailed survey of the subject species, with details of measures to be incorporated into the development scheme to avoid loss of the species."*

Protected Species

Badgers

- 5.10 No evidence of badgers, such as setts or latrines, was observed anywhere on site, although features could be present in the dense vegetation on site. It is also considered unlikely that badgers may visit the development site to forage, due to the built-up areas surrounding the development site, but this cannot be ruled out altogether. Foraging and commuting habitat is not legally protected; however, safety measures can be taken to ensure no badgers are harmed during the development process.
- 5.11 It is 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.

Bats

Tree Assessment for bats

- 5.12 None of the trees on site were considered to have potential for roosting bats due to the lack of suitable features, consequently no further surveys are recommended. Despite this, it is recommended that as many of the scattered trees along the site boundary are retained where possible to maintain an ecological network of habitats

Foraging and commuting habitats

- 5.13 The mature scattered trees, scrub, semi-improved grassland and tall ruderal habitats on site could only provide limited foraging and commuting opportunities for bats in the local landscape. These habitats are poorly connected to each other and the surrounding landscape due to the presence of roads and other infrastructure. The habitats in the surrounding landscape are also considered to be sub-optimal for foraging and commuting bats. There were records of numerous bat species within 2km of the site however, due to the sub-optimal condition of the site and its limited connectivity to the surrounding landscape, the site overall is considered to have only limited potential for foraging and commuting bats.
- 5.14 The Bat Conservation Trust survey guidelines (Collins 2016) states 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.

- 5.15 Current plans for the site involve the removal of the majority of vegetation on site to allow for the construction of a new car showroom within the red line boundary. The site is only 0.3ha and is currently considered to provide only limited opportunities for foraging and/or commuting bats. Considering the above, the small-scale nature of the development proposals and the potential for ecological enhancement to be provided within the site, it is considered that no bat transect surveys would be required. It is considered that the proposals will not impact upon the favourable conservation status of bats in the local area.
- 5.16 Any proposed lighting scheme as part of any development will also have to take into account 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 taken into account with a sympathetic lighting scheme. Recommendations include:
- Installing lighting only if there is a significant need;
 - Using low-pressure sodium lamps or high-pressure sodium instead of mercury or metal halide lamps where glass glazing is preferred due to its UV filtration characteristics;
 - Directing light to where it is needed and avoiding light spillage;
 - Using baffled lighting where light is directed towards the ground;
 - Avoid putting lighting near treelines or hedgerows and angling light away from these linear features which are used by commuting and foraging bats;
 - Planting a barrier or using man-made features required within the scheme to form a barrier.

Great Crested Newts

- 5.17 There is only one waterbody present within 500m of site and this is surrounded by short amenity grassland which is unsuitable for commuting GCN. Whilst the areas of scrub and grassland and tall ruderal vegetation are suitable for GCN, the hard-standing and gravel substrates on site significantly reduce suitability for the species. Furthermore, the site is surrounded by areas of hardstanding and is isolated from suitable habitats in the surrounding landscape.

-
- 5.18 The log piles on site were considered to provide only limited refuge opportunities for GCN as they are small and sparse. There is only one record of GCN within 2km of site, and this was nearly 1km from site back in 2014. Due to the lack of closer /more recent GCN records and the sub-optimal condition of the site for GCN it is considered highly unlikely that GCN would persist on site, therefore no further surveys are considered necessary.

Dormice

- 5.19 Whilst the scattered trees and scrub on site are considered to provide limited habitat opportunities for dormice, the immediate surroundings comprised of habitats with limited opportunities for dormice and the suitable habitats further afar were isolated from the site by roads and other infrastructure. Two records exist for the species in 2015 but these records are 1.9km away within more suitable habitat areas, with no connectivity between them and the proposed development site. Considering the above, it is considered highly unlikely that dormice would be present site, therefore no further surveys are recommended.

Reptiles

- 5.20 Whilst the areas of scrub and, grassland and tall ruderal vegetation are suitable for reptiles, the hard-standing and gravel substrates on site significantly reduces suitability for the species. Furthermore, the site is surrounded by areas of hardstanding and is isolated from suitable habitats in the surrounding landscape.
- 5.21 There were local records for slow worms approximately 250m from the site, however this is isolated from the site by a large main road, commercial units and hard-standing. Consequently, it is considered highly unlikely that slow worms would be able to traverse from this location to the site. Considering the above, it is considered highly unlikely that reptiles would be present on site, therefore no further surveys are considered necessary.

Birds

- 5.22 Scrub and scattered trees on site are considered likely to support a number of bird species including house sparrows and other common passerine species. All birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981 (as amended). Any

demolition of buildings and removal of suitable vegetation should be undertaken outside of the breeding bird season (March - August 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.

Other species

- 5.23 Several piles of rabbit droppings were observed on site (Target Note 1, Appendix 1) and two foxes were also observed on site. No mammal holes were observed at the time of the survey; however, it was considered likely that mammal holes were present within the dense scrub along the northern boundary. Under the Wild Mammals Protection Act 1996 states that it is an offence to crush or cause asphyxiation to mammals. Should any burrows be identified during the vegetation clearance, then these should be excavated by hand rather than using mechanical equipment.

Site Enhancements

- 5.24 A number of enhancements can be made to the final development to help reduce potential ecological impacts. The development will also have to give due regard to the proposed *Arun District Council's Policy ENV DM5* in which states that "*development schemes shall, in the first instance, seek to achieve a net gain in biodiversity and protect existing habitats on site.*" Proposals should also "*incorporate elements of biodiversity including green walls, roofs, bat and bird boxes as well as landscape features minimising adverse impacts on existing habitats (whether designated or not).*"
- 5.25 It is recommended that newly formed landscaped areas around the new car show room boundaries are supplemented with variety of native species post-development. Patches of bare soil can be sown with wildflower seed mixes to increase the biodiversity of the site, enhancing the ecological value of the site for a range of important invertebrate and also offer aspects of aesthetic appeal. Shrubs should also be planted and can include native species such as dogwood (*Cornus sanguinea*), guelder rose (*Viburnum opulus*), wild privet (*Ligustrum vulgare*) and box (*Buxus sempervirens*).

- 5.26 New tree planting may be incorporated into the scheme, particularly around the site boundaries, including to the south of the access road, and along the northern edge. These should be native species of value to wildlife and can include oak (*Quercus sp*), hazel (*Corylus avellana*), beech (*Fagus sylvatica*), elder (*Sambucus nigra*), cherry (*Prunus sp*), hornbeam (*Carpinus betulus*), rowan (*Sorbus sp*), spindle (*Eunoymas europaea*), privet (*Ligustrum vulgare*), box (*Buxus sempervirens*), wayfaring tree (*Viburnum lantana*), bilberry (*Vaccinium myrtillus*) and yew (*Taxus baccata*).
- 5.27 A bee post can be incorporated into the edges of the site. This is a free standing structure made from concrete, and can be used in landscape designs. These should be positioned to face south and in direct sunlight and are aimed at supporting solitary bees.

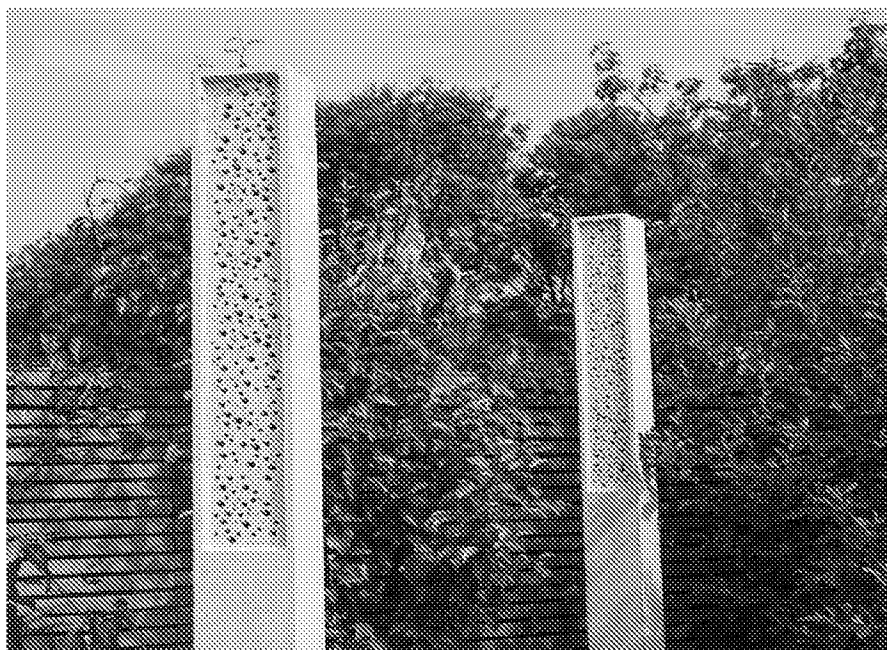


Figure 6: A bee post

- 5.28 The insect hotel / tower, as shown below in figure 7, can be used as an alternative to the free standing bee post.



Figure 7: An insect hotel

4.14 Nest boxes should also be installed to provide new nesting opportunities for birds and to achieve ecological enhancements in line with policies set out by the local planning authority. Such boxes include;

- Swift Box (Figure 8) can be established on the roof apex
- House Sparrow Box (figure 8) can be established on the roof apex

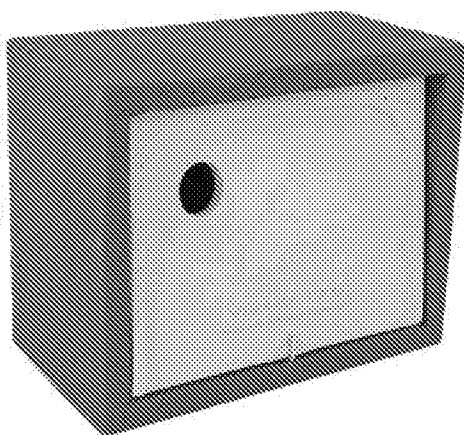


Figure 8 House Sparrow Box



And Swift box

4.15 Habitat opportunities for species such as birds and insects could also be created in the form of green walls, which would then increase foraging opportunities for invertebrates.

Climbing plants can be grown onto trellis around the edges of the site and on fences.

Species which can be planted include:

- Honeysuckle (*Lonicera japonica*; *L. fragrantissima*; *L. standishii*);
- Clematis (*Clematis vitalba*, *C. armandii*, *C. alpina*, *C. montana*, *C. tangutica*);
- Ivy (*Hedera helix*);
- Climbing hydrangea (*Hydrangea petiolaris*);
- Dog rose (*Rosa canina*).

6.0 Ecological Impact Assessment

6.1 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

6.2 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 influence, on identified ecological features and receptors. The proposals are subsequently reviewed and mitigation and compensation measures are outlined which help to reduce negative impacts.

6.3 The zone of influence of 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.

6.4 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 stepping stones

Baseline Ecological Conditions

6.5 The following important ecological features are identified within the wider landscape:

- Climping Beach SSSI;
- Arundel Park SSSI; and
- Pagham Harbour SSSI, SPA and Ramsar site.

6.6 There are no important ecological features present within/adjacent to the site. The habitats on site consisting of hardstanding, gravel substrate, scattered trees, scrub, semi-improved grassland and tall ruderal vegetation are common and widespread, and of no interest above site level. Consequently, these habitats are not considered further within the EcIA process.

6.7 The site was confirmed as supporting or considered to have **potential** to support the following protected species:

- Foraging and commuting bats – scattered trees and scrub;
- Nesting birds – scattered trees and scrub.

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
Climping Beach SSSI, Arundel Park SSSI and Pagham Harbour SPA, SSSI and Ramsar site	National	None required – proposed works will not have any effect on the statutory designated sites, due to the size, location and type of works proposed. The site falls outside of any SSSI impact zones and the 5km zone of influence for Pagham harbour SPA.	Not Significant
Commuting and foraging bats	Local	Sensitive lighting scheme and the retention of mature trees along the site boundaries as much as possible.	Not Significant

Badgers	Local	Precautionary method of works during construction.	Not Significant
Rabbits and foxes	Local	Should any burrows be identified during the vegetation clearance, these should be excavated by hand rather than using mechanical equipment.	Not significant
Nesting Birds	Local	Mitigating direct harm to nests by undertaking building works and removal of suitable vegetation outside of nesting bird season or after a check by a suitably qualified ecologist. Compensation in the form of the installation of bird boxes.	Not Significant

Cumulative impacts

6.8 The proposed development involves the construction of a new car showroom largely on an area of previously developed land, with other affected habitats of limited ecological value. The mature trees near the boundary features hold the most ecological value and it is recommended that these are retained where possible. Considering this, no direct impacts are anticipated and any indirect impacts, such as recreational pressure are not considered likely to be significant. The works are not considered likely to have any cumulative impact on the surrounding area or affect the ecology of adjacent habitats. Therefore, a development of this nature can be considered in isolation.

7.0 Conclusions

7.1 The site does not fall within any ecological statutory designations and there are none within 2km.. The closest statutory designations are the Climbing Beach SSSI and West Beach LNR which are c. 5 km from the site's red line boundary. Pagham Harbour SPA and SSSI is also located over 19km west of the site. Due to the nature of the development and the distances involved, no significant direct or indirect impacts are anticipated as a result of the proposed development.

6.2 Habitats of Principle Importance and Priority Habitats are present within the local surroundings, including ancient and semi-natural woodland, deciduous woodland, coastal and floodplain grazing marsh, reedbeds and lowland calcareous grassland. Due to

the separation of these habitats from the proposed development is it considered that the development will not result in any direct or indirect impacts on these habitats.

- 6.3 The habitats on site are common and widespread throughout the local area and the UK as a whole. Hard-standing and lined gravel substrates on site are considered to have very limited ecological value. The most ecologically valuable habitats are the scattered trees, scrub, semi-improved grassland and tall ruderal vegetation but this is considered to be only of site value. Recommendations have been made to retain and enhance the scattered trees close to the sites boundaries where possible and through the use of supplementary planting.
- 6.4 No evidence of badgers was found on site but they may venture on to site from the surrounding area. Precautionary methods of work have been outlined to take this species into consideration during proposed works.
- 6.5 None of the trees on site were considered to have potential for roosting bats, consequently no further surveys are recommended but a sensitive lighting is recommended.
- 6.6 Given the sub-optimal condition of the site for foraging and/ or commuting bats and the nature of current proposals and the surrounding landscape, it is considered that further activity surveys are not required, as long as suitable enhancement measures are implemented and the boundary features of dense scrub and scattered trees are retained where possible.
- 6.7 Birds are likely to nest within the trees and scrub on site. The removal of any of these habitats should be undertaken outside of the bird nesting season (March – September). If this is not possible, a qualified ecologist should re-check any potential nesting habitats immediately prior to their removal.
- 6.8 Rabbit droppings and two foxes were observed on site and it is likely that mammal holes are present within the scrub on site. The necessary precautionary measures have been outlined as this vegetation is to be removed under current proposals.

- 6.9 The site does not contain habitats and/or connectivity considered suitable for supporting reptiles, GCN, barn owls, dormice, water voles or otters, therefore no further surveys are recommended for these species.
- 6.10 Recommendations for enhancements have been made within this report, aimed at improving the ecological value of the site post development.

7.0 References

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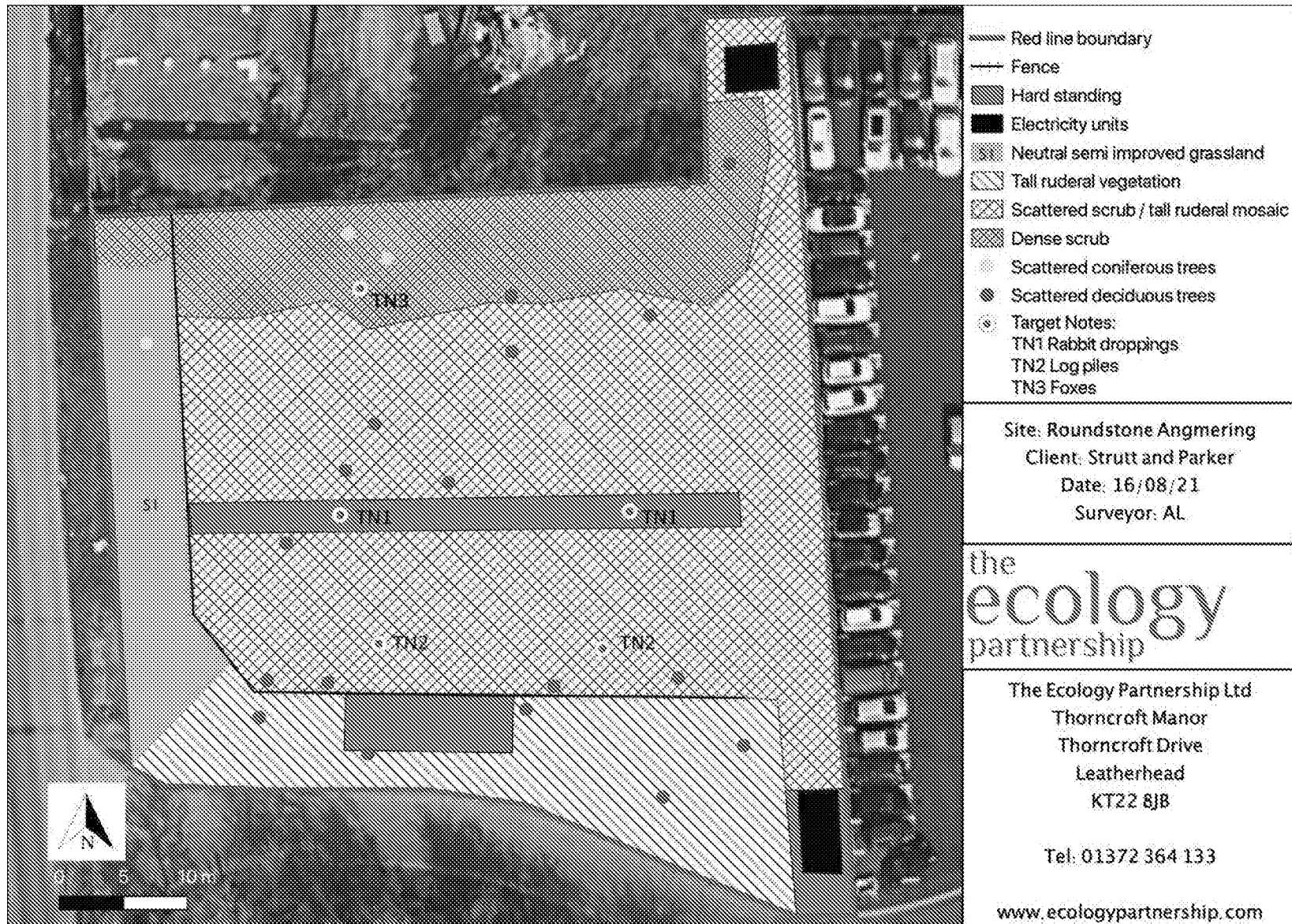
Internet resources:

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

Magic Interactive Map: www.magic.gov.uk

Arun District Council: www.arun.gov.uk

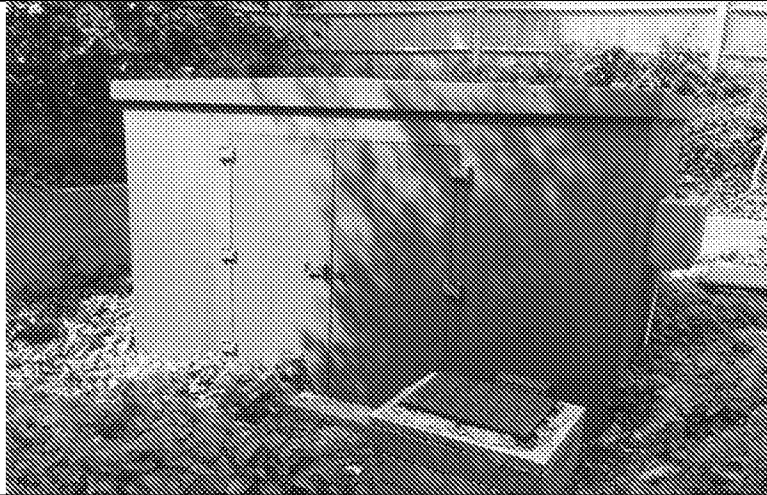
Appendix 1: Phase 1 Habitat Map



Appendix 2: Photos

Photograph 1:

Electricity unit
in the north east
corner of site.



Photograph 2:

One of the log
piles on site.



Photograph 3:

Scrub and tall
ruderal mosaic
from the centre
of site, facing
north east.



Photograph 4:

Overview of site,
facing north

**Photograph 5:**

A
section of the
hard-standing
running through
the centre of the
site.

**Photograph 6:**

Rabbit
droppings on a
section of the
degraded hard-
standing.



Photograph 7: Tall ruderal vegetation and scattered trees along the southern site boundary.	 A black and white photograph showing a field of tall, dense vegetation in the foreground. In the background, there are several trees and a white sign with text that reads: "Heddon Roadside Garden Project Entrance to Garden County Site 8203".
Photograph 8: Neutral semi- improved grassland along the western site boundary.	 A black and white photograph showing a field of tall grass. In the background, there are trees and a building with a gabled roof.
Photograph 9: Pond 1 located west of the red line boundary	 A black and white photograph showing a pond in a field. There are trees and a building in the background.

Appendix 3: Biodiversity Records Summary



Ecological Data Search SxBRC/21/454 - Summary Report

An ecological data search was carried out for land north of Roundstone Bypass, Angmering on behalf of Aimee Littlechild (The Ecology Partnership) on 24/08/2021.

The following datasets were consulted for this report:

	Requested	Radius/buffer size
Designated sites, habitats & ownership maps	Yes	2km
Protected, designated and invasive species	Yes	2km

Summary of results

Sites and habitats

Statutory sites	1 National Park
Non-statutory sites	2 LWS
Section 41 habitats	8 habitats
Ancient and/or ghyll woodland	Present

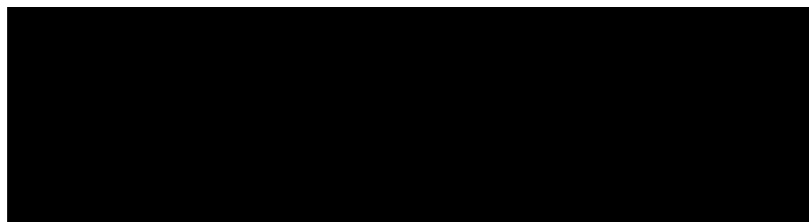
Protected and designated species

International designations	45 species	465 records
National designations	142 species	2,223 records
Other designations	264 species	4,005 records
Total	286 species	4,267 records
Invasive non-native	29 species	173 records

The report is compiled using data held by Sussex Biodiversity Record Centre (SxBRC) at the time of the request. SxBRC does not hold comprehensive species data for all areas. Even where data are held, a lack of records for a species in a defined geographical area does not necessarily mean that the species does not occur there – the area may simply not have been surveyed.

This summary page may be published.
 The full report and maps may not be published or otherwise shared.
 The data search report is valid until 24/08/2022 for the site named above.

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