



**103 Bournemouth Road,
Chandler's Ford, Eastleigh, Southampton**

Preliminary Ecological Appraisal

For Cordage 13 Ltd

By Arun Ecology Ltd

December 2022

Issuing Office

South East

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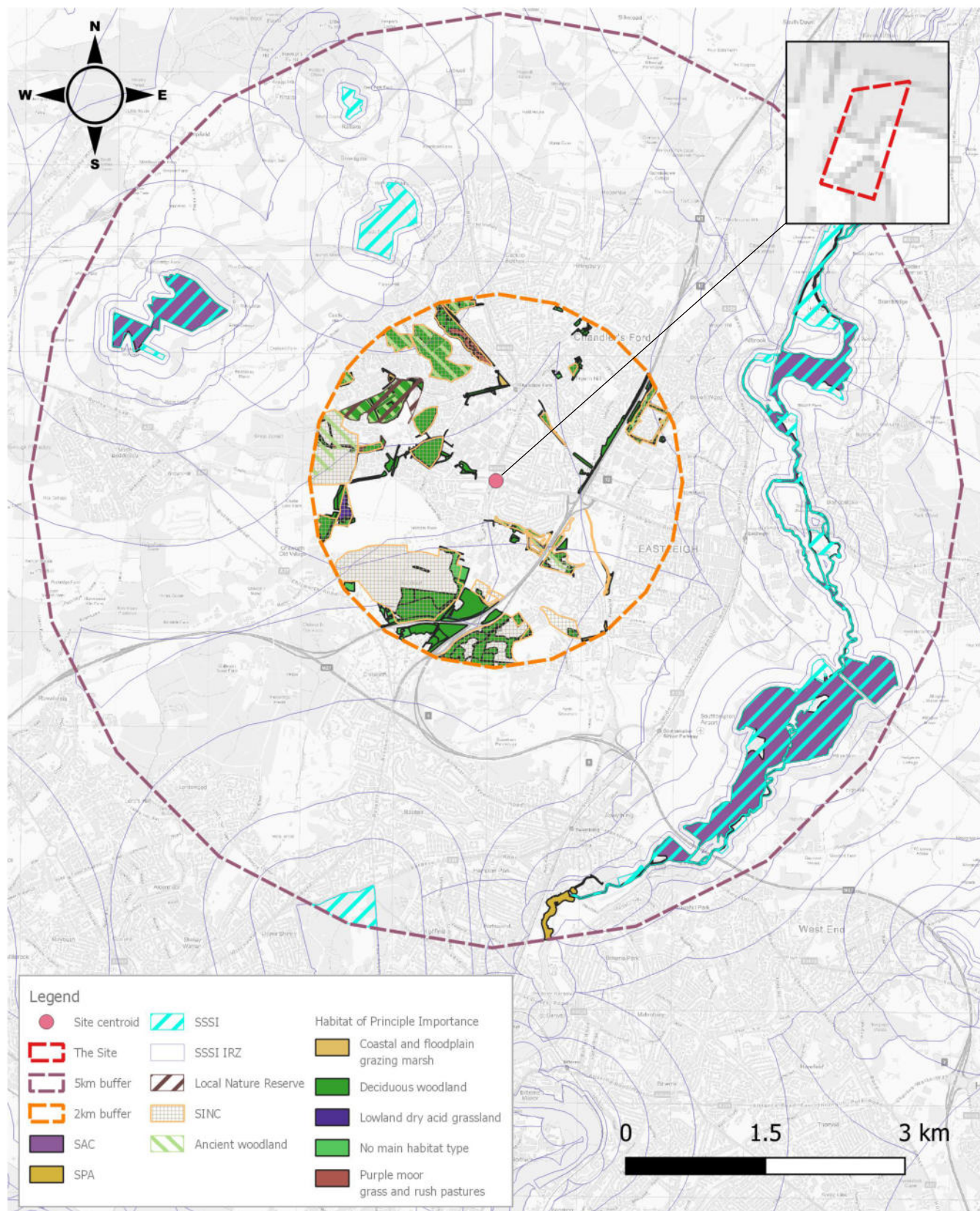
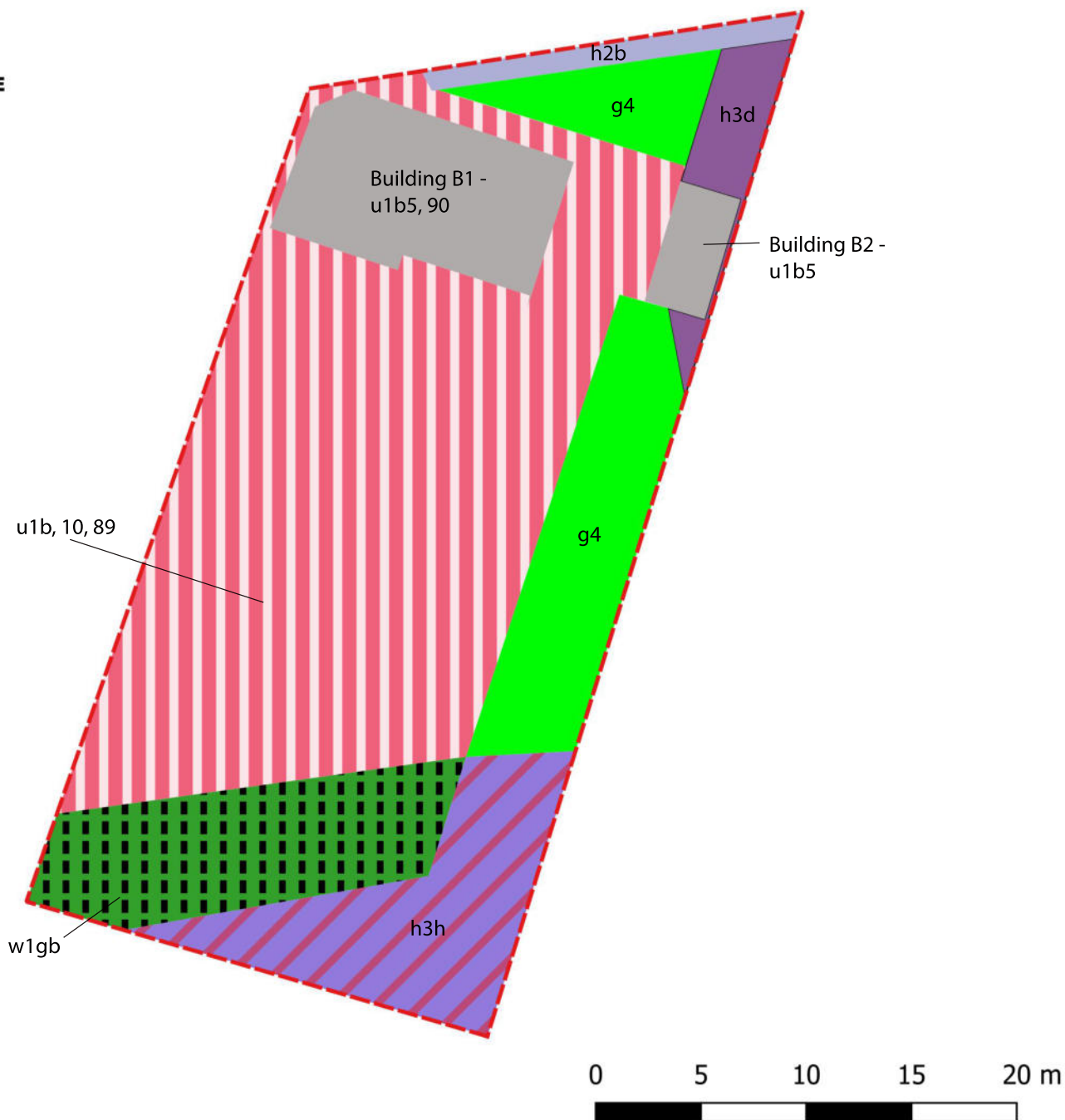
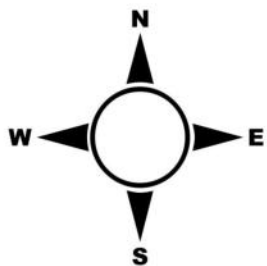


Figure Title			Client/Project no:	
Site location and desk study results			Cordage 13 Ltd - C-CGP-002-001	
Site Location			 enquiries@arunecology.com www.arunecology.com	
103 Bournemouth Road, Chandler's Ford, Eastleigh, Southampton SO53 3AJ.				
Figure no:	Revision no:	Scale:		
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Cartographer:	Date Drawn	Reviewed by:		
Joseph Baker	09/12/2022	Hannah Baker		



Legend

The site

UK Habitat Classification - Primary Codes

g4 - modified grassland

w1g6 - line of trees

h2b - other hedgerows

h3h - mixed scrub

u1b - developed land. sealed surface

u1b5 - buildings

h3d - bramble scrub

UK Habitat Classification - Secondary Codes

10 - Scattered scrub

89 - Car park

99 - Commercial building

Figure Title:

UK Habitat Classification Survey Results

Client/Project no:

Cordage 13 Ltd - C-CGP-002-001

Site Location:

103 Bournemouth Road, Chandler's Ford,
Eastleigh, Southampton, SO53 3AJ.

Figure no:

2a

Revision no:

001

Scale:

1:472

Cartographer:

Joseph
Baker

Date Drawn:

12/12/22

Reviewer:

Hannah
Baker

Picture 1: Modified grassland (g4, Figure 2a).



Picture 2: Line of trees (w1g6, Figure 2a).



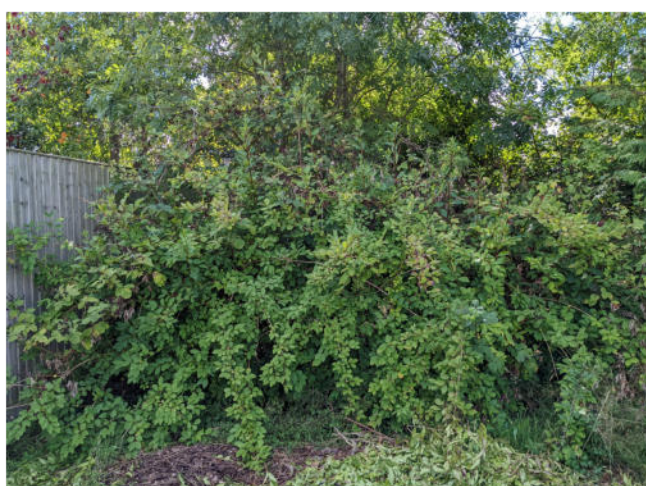
Picture 3: Hedgerow (h2b, Figure 2a)



Picture 4: Sealed surface (u1b, 10, 89, Figure 2a).



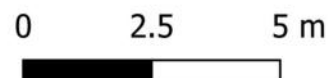
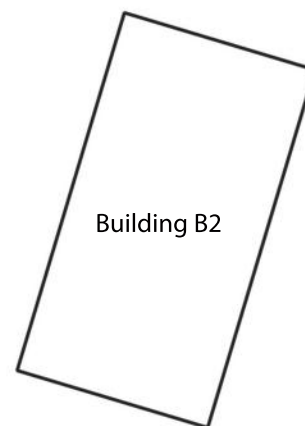
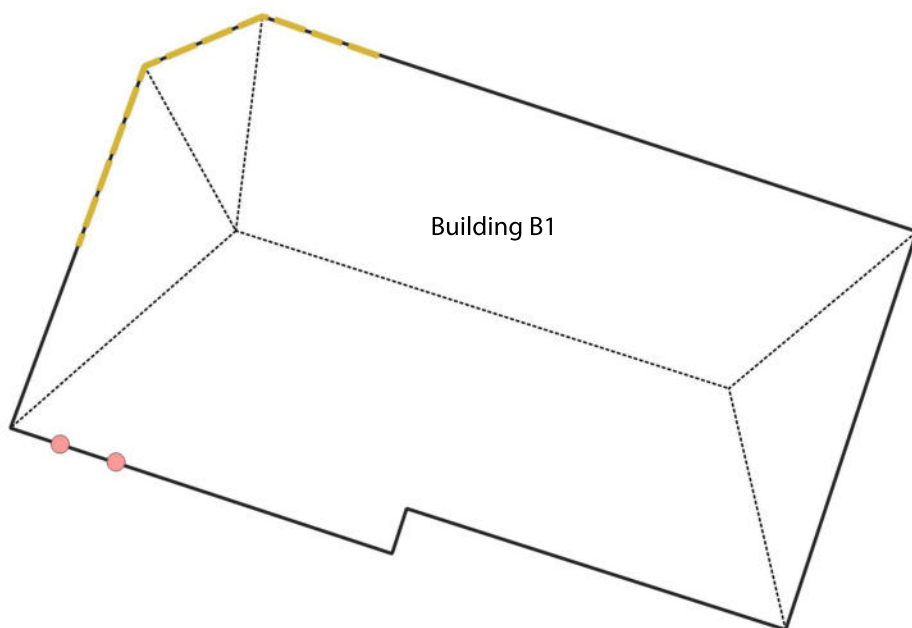
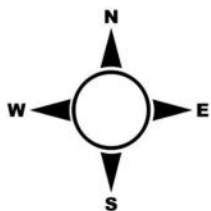
Picture 5: Mixed scrub (h3h, Figure 2a)



Picture 6: Bramble scrub (h3d, Figure 2a).



Figure Title			Client/Project no:	
UK Habitat Classification Survey - Photographs			Cordage 13 Ltd - C-CGP-002-001	
Site Location			 enquiries@arunecology.com www.arunecology.com	
103 Bournemouth Road, Chandler's Ford, Eastleigh, SOuthampton, SO53 3AJ.				
Figure no:	Revision no:	Scale:		
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Cartographer:	Date Drawn	Reviewed by:		
Joseph Baker	12/12/2022	Hannah Baker		



Legend

-  Building layout
-  Roof layout
-  Gap behind wooden boarding
-  Missing mortar

Figure Title:

Bat Preliminary Roost
Assessment Results

Client/Project no:

Cordage 13 Ltd - C-CGP-002-001

Site Location:

103 Bournemouth Road, Chandler's Ford,
Eastleigh, Southampton, S053 3AJ

Figure no:

3a

Revision no:

001

Scale:

1:201

Cartographer:

Joseph
Baker

Date Drawn:

12/12/22

Reviewer:

Hannah
Baker

Picture 1: Building B1 - Southern aspect.



Picture 2: Building B1- Northern aspect.



Picture 3: Building B1 - Eastern aspect.



Picture 4: Broken boarding Building B1 western aspect.



Picture 5: Missing mortar at front of end tile.



Picture 6: Building B2 on eastern boundary of the site.



Figure Title Preliminary Roost Assessment Photographs			Client/Project no: Cordage 13 Ltd - C-CGP-002-001	
Site Location 103 Bournemouth Road, Chandler's Ford, Eastleigh, Southampton SO53 3AJ			 enquiries@arunecology.com www.arunecology.com	
Figure no: 3b	Revision no: 001	Scale: n/a		
Cartographer: Joseph Baker	Date Drawn 12/12/2022	Reviewed by: Hannah Baker		



Legend

- Negligible tree locations
- The site

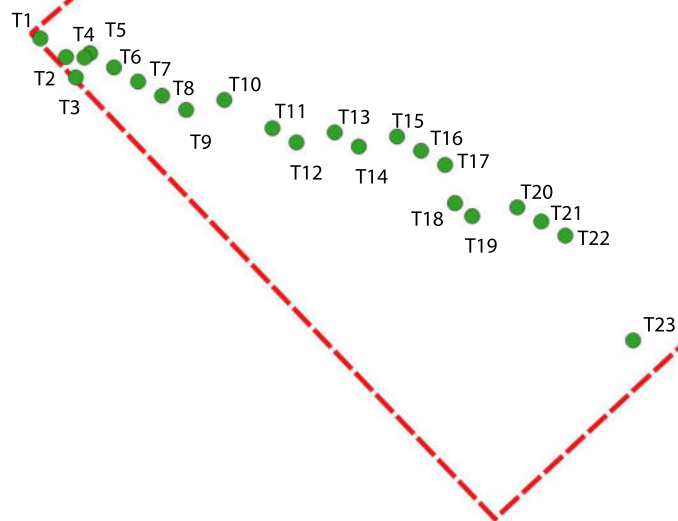


Figure Title:

Bat Preliminary Ground Level Tree
Roost Assessment Results

Client/Project no:

Cordage 13 Ltd - C-CGP-002-001

Site Location:

103 Bournemouth Road, Chandler's Ford,
Eastleigh, Southampton, S053 3AJ

Figure no:

4a

Revision no:

001

Scale:

1:497

Cartographer:

Joseph
Baker

Date Drawn:

12/12/22

Reviewer:

Hannah
Baker

1. Summary & Recommendations

1.1 Summary

- 1.1.1** Cordage 13 Ltd on behalf of their client are proposing the re-development of the 103 Bournemouth Road site, located on Bournemouth Road, Chandler's Ford, Eastleigh, Southampton SO53 3AJ (Grid reference: SU 43071 19658). The proposals include an extension to an existing commercial building, removal of a portable building within the site and re-landscaping of the site. Arun Ecology Ltd were commissioned by Cordage 13 Ltd to undertake a Preliminary Ecological Appraisal (PEA) comprising of a desk study search and a UK habitat Classification Survey of the site. A bat Preliminary Roost Assessment (PRA) of buildings and a bat Preliminary Ground Level Tree Roost Assessment (PGLTRA) of trees within the site was also included within the brief.
- 1.1.2** The Itchen Valley SAC, Emer Bog SAC and the Solent and Dorset Coast SPA are located within 5km of the site. The closest designated site was the Ratlake Meadows SSSI located 2.5km north of the site, with the site also falling within a SSSI Impact Risk Zone (IRZ). The nearest non-statutory designated site is the Titlark Copse SINC located 0.6km from the site. Three parcels of ancient woodland were found within 0.5km of the site, the nearest being 0.1km from the site. Seven categories of Habitats of Principle Importance (HPI) were returned from the desk study search, with the nearest HPI parcel being a small deciduous woodland located 0.2km from the site.
- 1.1.3** The primary and secondary UK Habitat Classification Survey habitat codes recorded within the site included modified grassland, mixed scrub, bramble scrub, treeline, other hedgerow, developed land sealed surface and buildings. None of the habitats recorded within the site at the time of the survey meet the criteria as HPI. It is our understanding that all habitats within the site will be subject to removal as part of the development, with the exception of a hedgerow on the northern boundary of the site and two trees within the site. As part of the developments landscaping plans the creation of a new grassland and the planting of hedgerows within the site is proposed.
- 1.1.4** The development will not result in any adverse direct or indirect impacts on designated sites, ancient woodland or HPI. This is because the development is small scale, commercial, retained within the site and there is sufficient distance between the site and any designated sites, ancient woodlands and HPI. Furthermore, no HPI were found within the site. The development will therefore be compliant with the legislation and planning policy for the above sites, without the need for an appropriate assessment with respect to the SAC and SPA or consultation with Natural England on nearby SSSI sites.

- 1.1.5** Based on the desk study and UK habitat classification results it is possible that the habitat on-site could act as an ecological receptor for nesting birds and individual hedgehogs. Building B1 within the site was assessed as having low suitability to support roosting bats during the PRA. Building B2 was assessed as having negligible potential to support roosting bats during the PRA. Furthermore, 23 trees were assessed as having negligible potential to support roosting bats within the site during the bat PGLTRA.
- 1.1.6** Further surveys will be required to assess the impact of the development on bats and their roosts with respect to Building B1 and ensure the development does not contravene the legislation and planning policy outlining the protection bats and their roosts. Mitigation will need to be incorporated into the enabling and construction phase of the development to ensure the development is compliant with the legislation and planning policy outlining the protection of nesting birds and hedgehog. As the site is disused, precautionary measures are outlined in this report in the unlikely event that mammal burrows (fox and rabbit) or badger setts are created prior to the commencement of the development or squirrel drey with young are encountered within the site.
- 1.1.7** The requirement for developments to incorporate ecological enhancements and achieve a net gain for biodiversity is set out in national and local planning policy. To ensure the development is compliant the relevant planning policy for ecological enhancements and biodiversity net gain the recommendations outlined in this report should be followed.

1.2 Recommendations

- 1.2.1** To ensure the development proceeds lawfully the recommendations outlined below should be followed:

Further Surveys

- 1.2.2** Further surveys in the form of bat dusk emergence and/or dawn re-entry surveys to determine the presence/ probable absence of bats from Building B1 should be undertaken. In line with BCT Good Practice Guidelines (Collins, 2016), a single survey should be undertaken between May-August for a building classified as having low roost suitability.

Mitigation

- 1.2.3** Site clearance (including vegetation and buildings) should take place between September – March, which is outside of the typical breeding bird season (April –

September). If it is not possible to avoid completing works during the breeding bird season the works should take place under a Precautionary Method of Works (PMoW). The PMoW should include a toolbox talk to stakeholders and contractors involved in the construction phase of the development on how to safeguard nesting birds during the construction phase of the development and include a pre-works inspection to check the proposed work area for nesting birds. Provisions for the safeguarding of hedgehogs should also be included within the PMoW and tool box talk.

- 1.2.4** As a precaution the PMoW should include actions to be taken in the unlikely event that a mammal burrow for rabbit and fox or badger sett is found within the site prior to the commencement of the development. The PMoW should include any monitoring requirements, and in the case of badgers, the appropriate licencing requirements. Furthermore, the PMoW should include the procedure to follow if squirrel dreys with young are found within the site.

Biodiversity Net Gain and Ecological Enhancements

- 1.2.5** Eastleigh Borough Council should be consulted on the requirement for the development to deliver Biodiversity Net Gain (BNG) in reference to Policy DM11 of the Eastleigh Borough Council Local Plan 2022.
- 1.2.6** If BNG is required for the development a BNG assessment should be undertaken using the most recent Natural England Biodiversity Metric to calculate the percentage change in the pre and post development biodiversity units (based upon the landscaping plans for the development, drawing ref: 22.3377.100).
- 1.2.7** The BNG assessment should be included within a combined BNG and ecological enhancement plan. The plan should also include the following ecological enhancements:
- Incorporate two bat boxes for crevice dwelling bat species within unlit areas of the site or as part of Building B1. Alternatively four bat tiles could be installed to the roof of Building B1;
 - Two swift boxes and one starling box to be incorporated within the design of Building B1;
 - Incorporate four solitary bee bricks or boxes within the site;
 - Incorporate a 13cm x 13cm gap into any permanent boundary fencing to allow the movement of small animals including hedgehogs;

-
- Incorporate the planting of native species as part of the development and undertake the removal of non-native plants (including the replacement of non-native plants with native species) within the site;
 - Incorporate a sensitive light regime into the design of the development to retain dark areas within the site and reduce light pollution and overspill (see ILP and BCT (2018) Guidance Note 08/18 Bats and Artificial Lighting in The UK); and
 - It may be possible to create additional vertical habitat (green walls) within the site with the use of native climbing plants on the new building or on the eastern and southern boundaries of the site.

2. Introduction

2.1 Development Background

2.1.1 Cordage 13 Ltd on behalf of their client are proposing to undertake the re-development of the 103 Bournemouth Road site, (Grid ref: SU 43071 19658) located at Bournemouth Road, Chandler's Ford, Eastleigh, Southampton SO53 3AJ (See Figure 1). The land at 103 Bournemouth Road is hereafter referred to as 'the site' in this report.

2.1.2 The site comprises an area of approximately 0.1ha that was formerly used as a commercial property, but is now unoccupied. The site is located in an urban setting and is directly bordered by Bournemouth Road to the west and north. The site is surrounded by residential properties, with a large industrial complex to the north-west. The wider area within 500m from aerial imagery appears to be a mix of residential properties and roads.

2.1.3 The site falls under the governance region of Eastleigh Borough Council (EBC).

2.2 Development proposals

2.2.1 Cordage 13 Ltd on behalf of their client seeks outline planning consent for the intended development. A planning application has been submitted prior to the issue of this report in December, 2022 (Planning number: F/22/94159) that includes the following proposals:

- Part single, part two storey extension to an existing commercial building;
- Removal of a further temporary/ portable building within the site;
- Re-landscaping of the site as per drawing reference: 22.3377.100 (PLC Architects, 2022). The landscaping plans include reconfiguration of a car park, creation of cycle storage, creation of new grassland and hedgerow habitats, retention of a hedgerow and two mature trees.

2.2.2 The proposals outlined in this section of the report will hereafter be referred to collectively as the development.

2.3 Ecology Background

2.3.1 A Preliminary Ecological Appraisal was undertaken at the site by Peach Ecology and Environmental Services Ltd in 2019 (Peach Ecology & Environmental Services, 2019). The site was assessed as being suitable for nesting birds. The habitats recorded

during the field survey for the PEA included amenity grassland, hardstanding, bramble, hedgerow and trees. The building within the site was given negligible potential to support roosting bats.

2.4 Health & Safety Background

2.4.1 The possible presence of asbestos containing materials (ACMs) within a building on the site was reported in a survey undertaken (JTEC Environmental Ltd., 2022). It was also reported to Arun Ecology Ltd that construction debris that could contain ACMs had been fly-tipped on the site. The fly tipped material was confirmed to have been removed by Cordage 13 Ltd prior to Arun Ecology Ltd attending site.

2.5 Brief and Objectives

2.5.1 Arun Ecology Ltd were commissioned on the 13th of September 2022 by Cordage 13 Ltd to undertake a Preliminary Ecological Appraisal (PEA), bat Preliminary Roost Assessment (PRA) and bat Preliminary Ground Level Tree Roost Assessment (PGLTRA) at the site. The purpose of the PEA, bat PRA and bat PGLTRA is to inform the planning application for the development at the site.

2.5.2 The key objectives of a PEA, as per CIEEM guidance (CIEEM, 2017) are as follows:

- Identify the likely ecological constraints associated with the development;
- Identify any mitigation measures likely to be required, following the 'mitigation hierarchy', as per BS42020:2013 Clause 5:2 (BSI, 2013);
- Identify any additional surveys that may be required to inform an Ecological Impact Assessment (ECiA); and
- Identify the opportunities offered by the development to deliver ecological enhancements and net gains for biodiversity.

2.5.3 The key objectives of the bat PRA and PGLTRA, as per Bat Conservation Trust Good Practice Guidelines (Collins, 2016) are as follows:

- Determine the actual or potential presence of bats;
- The need for further bat dusk emergence and/or dawn re-entry surveys; and/or
- The need for any bat mitigation.

2.5.4 The brief was to:

- Carry out an ecological desk study obtaining and purchasing records of designated sites, protected species and other species of conservation concern;
- Undertake a UK Habitat Classification survey to record any habitats within the site and other areas that could be impacted by the development;
- Make an assessment of the sites habitat to act as an ecological receptor for protected species and other species of conservation concern;
- Undertake a PRA and PGLTRA for bats. The PRA will include an external survey, and where safe to do so an internal inspection of the buildings on site, and the PGLTRA a ground level inspection of the trees on-site. The PRA and PGLTRA will comprise of a systematic search of the exterior of the structure of tree to identify potential or actual bat access points and roosting places, and to locate any evidence of bats (such as live or dead specimens, bat droppings, feeding remains, urine splashes, fur oil staining and/or noises made by bats such as social calls);
- Provide a combined PEA, PRA and PGLTRA report that presents the methods and results of the desk study, UK Habitat Classification survey and external and internal inspections of buildings and furthermore, ground level inspection of trees at the site. The report will also include an evaluation of the sites nature conservation value, an initial impact assessment of the development and any recommendations, including opportunities for ecological enhancement and net gains for biodiversity; and
- Provided digitised mapping of the site and all survey results.

3. Method

3.1 Preliminary Ecological Appraisal

General Approach

- 3.1.1** The PEA was carried out in accordance with the CIEEM Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017) and the CIEEM Guidelines for Ecological Impact Assessment (CIEEM, 2018).

Desk Study

- 3.1.2** The study area for the desk study at this stage of the development is based upon a provisional 'zone of influence'. 'The 'zone of influence' is defined as per CIEEM guidance 'the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities' (CIEEM, 2018).
- 3.1.3** The final 'zone of influence' for the development will require updating in line with the finalised design of the development and any subsequent amendments.
- 3.1.4** The provisional zone of influence for the development where data was sought is set as the following:
- Statutory designated sites including RAMSAR, Special Conservation Areas (SACs) and Special Protection Areas (SPAs), including potentially designated sites - 5km;
 - All other statutory and non-statutory designated sites – 2km;
 - Habitats of Principle Importance (HPI) - 2km
 - Ancient woodland - 2km;
 - Ponds - 500m;
 - Rivers - 1km; and
 - Protected Species, Species of Principle Importance (SPI) and other species of conservation concern – 2km and;
 - Granted European protected species licences – 2km.
- 3.1.5** Sources of information within the study area for the desk study were as follows;

- The Multi-Agency Geographical Information for the Countryside (MAGIC);
- Government open source GIS datasets;
- EBC Local Plan (2022);
- EBC Biodiversity Supplementary Planning Document (EBC, 2009);
- Satellite images (powered by google via QGIS 3.1); and
- Purchased records from Hampshire Biodiversity Information Centre (HBIC).

3.1.6 Requests for information were sent to HBIC on 26th September 2022, with returns received on the 27th September 2022.

UK Habitat Classification

3.1.7 The study area for the UK Habitat Classification Survey was defined as the entire area of the site (see Figure 2a).

3.1.8 The UK Habitat Classification System (Butcher et al, 2020a) was used to record the habitat types within the site. The UK Habitat classification has 5 hierarchical levels of habitat classification that aligns with those outlined under national legislation and planning policy. Habitats were mapped in the field using the primary habitat codes described in the UK Habitat Classification System professional edition (Butcher et al, 2020b) to level 4 or 5.

3.1.9 Secondary habitat codes were assigned along with primary habitat codes to provide additional context where the habitat contained additional features that deviate from the primary classification.

3.1.10 A fine scale Minimum Mapping Unit (MMU) was deemed an appropriate level for mapping habitats, i.e. habitat was only mapped if it was greater than 25m² or 5m in length.

3.1.11 To identify each habitat, the dominant plant and other readily identified species were recorded and their abundance within the site was measured using the DAFOR scale (Stace, 2019);

- D – Dominant
- A – Abundant
- F – Frequent

- O- Occasional
- R - Rare

3.1.12 Target notes where recorded and mapped for any habitats that were smaller than the minimal mappable unit in the UK Habitat Classification System and for any interesting ecological features on site that fall outside of the classifications primary and secondary habitat codes.

3.2 Bat Preliminary Roost Assessment (Structures) and Preliminary Ground Level Tree Roost Assessment (Trees).

General Approach

3.2.1 The bat PRA and PGLTRA was carried out in accordance with the Bat Conservation Trust Good Practice Guidelines for Ecologists (Collins, 2016). Any deviations and limitations in respect of best practice are outlined in section 3.5.

Searching for Signs for bats

3.2.2 Where accessible evidence of bats was searched for during the bat PRA and PGLTRA which including:

- Live and dead specimens in PRFs (where accessible);
- Bat droppings in and around or below PRFs;
- Staining caused by bat urine splashes and fur oil below PRFs;
- Odour emanating from any PRFs
- Noises made by bats such as social calls.

External Inspection (Structures)

3.2.1 The following information was collected for each building during the external inspection:

- The type of building;
- Approximate or confirmed age;
- Roof type; and

- Construction materials.

3.2.2 A systematic search of the exterior of each building for PRFs that might provide suitable crevices or access to voids or cavities for roosting bats was undertaken from ground level with the aid of torchlight and binoculars. The PRFs searched for included any:

- Lifted, missing or damaged tiles such as roof, ridge and hanging tiles;
- Lifted lead flashing associated with the roof valleys, ridges and hips, or where lead flashing replaces tiles;
- Gaps between fascia boards and soffit boxes and associated walls or timber structures;
- Gaps resulting from missing mortar in brickwork and under tiles (particularly ridge tiles and on gable ends);
- Spaces between any weatherboarding and cladding and/or timber frames and brick/stone walls;
- Cracks and gaps in walls and timber frames or any other building feature (such as chimneys);
- Gaps behind window frames, lintels and doorways; and
- Open or missing hatches, doors or windows that provide direct lines of flight in the building's interior for bats.

3.2.3 The search for evidence of bats during the external inspection focused in particular on the following areas:

- The ground, beneath windowsills, window panes, walls, behind peeling paintwork or lifted rendering, hanging tiles, weatherboarding, eaves, soffit boxes, fascia's, lead flashing, gaps under felt, under tiles/slates and in existing bat boxes; and
- Any gaps in brickwork, stonework or wooden cladding that may allow access to internal wall crevices and cavities that was accessible to surveyors.

Internal Inspection (Structures)

- 3.2.4** Where safe to do so, a systematic search was made of the interior of the structure to identify actual and potential bat access points and roosting places and to locate evidence of bats.
- 3.2.5** Information on any roof voids, or internal rooms inspected were made during the internal inspection. The information recorded included:
- The dimensions of the void or room;
 - A description of any internal materials such as roof membrane or linings, insulation and supporting structures such as roof timbers or steels.
- 3.2.6** The search for evidence of bats during the internal inspection focused in particular on the following areas:
- The floor and surfaces or any objects (including boxes, water tanks etc);
 - All roof timbers (including ridge and hip beams, rafters and purlins as well as any junctions);
 - Gaps between roof timbers and brickwork and any gap in brickwork (including chimneys);
 - Behind tiles and roof lining (if accessible); and
 - The top of gable ends and dividing walls.

Ground Level Inspection of Trees

- 3.2.7** The following information for trees was recorded during the ground level inspection of trees:
- The species of tree;
 - Approximate of age of the tree;
 - Number of stems; and
 - Notes on the tree health & conditions (to inform survey design and the potential for tree climbing inspections to supplement the ground level inspection).

3.2.8 A systematic search was undertaken from ground level with the aid of torchlight and binoculars for each tree within the site that might provide suitable crevices or access to voids or cavities for roosting bats. The PRFs searched for included any:

- Woodpecker holes and rot holes;
- Hazard beams ;
- Other vertical or horizontal cracks and splits (such as frost-cracks) in stems or branches;
- Partially detached and plate by bark;
- Knot holes arising from naturally shed branches, or branches previously pruned back to the branch collar;
- Manmade holes (e.g cavities that have developed from flush cuts) or cavities created by branches tearing out from parent stems;
- Cankers (caused by localised bark death) in which cavities have developed;
- Other hollows or cavities, including butt-rots;
- Double-leaders forming compression forks with included bark and potential cavities;
- Gaps between overlapping stems or branches;
- Thick ivy and partially detached ivy with stem diameters in excess of 50mm; and any; and
- Any artificial boxes placed on a tree for bats, birds or dormouse.

3.2.9 Information on each PRF recorded:

- The height of the feature above ground level;
- The orientation of the feature in relation to the trunk; and
- The orientation of the access to the PRF.

Roost Suitability Classification

3.2.10 A classification based upon bat roosting suitability was assigned for each tree that was inspected within the site. The classification descriptions are detailed in Table 1.

Table 1 - Bat roost suitability classification for structures and trees as adapted from BCT Good Practice Guidelines (Collins, 2016).

Bat Roost Suitability Classification	Description
Negligible	Negligible (unsuitable) habitat features on site that are unlikely to be used by roosting bats.
Low	A structure with one or more potential roosting sites that can be used by individual bats opportunistically. Generally, these would be built post-1960 using modern construction methods. Where crevices are present, these are generally exposed and of a size and character that would only offer protection for a small number of bats on an occasional basis due to the size and condition of the PRFs. A tree of sufficient size or age to contain PRFs but with none seen from ground or features seen with only very limited roosting potential. Habitat connectivity from the PRFs to the wider landscape is generally poor. The roosting habitat is generally located in an area with high disturbance or lighting.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, condition and surrounding habitat, but unlikely to support a roost of high conservation status (with respect to roost type only – the assessment in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure or tree with one or more PRFs that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, condition and surrounding habitat.

3.2.11 Possible types of bat roost were also given for each structure or tree within the site as per the definitions given in Table 2.

3.2.12 Each structure and tree was classified by the highest level of suitability of the possible roost types.

Table 2 - Bat roost type definitions as adapted from BCT Good Practice Guidelines (Collins, 2016).

Roost Type	Definition
Day roosts	Where bats shelter as individuals or small groups of males but are rarely found at night.
Feeding roost	Used by individuals or small groups for feeding, rarely used during the day.
Hibernation roost	Where bats are found individually or in groups during winter. These need to have a cool temperature and high humidity.
Maternity roost	Mainly dominated by females where they give birth to young and raise them. Maternity roost characteristic preferences differs between species, however warm conditions are generally favoured.
Night roosts	Where bats shelter at night by individuals or a whole colony, rarely used in the day.
Satellite roost	An alternative roost found in close proximity to the main nursery colony, used by a few individual breeding females to small groups of breeding females throughout the breeding season.
Transitional/ Occasional roost	Used by a few individuals or small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.

3.3 Survey Date(s) and Conditions

3.3.1 Details on the date timing and conditions recorded during the survey are provided below in Table 3.

Table 3 - Preliminary Ecological Appraisal, bat Preliminary Roost Assessment and bat Preliminary Ground Level Tree Roost Assessment survey Information.

Date	Survey Type	Survey Timings		Temperature (°C)		Rain	Wind (Beaufort scale)
		Start	Finish	Start	Finish		
29/09/22	PEA , PRA and PGLTRA.	10:30	16:00	12	15	Dry	2

3.4 Surveyors

3.4.1 The PEA and bat PRA and bat PGLTRA were undertaken by Hannah Baker BSc (Hons) MSc ACIEEM. Hannah Baker also holds a level 2 class licence to survey bats.

3.4.2 Limitations and deviations

Preliminary Roost Assessment (Structures) – Building B1.

3.4.3 It was not possible to undertake the full internal inspection of Building B1 (see Figure 2a) as part of the bat PRA due to access and for health and safety reasons. The area of Building B1 not inspected included the loft spaces as the roof voids are completely sealed and are not accessible via a loft hatch. An asbestos survey of the structure concluded the likely presence of ACMs, but did not include an inspection of the roof voids (as they were not accessible) in building B1. As such it was not deemed safe to undertake invasive entry into the roof voids for the purpose of a PRA in the absence of the aforementioned information as a full risk assessment of the roof voids was not possible.

3.4.4 In our professional judgement this deviation from BCT good practice guidelines is justified and can be appropriately mitigated as follows:

- BCT Good practice guidelines clearly state '*where safe, a systematic search should be made of the interior of the structure*'. BCT guidelines go on to state '*the status of the structure (with respect to the structural integrity) should be established prior to the visit but, during the external inspection, this information should be corroborated and any new information be added to the risk assessment*'.
- Presence/ likely absence of bats can be determined with dusk emergence and dawn re-entry surveys undertaken at the appropriate time of year, covering the areas of Building B1 that could not be appropriately risk assessed for the internal inspection; and

- Bat dusk emergence & dawn re-entry surveys are often required in addition to a PRA to fully characterise the roost type and the number of bats using a structure. As such, the required information to determine the impacts of the development on bats and any licencing requirements is still possible with bat dusk emergence and dawn re-entry surveys.

4. Baseline Ecological Conditions

4.1 Desk study

Designated Sites

- 4.1.1** The results of the desk study search for statutory and non-statutory designated sites are detailed below in Table 4.
- 4.1.2** Six statutory designated sites were returned within 5km of the site, the closest being the Ratlake Meadow SSSI which is located 2.5km from the site. The site falls within 5km of 2 SAC and 1 SPA site. The site also falls within a SSSI IRZ. No statutory designated sites were returned in the desk study search within the site.
- 4.1.3** Twenty five non-statutory sites were returned from the desk study search within 2km of the site. The closest non-statutory designated sites to the site are the Titlark Copse and Northend Copse (East & West of Flyover), which are both 0.6km from the site.

Table 4 - Records returned from the desk study search for Statutory and non-statutory designated sites.

Statutory and Non Statutory Sites			
Designation level	Site Name	Distance & Direction	Summary
Statutory designated sites			
SAC and SSSI (including SSSI IRZ)	River Itchen	2.7km – East.	The River Itchen is an area (303.98ha) primarily designated for its water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation. Species that form the primary reason for designation include southern damselfly (<i>Coenagrion mercurial</i>) and bullhead (<i>Cottus gobio</i>). White clawed crayfish (<i>Austropotamobius pallipes</i>), brook lamprey (<i>Lampetra planeri</i>), Atlantic salmon (<i>Salmo salar</i>) and otter (<i>Lutra lutra</i>) are further qualifying features but do not form the primary reason for designation.

			There is a SSSI IRZ (Object ID: 28153) that could be associated with the site and that the site falls within.
SAC and SSSI (including SSSI IRZ)	Emer Bog	3.9km – West.	Emer Bog is an area (36.76ha) that is designated for its transition mires and quaking bogs. There is a SSSI IRZ (Object ID: 28153) that could be associated with the site and that the Site falls within.
SPA	Solent and Dorset Coast	4.9km – South.	The Solent & Dorset Coast is a large area of coastline 88,980.55ha in size. A small section falls within 5km of the site. The qualifying features include sandwich tern (<i>Thalasseus sandvicensis</i>), common tern (<i>Sterna hirundo</i>) and little tern (<i>Sternula albifrons</i>).
SSSI	Southampton Common	4.4km – South.	Southampton Common is an area of 89.9ha (Grid reference: SU 414 146). Designated for its amphibian assemblage including great crested newts (<i>Triturus cristatus</i>) and assemblage of habitats in an urban context that includes lowland dry heath, lowland neutral grassland and lowland wood pasture and parkland.
SSSI	Ratlake Meadow	2.5km – North.	Batlake Meadows is an area of 4.5ha (Grid ref: SU 415236) designated for its unimproved lowland meadows. Batlake meadows is also known for its assemblage of invertebrates.
SSSI	Trodds Copse	4.1km – North.	Trodds Copse SSSI is two areas of 24.23 and 62.34ha (Grid ref: SU 417 224) that comprises ancient semi-natural woodlands, unimproved meadows and flushes. It also has a diverse plant and invertebrate community.
Non-statutory designated sites			
Local Nature Reserve (LNR)	Valley Park Woodlands	1km and 1.2km – West.	Site reference: 1082451. Two land parcels covering a combined 24.83ha.
SINC	Great Covert	1.5km – West.	Site reference: TV0506. Grid reference: SU40902010.
SINC	Austins Copse, Chilworth	1.8km – South west.	Site reference: TV0508. Grid reference : SU41001920.
SINC	The Rough	1.5km – South west.	Site reference: TV0517. Grid reference: SU41401930

SINC	Tredgoulds Copse	1.8km – North west.	Site reference: TV0518. Grid reference: SU41402080.
SINC	Sky's Wood	1.9km – North west.	Site reference: TV0520. Grid reference: SU41502120.
SINC	East of Great Covert	1.2 km – West.	Site reference: TV0524. Grid reference: SU41702000.
SINC	Zionshill Copse	1.2km – West.	Site reference: TV0526. Grid reference: SU41802040.
SINC	Knight Wood/Clothier's Copse	1.6km – North.	Site reference: TV0529. Grid reference: SU41852130.
SINC	Hut Wood	0.8km – South.	Site reference: TV0531. Grid reference: SU42301860.
SINC	Titlark Copse	0.6km – West.	Site reference: TV0532. Grid reference: SU42302000.
SINC	Small Profits	0.9km – West.	Site reference: TV0533. Grid reference: SU42302030.
SINC	Ramalley Piece/Badger's Copse	1.1km – North west.	Site reference: TV0535. Grid reference: SU42402100.
SINC	Lower Flexford Nature Reserve	1.4km – North west.	Site reference: EA0002. Grid reference: SU42502125.
SINC	Ramalley Copse	1.8km – North west.	Site reference: EA0004. Grid reference: SU42702150.
SINC	Freespace Hicknor Hill.	1km – South.	Site reference: EA0005. Grid reference: SU42901850.
SINC	Home Wood.	1.5km - South	Site reference: TV0543. Grid reference: SU43001780
SINC	Home Wood (Eastleigh extension).	1.45km – South.	Site reference: EA0144. Grid reference: SU43301817.
SINC	Northend Copse (East & West of Flyover).	0.6km – South east.	Site reference: EA0008. Grid reference: SU43501900.
SINC	Woodland between railway & Monks Brook	0.8km – North east.	Site reference: EA0009. Grid reference: SU43602030.
SINC	Chestnut Avenue Meadow.	1.5km – South east.	Site reference: EA0010. Grid reference: SU43801810.
SINC	Fryernhill Wood.	1.4km – South west.	Site reference: EA0011. Grid reference: SU43882085.
SINC	Monks Brook, Fleming Park.	1.3km – South east.	Site reference: EA0153. Grid reference: SU44151889.

SINC	Boyatt Wood – Woodside Avenue Extension	1.8km – North east.	Site reference: EA0143. Grid reference: SU44822020.
SINC	Boyatt Wood, Eastleigh	1.8km – South west.	Site reference: EA0016. Grid reference: SU44902100.

Habitats of Principle Importance

- 4.1.4** There were 236 parcels of seven HPI categories returned from the desk study search within 2km of the site. No records for HPI were returned from the desk study within the site. The closest HPI was a deciduous woodland land parcel located 0.2km from the site.
- 4.1.5** Details on the number of HPI land parcels, the habitat type and the distance from the site are detailed in Table 5.

Table 5 - Desk Study – Habitats of Principle Importance.

Habitat of Principle Importance			
Habitat Type	Number of HPI Parcels within 5km	Distance & Direction of nearest HPI parcel	Nearest HPI land parcel information and other notes.
Coastal floodplain grassland	11	0.9km - North	The nearest parcel is a 0.78ha area (Grid ref: SU4144819340). The land parcel is a grassland or rush pasture containing a network of river channels, ditches or drainage channels.
Deciduous woodland	209	0.2km - West	The nearest land parcel is an area of 0.43ha (Grid ref: SU4275019751). There are 4 deciduous woodland parcels within 500m of the site.
Lowland dry acid grassland	7	1.2km - North	The nearest parcel is an area 2.21ha in size (Grid ref: SU4144819340) with >50% cover of lowland dry acid grassland.
No main habitat category - Lowland heathland.	1	1.1km - South	The nearest parcel is an area of 0.27ha (Grid ref: SU4227318706).

No main habitat category -Reedbed	1	1.3km – North west	The nearest parcel is an area of 0.29ha (Grid ref: SU4220920720)
Purple moor and rush pastures	7	1.2km - North	The nearest parcel is an area of 1ha (Grid ref: SU4291120968). There are three further areas of purple moor grass and rush pasture that adjoin the nearest parcel.

Ancient Woodland

- 4.1.6** There were 20 ancient woodland parcels returned from the desk study search within 2km of the site. No ancient woodland land parcels were returned within the site from the desk study search.
- 4.1.7** The closest ancient woodland land parcel (ID1488938) is located approximately 0.3km from the site. Details of the ancient woodland land parcels including the land parcel ID, size and distance from the site are given below in Table 6.

Table 6 - Ancient Woodland parcels within 2km of the site.

Ancient Woodland land parcels within 2km of the site.				
Ancient Woodland inventory ID	Area (ha)	Distance and direction from site	Grid reference	Notes
1487283	0.28	0.8km – South east	SU 43501 18897	
1487571	4.72	1.6km – North west	SU 42007 21164	
1487967	0.14	1.5km North east.	SU 44569 20276	Forms part of the larger Boyatt woodland area.
1488250	0.2	1.7km North east	SU 44650 20515	Forms part of the larger Boyatt woodland area.
1488270	14.43	1.1km North west	SU 42455 21003	
1488317	1.81	0.5km – South east	SU 43526 19025	

1488336	0.18	1.7km – North east	SU 44658 20491	Forms part of the larger Boyatt woodland area.
1488789	0.20	1.5km – North east	SU 44614 20094	Forms part of the larger Boyatt woodland area.
1488938	1.34	0.3km -South east	SU 43230 19183	
1489151	1.14	0.9km – South east	SU 43776 18820	Forms part of Flemming Park Parkland.
1489534	0.83	1.8km -North east	SU 44869 20309	Forms part of the larger Boyatt woodland area.
1489808	0.23	0.9km – South east	SU 43636 18846	Forms part of Flemming Park Parkland.
1489923	0.74	1.4km – North east	SU 44523 20258	Forms part of the larger Boyatt woodland area.
1487387	0.14	1.7km - North	SU 42611 21450	This ancient woodland parcel forms part of Ramalley Copse.
1487388	2.06	1.8km - North	SU 42611 21450	This ancient woodland parcel forms part of Ramalley Copse.
1489209	4.83	1.8km – North west	SU 41380 20783	This ancient woodland parcel forms part of. Tredsgoulds Copse .
1488291	3.03	1.9km – West	SU 41043 20118	This ancient woodland parcel forms part of Zionhill Copse
1488293	4.80	1.4km – North West	SU 41597 20386	This ancient woodland parcel forms part of Zionhill Copse.
1488294	10.02	1.2km – North west	SU 41933 20510	This ancient woodland parcel forms part of Zionhill Copse.
1487453	54.87	1.5km - West	SU 40844 20021	This ancient woodland parcel forms part of Zionhill Copse.

Protected Species, Species of Principle Importance and other species of conservation concern

- 4.1.8** There were 1741 records for protected species, SPI and other species of conservation concern returned from the desk study search within 2km of the site. These records consisted of the following species, 1 amphibian, 9 bats identified to species level and 3 to genus level, 100 birds, 24 higher plants, 1 lower plant, 188 invertebrates, 4 fish, 5 mammals (non-bats) and 34 reptiles (see Table 10 Appendix I).
- 4.1.9** No records of protected species or species of conservation concern were return from the desk study within the site. The closest record to the site for each species is given in Table 10 Appendix I.
- 4.1.10** There were 17 records of bat roosts returned from the desk study search within 2km of the site. This included roost records for common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), pipistrelle sp., serotine (*Eptesicus serotinus*), long eared sp. and brown long-eared (*Plecotus auritus*). The closest record was a soprano pipistrelle hibernation roost located 0.3km from the site. A record of a brown long eared maternity roost was returned 1km from the site.

European Protected Species Licences

- 4.1.11** Seven EPSLs were returned from the desk study search within 2km of the site as detailed in Table 7. Five EPSLs were granted for bats and two for hazel dormouse (*Muscardinus avellanarius*). The closest EPSL granted was for common pipistrelle and was located 0.5km from the site.

Table 7 - Summary of European Protected Species Licences granted by Natural England within 2km of the site.

Licence number and year granted	Species	Grid reference	Distance from site	Summary of activities
EPSM2013-5829	- Common pipistrelle; - Serotine - Brown long-eared.	SU41291880	2km – South west	Destruction of a resting place.
2014-607-EPS-MIT	Hazel dormouse	SU42902070	0.9km - North	Damage and destruction of a resting and breeding place.
EPSM 2013-5583	Hazel dormouse	SU42902070	0.9km - North	Damage and destruction of a breeding site
2014-148-EPS-MIT	Common pipistrelle.	SU43401921	0.5km – South east	Destruction of a resting place
2017-27981-EPS-MIT 2017-27981-EPS-MIT-1	- Brown long-eared; - Common pipistrelle; - Serotine; and - Soprano pipistrelle.	SU43472130	1km - North	Destruction of a resting place.
EPSM 2009 - 1058	Common pipistrelle	SU43601909	0.5km – South east	Destruction of a resting place

Invasive Species

- 4.1.12** There were 266 records of Invasive Non-Native Species (INNS) that included a total of 36 species that were returned from the desk study search within 2km of the site. No records of INNS were returned from the desk study search within the site. The closest record to the site for each INNS is given in Table 10 Appendix 1.

4.2 UK Habitat Classification Survey

UK Habitat classification – Overview

- 4.2.1** The habitats recorded during the UK Habitat classification survey are displayed in Figure 2a and photographs of habitats within the site are given in Figure 2b. A species list for each habitat is given in Tables 11-16 in Appendix II. A description of each habitat recorded within the site is given below.

Grassland – Modified grassland (g4)

- 4.2.2** An area (approximately 149m²) of grassland was recorded within the site (see g4, Figure 2a and Figure 2b). The grassland was reported as a short amenity grassland (Phase 1 habitat survey code) in 2019 by Peach Ecology & Environmental Services Ltd (Peach Ecology & Environmental Services, 2019). The grassland is relatively species poor and dominated by a small number of faster growing grass species. The grassland is now much more coarse in structure and has a sward height ranging from 5cm – 1m, reflecting the ceasing of management and mowing at the site. Grasses make up approximately 80% coverage of the habitat. The grassland contained only 6 species per m².
- 4.2.3** False oat grass (*Arrhenatherum elatius*) is becoming frequent with cock's foot (*Dactylis glomerata*) and yorkshire fog (*Holcus lanatus*) also being frequently recorded. Creeping bent grass (*Agrostis stolonifera*) was frequently recorded and rough meadow grass (*Poa trivialis*) occasionally recorded. Perennial rye grass (*Lolium perenne*) is present but was rarely recorded. Yarrow was abundant and white clover was frequent. Several other forbs were also occasionally or rarely recorded.
- 4.2.4** The grassland fits the criteria as a modified grassland but is transitioning in classification closer to a *Arrhenatherum* neutral grassland under its current lack of management. As management is resumed within the site the coverage of false oat grass is likely to be reduced, reflecting a modified grassland more. The grassland also falls outside the criteria of other neutral grassland based upon the low number of species per m².

Bramble scrub (h3d)

- 4.2.5** There is an area (approximately 31 m²) of bramble scrub located in the north eastern corner of the site and continues along to eastern boundary (See h3d, Figure 2a). The bramble was the dominant species recorded with a single common lilac also recorded. The bramble scrub appears to have encroached into the site since the PEA undertaken in 2019 (Peach Ecology and Environmental Services Ltd., 2019), reflecting the ceasing of habitat management within the site.

Mixed scrub (h3h)

- 4.2.6** There is an area (approximately 119m²) of mixed scrub that is located along the southern boundary of the site and in the south east corner of the site (see h3h, Figure 2a and Figure 2b). The mixed scrub ranges in height from 1-3m. There was no one dominant species. The mixed scrub included Forsythia, with frequent bramble (*Rubus fruticosus*), cherry laurel (*Prunus laurocerasus*), European beech (*Fagus sylvatica*), sycamore (*Acer pseudoplatanus*) and spindle (*Euonymus europaeus*). There is also a single ash tree (*Fraxinus excelsior*) within the mixed scrub. The ground layer was dominated by ground ivy (*Glechoma hederacea*).

Hedgerow – Other hedgerow (h2b)

- 4.2.7** There is a hedgerow (approximately 36m²) located along the northern boundary of the site (see h2b, Figure 2a and Figure 2b). The hedgerow is approximately 18m in length and is approximately 2m wide. The hedgerow is comprised entirely of privet sp. (likely non-native variety).

Urban buildings – Commercial (u1b5, 90)

- 4.2.8** There are two buildings located within the site, hereafter referred to as Building B1 and B2 (see Figure 2a).
- 4.2.9** Building B1 is a two story building (approximately 98 sqm) located in the northern section of the site (See u1b5 - Building B1, Figure 2a and Figure 2b). Building B1 was formerly used as a commercial premises and is now unused. There is no vegetation associated with Building B1.
- 4.2.10** Building B2 is a small temporary structure (approximately 19m²) located in the north of the site along the eastern boundary (See u1b5 - Building B2, Figure 2a). Building B2 is a metal in construction and is likely to have been used for storage or as an office

as part of the commercial activity at the site. Building B2 is situated amongst the bramble scrub and modified grassland recorded on the site.

Developed land – Sealed surface - carpark with scattered scrub (u1b, 10, 89)

- 4.2.11** There is an area (approximately 560m²) of hardstanding that dominates much of the site (see u1b6, 10, 89, Figure 2a and Figure 2b). The hard standing is mostly void of any vegetation however there are some small areas of scattered scrub which includes individual sycamore, spindle and privet on the eastern and northern boundary of the site. Guernsey bleabean (*Conyza sumatrensis*) is frequent in the north eastern corner with individual annual meadow grass (*Poa annua*) also recorded.

Line of trees (w1g6)

- 4.2.12** There is a line of trees (approximately 119m²) located in the southern section of the site, curling diagonally from the current site entrance across to the area of modified grassland (see w1g6, Figure 2a and Figure 2b). The tree line consists of 22 mature cypress *sp.* trees, which range from 10-15 metres in height. A single sycamore forms part of the treeline but falls outside of the southern boundary of the site.

4.3 Bat Preliminary Roost Assessment (Structures)

Preliminary Roost Assessment Summary

- 4.3.1** Two buildings were recorded within the site during the UK Habitat Classification survey and were assessed as part of the bat PRA. A summary of each buildings suitability classification for bats and potential bat roost types assigned during the PRA is given below in Table 8. The location of all PRFs recorded is displayed in Figure 3a and photographs given in Figure 3b. A full description of Buildings B1 and B2 and the PRFs recorded (if applicable) is given in Table 17 and Table 18 in Appendix III.

Table 8 - Summary of the bat Preliminary Roost Assessment of buildings recorded within the site.

Building ID	Suitability	Evidence of bats	Suitable roost types	No. surveyors required for bat dusk emergence/ dawn re-entry surveys.
B1	Low	None recorded	Day (Summer) and transitional.	3

B2	Negligible	None recorded	None	n/a
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Building B1

- 4.3.2** Building B1 was classified as having low suitability to support roosting bats in line with BCT, Good Practice Guidelines (Collins, 2016), with suitability for day (summer) and transitional roost types. This classification reflected the low number of PRFs, the urban setting and the fact the PRF's were assessed as being unsuitable for bat maternity and hibernations roost types. The PRFs are relatively exposed and lack the sufficient cover from weather and predators to provide the conditions suitable for bats to use in the maternity and hibernation periods. None of the PRFs lead into the internal roof void of Building B1. The PRFs recorded are characteristic of those used opportunistically and occasionally by small number of common bat species.

Building B2

- 4.3.3** Building B2 was classified as having negligible suitability to support roosting bats in line with BCT Good Practice Guidelines (Collins, 2016). No PRFs or access/egress points recorded on the exterior of Building B2 at the time of the survey. No evidence of bats was found within the interior of Building B2 and no PRFs were recorded internally within Building B2. The lack of PRFs and access/egress points on Building B2 reflects the metal construction of Building B2.

4.4 Bat Preliminary Ground Level Tree Roost Assessment (Trees).

- 4.4.1** A summary of trees assessed during the bat PGLTRA is given below in Table 9.

Table 9 - Summary of the bat Preliminary Ground Level Tree Roost Assessment of trees recorded within the site.

Tree ID	Species	Evidence of bats	Suitability Classification	Suitable roost types
T1	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T2	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None

T3	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T4	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T5	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T6	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T7	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T8	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T9	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T10	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T11	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T12	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T13	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T14	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None

T15	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T16	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T17	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T18	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T19	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T20	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T21	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T22	<i>Cypress sp.</i>	None recorded from ground level	Negligible	None
T23	Ash (<i>Fraxinus excelsior</i>)	None recorded from ground level	Negligible	None

4.4.2 Twenty three trees were assessed during the PGLTRA from two habitats recorded within the site, a treeline and mixed scrub with trees (See w1g6 and h3h in Figure 2a and Figure 2b and the locations of trees assessed in Figure 4a) All trees accessed during the bat PGLTRA were classified as having negligible suitability for roosting bats.

4.4.3 All trees recorded within the site were of a similar age and size, being tall and relatively thin in structure reflecting the tight spacing of the trees in the site. All trees were in good condition. No PRFs for bats were recorded on any of the trees which reflects the aforementioned characteristics of the trees within the site.

5. Relevant Legislation and Planning Policy

5.1 Background

5.1.1 The purpose of this section is to evaluate the legislation and planning policy known to be a material consideration to the development based upon the desk study survey and the field survey results. This section does not include legislation or policy that would require further actions to determine if it is relevant to the development (such as further surveys or mitigation). Potential legislation and planning policy considerations are discussed in section 6 of this report.

5.1.2 A summary of the relevant legislation and planning policy in context of the development is provided below. Full details of the UK legislation and planning policy and offences that are relevant to the qualifying features in this section are detailed in Appendix IV.

5.2 Designated Sites

5.2.1 The site is not located within any statutory or non-statutory designated sites. The site is located within 2.7km of The River Itchen SAC, 4.7km of the Emer Bog SAC (which falls within the Test Valley district) and 4.9km of the Solent and Dorset Coast SPA. The site also falls within a SSSI IRZ area. Furthermore, Titlark SINC and the Northend Copse SINC are within 0.6km of the site.

5.2.2 SAC and SPA are afforded protection under The Habitat and Species Regulations 2017 and SSSI are afforded protection under the Wildlife and Countryside Act, 1981. SAC and SPA are a material consideration under NPPF, 2021, Policy DM11 of the EBC Local Plan 2022 and as per guidance given in government circular 06/2005. Policy DM11 of the EBC Local Plan 2015 is also applicable to SINCS. The above legislation and planning policy is detailed further in Appendix IV.

5.2.3 The development is compliant with the legislation outlining the protection of SAC, SPA, SSSI and SINCS for the following reasons:

- The development will remain within the footprint of a site that has already been developed and as such, there will be no direct loss of area or of habitat to the statutory and non-statutory designated sites outlined above;
- The development does not include any residential developments and comprises a single commercial unit and therefore, will not increase any recreational pressures on the designated sites;

- It is reasonably unlikely that there will be a significant increase in diffuse nutrient pollution resulting from the development (although this assessment is not quantified in this report);
- There is sufficient distance between the site and the aforementioned statutory and non-statutory designated sites to buffer or construction based pollution resulting from the development;
- The qualifying features of the SAC, SPA and SSSI will not be encountered within the site due to the absence of suitable habitat and therefore, important populations will not be impacted by the development.

5.2.4 For the above reasons the favourable conservation status of the qualifying features for the named SACs and SPA will not be impacted. Due to the scale of the development in our professional opinion this development does not meet the threshold for an appropriate assessment (Habitat Regulations Assessment) by EBC.

5.2.5 No further recommendations are outlined in this report with respect to statutory and non-statutory designated sites.

5.3 Habitats of Principal Importance

5.3.1 HPI are a material planning consideration for local authorities though the provisions set out under the Natural Environment and Rural Communities Act, 2006 and the NPPF (2021) for the conservation, restoration and enhancement of biodiversity (see Appendix IV). Policy DM11 of the EBC Local Plan 2022 is also applicable to HPI.

5.3.2 The development will be compliant with the legislation and national and local planning policy relevant to HPI for the following reasons:

- No HPI were recorded in the site and therefore, no direct loss to HPI will occur as a result of the development within the site;
- The development will be within the existing footprint of the site boundary and therefore, will not result in direct loss of HPI outside of the site; and
- There is a sufficient urban buffer between the site and the nearest HPI land parcels (deciduous woodland 0.2km from the site), which will be sufficient to protect HPI from damage and degradation resulting from construction based pollution.

5.3.3 No further recommendations are outlined within this report with respect to HPI.

5.4 Ancient woodland

5.4.1 Ancient woodlands are considered an irreplaceable habitat and are a material planning consideration under the NPPF (2021) and Policy DM11 of the EBC Local Plan 2022 is also applicable to the development as outlined in Appendix IV.

5.4.2 Three ancient woodland parcels were recorded within 500m of the site, the closest being 125m from the site. The development will not have any direct or indirect impact on ancient woodland for the following reasons:

- The development is of small scale and is retained within the footprint of the site and as such, will not result in the direct loss of area or habitat to ancient woodlands;
- The development is non-residential comprising a single commercial unit and will not result in any indirect impacts through local population increase and increased recreational use of the ancient woodland land parcels; and
- The scale of construction related dust and pollution would be reasonably low and there is a sufficient urban buffer to prevent damage or degradation to the nearby ancient woodland land parcels.

5.4.3 No further recommendations are outlined for ancient woodland in this report.

5.5 Biodiversity net gain and ecological enhancements

5.5.1 The requirement for ecological enhancements for the benefit of biodiversity are outlined under the NPPF (2021). Policy DM11 of the EBC Local Plan 2022 also requires developments to seek net gains for biodiversity and incorporate elements of biodiversity within the design, however no threshold is set for biodiversity net gain within the Policy DM11. The Environment Act, 2021 will place duty on all qualifying developments to secure and provide a 10% net gain for biodiversity and forms a part of the Government's 25 year environmental Plan however, this is not anticipated to become active legal requirement until late 2023 (see Appendix IV).

5.5.2 The landscaping plans for the development include the proposed creation of new grassland habitat, the planting of hedgerows and the retention of a single hedgerow and two trees (Drawing ref: 22.3377.100). It is our understanding that the remaining habitat on-site will have to be removed (See, Figure 2a and Drawing ref: 22.3377.100). Ideally, habitats should be retained on-site wherever possible. However, the landscaping plans do present the opportunity to create new habitat that is more suitable to the long term use of the site. Replacing low value habitats (treelines, mixed scrub and bramble scrub, see Figure 2a and Figure2b) on-site and

could also provide benefits for biodiversity within a small site if created and managed correctly.

- 5.5.3** To ensure that the development is compliant with the legislation and planning policy outlining the requirement for net gains for biodiversity and ecological enhancements, the recommendations outlined in section 7.4 should be followed.

6. Potential legislation and planning policy considerations

6.1 Background

6.1.1 The purpose of this section is to evaluate the legislation and planning policy that could possibly be a material consideration to the development and where further information or actions may be required. This is based upon the desk study results and an evaluation of the habitat on-site or nearby to act as an ecological receptor for habitat and species that are a legal or material planning consideration.

6.1.2 The legislation and planning policy outlined in this section that could be relevant to the development is named below and detailed further in Appendix IV of this report.

6.2 Bats

6.2.1 All bats and their roosts are protected under the Conservation of Habitat and Species Regulations, 2017 and the Wildlife and Countryside Act, 1981 (as amended), while seven species of bat are also listed as SPI under S41 of the NERC Act, (2006). Policy DM11 of the EBC Local Plan 2022 and government circular 06/2005 are also applicable to the development by outlining consideration for protected species and as such, bats are a material planning consideration.

Building B1

6.2.2 Building B1 was classified as having suitability to support roosting bats due to the presence of PRFs being recorded on the building during the PRA.. Records of bat roosts found 0.3km and 0.5km from the site further suggest the building has the potential to be used by roosting bats. As the development includes the re-development of Building B1, it has the potential to contravene the legislation and planning policy outlining the protection of bats by potentially impacting bat roosts and causing harm to individual bats.

6.2.3 In order to fully assess the impacts of the development on bats and ensure the development is compliant with the legislation and planning policy outlining the protection of bats, the recommendations in section 7.2 should be followed with respect to Building B1.

Building B2

- 6.2.4** Building B2 was classified as having negligible suitability to support roosting bats at the time of the PRA. The negligible classification for Building B2 was concluded based upon the absence of access/egress points and PRFs for use by bats. Furthermore, no evidence of bats was recorded at Building B2 during the PRA. It is reasonably unlikely that a bat roost of individual bats will be harmed as a result of the development and bats are considered likely absent from Building B2. Therefore, the development will be compliant with the legislation and planning policy outlining the protection of bats with respect to Building B2. No further recommendations for bats are made in this report with respect to Building B2.

Trees

- 6.2.5** A treeline and an area of mixed scrub were recorded within the site during the UK Habitat Classification Survey (See w1g6 and h3h, Figure 2a and Figure 2b). All trees recorded within the site were classified as having negligible potential to support roosting bats during the bat PGLTRA. The removal of the treeline and mixed scrub as part of the development will therefore be compliant with the legislation and planning policy outlining the protection of bats and their roosts. No further recommendations for bat roosts are made in this report with respect to the trees within the site.

Commuting and foraging habitat

- 6.2.6** The site contains small areas of habitat including a treeline, mixed scrub, modified grassland, bramble scrub and a hedgerow (See w1g6, h3h, g4, h3d and h2b, Figure 2a and Figure 2b) that provide habitat of limited value for use by foraging bats at a site level. Building B1 also has the suitability to support roosting bats and as such, the above habitat could form the function of a commuting line of value to a bat roost, if one were to be present in Building B1.
- 6.2.7** Due to the size and limited quality of the habitat within the site and furthermore the site's urban setting it is reasonably unlikely that a significant population of bats will use the site for foraging. This is further supported by the availability HPI and other designated and non-designated sites found locally to the site (See Figure 1) which are likely to provide better foraging opportunities for bats.
- 6.2.8** To ensure the development is compliant with the legislation and planning policy relevant to roosting bats the recommendations outlined in section 7.2 with respect to bats should be followed.

6.3 Birds

6.3.1 Nesting birds are afforded protection under the Wildlife & Countryside Act, 1981 as outlined in Appendix IV. The treelines, mixed scrub, bramble scrub, hedgerow and buildings recorded within the site provide suitable nesting habitats for birds (See w1g6, h3h, h3d, h2b and u1b5 in Figure 2a and Figure 2b). To ensure the development is compliant with the legislation and planning policy outlining the protection of birds and their nests the recommendation in section 7.3 should be followed.

6.4 Hedgehog

6.4.1 A record for hedgehog was recorded 0.07km from the site and it is reasonably likely that individual hedgehog could be found within the habitats recorded within the site (See Figure 2a and Figure 2b). Hedgehog are afforded protection under the Wild Mammals (Protection) Act, 1996 which prohibits certain cruel acts that could cause undue suffering and harm (see appendix IV). Hedgehog are also listed as a SPI under the NERC Act, 2006 and as such are a material planning consideration.

6.4.2 Due to the site already being developed, the small scale of the development and it's semi-urban setting, it is reasonably unlikely that hedgehog will be impacted at a population level as a result of the development. As such the development will be compliant with the NERC Act, 2006 and Policy DM11 of the EBC Local Plan 2022.

6.4.3 It is possible that individual hedgehog could be killed in ways prohibited under the Wild Mammals (Protection) Act, 1996 as a result of construction based activities during the development without appropriate mitigation. The recommendations outlined in section 7.3 in this report should ensure the development is compliant with the Wild Mammals (Protection) Act, 1996 with respect to hedgehog.

6.5 Invertebrates

6.5.1 Numerous records of invertebrates were returned within 2km of the site including several species listed as SPI under section 41 of the NERC Act, 2006 (see Table 10 Appendix 1) making them a material planning consideration. Policy DM11 of the EBC Local Plan 2022 also outlines consideration for SPI (see Appendix IV).

6.5.2 The records returned from the desk study highlight the study area as being rich in invertebrates, which is likely to reflect the number of statutory and non-statutory designated sites, ancient woodland and HPI nearby to the site (see Figure 1). Despite this, the site is unlikely to support important invertebrate assemblages or populations of SPI including, species such as stag beetle (*Lucanus cervus*) that persist well in urban environments. This is due to the site's urban location, the overall quality

of habitat found within the site being relatively poor or sub-optimal (for stag beetle with only a coniferous treeline present) and some habitats only being established more recently since management at the site has ceased.

6.5.3 No further recommendations are made in this report with respect to invertebrates.

6.6 Reptiles

6.6.1 All reptiles are protected under the Wildlife & Countryside Act, 1981 (as amended) and are listed as SPI under section 41 of the NERC Act, 2006, and as such are a material planning consideration. Policy DM11 of the EBC Local Plan 2022 is relevant to the development as is government circular 06/2005 with respect to reptiles.

6.6.2 Records for four reptile species were returned from the desk study search within 2km of the site. There is a small section of modified grassland (see g4 in Figure 2a and Figure 2b), that in its current condition broadly provides suitable habitat for common reptile species (such as slow worm (*Anguis fragilis*) and common lizard (*Zootoca vivipara*)). Despite this the grassland area is small and is isolated in an urban setting. Furthermore, the current condition of the grassland is likely attributed to management of the site temporarily ceasing. The above points taken together suggest, in our professional judgment, that reptiles are reasonably likely to be absent from the site. Therefore, the development will be compliant with the legislation and planning policy outlining the protection of reptiles.

6.6.3 No further recommendations are made with respect to reptiles in this report.

6.7 Non-native invasive species

6.7.1 Several non-native plants and animals that are listed under schedule 9 of the Wildlife and Countryside Act, 1981 that are considered a conservation threat to native biodiversity were returned from the desk study search within 2km of the site. Despite this no species listed under schedule 9 of the Wildlife & Countryside Act, 1981 or outlined under The Invasive Alien Species Enforcement and Permitting Order 2019 were recorded within the site.

6.7.2 The most likely species to be encountered within the site is grey squirrel (*Sciurus carolinensis*) for which records were returned from the desk study. Despite this the development is reasonably unlikely to result in the release (with exception to emergency in-situ assistance of a trapped animal, which would not constitute an offence) or planting, or causing the growing in the wild of any species that would result in an offence under the above legislation. In the event that a squirrel drey with young is found within the site the recommendations outlined in section 7.3 should

be followed with respect to grey squirrels to ensure the development is compliant with the legislation outlined above.

6.8 Other Terrestrial Mammals

Hazel dormouse, otter and water vole

- 6.8.1** Records within 1km of the site for hazel dormouse, otter (*Lutra lutra*) and water vole (*Arvicola amphibius*) were returned from the desk study search. Hazel dormouse and otter are afforded protection under the Conservation of Habitat and Species Regulations, 2017 and the Wildlife and Countryside Act, 1981. Water vole are protected under the Wildlife and Countryside Act, 1981. All three of the above species are SPI under the NERC Act, 2006, and as such are a material planning consideration. Policy DM11 of the EBC Local Plan 2022 is also relevant to the development, as is government circular 06/2006 with respect to the aforementioned species.
- 6.8.2** No suitable habitat was recorded within the site for otter or water vole, reflecting the absence of water bodies within the site. There are also no waterbodies or connecting habitat to waterbodies nearby to the site. The development will therefore, not have any impact on otter and water vole and will be compliant with the legislation and planning policy outlining the protection of the species.
- 6.8.3** A treeline, mixed scrub, bramble scrub and a hedgerow were recorded within the site (see, w1g3, h3h, h3d and h2b, Figure 2a and Figure 2b), which broadly can provide suitable habitats for hazel dormouse. Despite this, the above habitat in context of the site are small, isolated and located in an urban setting. Taken together in our professional judgment hazel dormouse are reasonably likely to be absent from the site. As the development will remain within the existing footprint of the site, no habitat outside of the site for the above species will be impacted. The development will therefore be compliant with the legislation and planning policy outlining the protection of hazel dormouse.
- 6.8.4** No further recommendations are outlined within this report for hazel dormouse, otter and water vole.

Badger, fox and rabbit

- 6.8.5** Records for badger were returned with 1km of the site from the desk study search. Badgers are protected under the Badger Protection Act, 1992 and are a material planning considerations. Policy DM11 of the EBC local plan is also relevant to the development as is government circular 06/2006. No evidence of badgers or their

setts were recorded within the site at the time of the survey and they are considered likely absent from the site at the time of the survey.

- 6.8.6** It is possible that badgers and other mammals such as fox and rabbit which are afforded protection under the wild mammal (Protection) Act, 1996 from certain types of unlawful killing could dig burrows within the site prior to the start of the development, particularly if the site remains disused. As a precaution, the recommendations outlined in section 7.3 should be followed in the event that a mammal burrow or badger sett is recorded within the site.

7. Recommendations

7.1 Background

- 7.1.1** This section is based upon the results of the desk study, the UK Habitat Classification survey and an evaluation of both the known and potentially relevant legislation and planning policy to the development. The recommendations included are based upon the mitigation hierarchy (avoidance, mitigation and compensation). Mitigation is not discussed where further surveys are required to inform such mitigation or compensation, unless in our professional judgement it would not be proportionate or practical to request further surveys.

7.2 Further Surveys

Bats – Buildings

- 7.2.1** To ensure the development is compliant with the legislation and planning policy outlining the protection of bats with respect to Building B1, a proportionate survey effort should be undertaken to determine the presence or probable absence of roosting bats. The survey effort should consist of dusk emergence or dawn re-entry surveys undertaken in line with BCT Good Practise Guidelines (Collins, 2016).
- 7.2.2** Building B1 was classified as having low potential to support roosting bats and therefore in-line with BCT good practice guidelines a single dusk emergence or dawn re-entry survey would be proportionate to determine the presence or probable absence of bats. The bat dusk emergence and/or dawn re-entry surveys should be undertaken between May and August.
- 7.2.3** In line with the BCT technical guidance note (BCT, 2022) the use of infra-red or thermal imaging cameras is recommended for any dusk emergence and/or dawn re-entry surveys undertaken on Building B1 for increased detection of emerging and returning bats.

Bats – Commuting and Foraging Habitat

- 7.2.4** The development includes the removal of habitat suitable for foraging and commuting bats. In our professional opinion it would not be proportionate to undertake bat activity surveys to inform the impact of the development for the following reasons:

- The site is small in size and as such the available habitat only provides limited foraging opportunity for bats and is unlikely to be significant to local bat populations;
- There are no designated sites for bats adjacent to the site or within 5km of the site;
- The value of the habitat within the site as a commuting line for bats can be concluded based upon the results of the bat dusk emergence and/or dawn re-entry surveys recommended for Building B1 to determine the presence/absence of bats; and
- The mitigation can be sufficient predicted based upon the results of the dusk emergence and dawn re-entry surveys without the need for further activity surveys for bats within the site.

7.3 Mitigation

Birds

- 7.3.1** In order to ensure that the development is compliant with the legislation and planning policy relating to breeding birds, if works begin in the breeding bird season (April – September) then a pre-works inspection to search for breeding birds should be undertaken. The inspection should cover all suitable habitat for breeding birds within the site that could conceal a birds nest.
- 7.3.2** If an active bird nest or nesting activity is recorded within suitable habitat onsite during the pre-works inspection or at any other time or place during the development (such as the storage of building materials) the nest should be protected from damage and destruction (including disturbance that may cause the nest to be abandoned). A minimum buffer size of 5m should be implemented around any active nests and works in and around these areas should be controlled or delayed until the chicks have fledged.

Hedgehog

- 7.3.3** Where reasonably practical, measures should be included within the PMoW to avoid unnecessary killing or injuring that could result in undue suffering and harm to hedgehog as a result of the developments construction-based activities at the site. As such, stakeholder and contractors undertaking works should be briefed as part of a tool-box talk on the actions to take if a hedgehog is encountered. Stakeholders and contractors should remain vigilant for the presence of hedgehogs around any

vegetation, debris or stored materials. A reasonable action would be to move an individual to a safe location either within retained habitat or off-site.

Other terrestrial mammals (badger, fox, rabbit and grey squirrel).

7.3.4 In the event that a burrow entrance of a mammal is discovered on-site that could be of a suitable size for badgers the following actions should be taken:

- Works paused and an ecologist consulted regarding any likely burrow or badger sett;
- A suitable buffer of at least 20m established and clearly marked around the suspected badger sett;
- Due to the small size of the site, if it is not possible to apply a 20m buffer around a suspected sett, the professional judgment of the ecologist should be consulted to determine a suitable buffer; and
- Any badger sett or mammal burrow that could be in use by badgers that is reasonably likely to be impacted by the development should be monitored for an appropriate period by an ecologist and the appropriate licencing requirements obtained.

7.3.5 Any rabbit or fox burrows found within the site should not be tracked over by machinery and those that will be impacted as part of the development should be dug out with hand tools only to prevent unlawful methods of killing (such as those outlined under the Wild Mammals (Protection) Act, 1996).

7.3.6 In the event that a squirrel drey is encountered with the treeline or mixed scrub within the site (see w1g6 and h3h, Figure 2a) and young are present, the drey should ideally be left in-situ until the young disperse by themselves from the drey. If it is not possible to avoid removing the squirrel drey, it should be removed in a way that does not result in unlawful killing as per the Wild Mammals (Protection) Act, 1996 (see appendix IV). If a drey with young is removed, the young should either be humanely euthanized by a trained professional or taken into a professional animal care centre, where upon arrival they cannot be released back into the wild again.

7.4 Biodiversity Net Gain and Ecological Enhancements

7.4.1 The following recommendations should be incorporated within a combined plan to outline net gains for biodiversity and ecological enhancements within the development as outlined in Policy DM11 of the EBC Local Plan 2022.

Biodiversity Net Gain

- 7.4.2** To ensure the development is compliant with Policy DM11 of the EBC Local Plan, (2022), EBC should be consulted on the requirements and threshold (percentage gain in biodiversity units) for achieving BNG on-site as part of the development and any off-site opportunities or credits that may be available from EBC or third party organisations.
- 7.4.3** If EBC outline that BNG is a requirement for the development a BNG assessment should be undertaken. The BNG assessment should follow industry good practice guidelines (Baker et al, 2019 and CIEEM, 2021) and be calculated using the latest edition of the Natural England Biodiversity Metric (currently 3.1) or biodiversity small site metric. The pre-development baseline biodiversity units and the post development biodiversity units should be calculated to determine if a net gain for biodiversity will be achieved with the current landscaping plans (Drawing ref: 22.3377.100).

Ecological Enhancements

- 7.4.4** The following ecological enhancements relevant to the development are recommended at this stage:
- Incorporate two bat boxes for crevice dwelling bat species within unlit areas of the site or as part of Building B1. Alternatively four bat tiles could be installed to the roof of Building B1;
 - Two swift boxes and one starling box to be incorporated within the design of Building B1;
 - Incorporate four solitary bee bricks or boxes within the site;
 - Incorporate a 13cm x 13cm gap into any permanent boundary fencing to allow the movement of small animals including hedgehogs;
 - Incorporate the planting of native species as part of the development and undertake the removal of non-native plants (including the replacement of non-native plants with native species) within the site;
 - Incorporate a sensitive light regime into the design of the development to retain dark areas within the site and reduce light pollution and overspill (see ILP and BCT (2018) Guidance Note 08/18 Bats and Artificial Lighting in The UK); and

-
- It may be possible to create additional vertical habitat (green walls) within the site with the use of native climbing plants on the new building or on the eastern and southern boundaries of the site.

8. Conclusion

8.1 Summary

- 8.1.1** The design of the development will not impact any statutory or non-statutory designated sites, HPI or ancient woodlands based upon the desk study and UK Habitat Classification Survey results.
- 8.1.2** Further surveys will be required in order to fully assess the impacts of the development on roosting bats, as the development includes the re-development of Building B1 which has suitability to support roosting bats. Mitigation to be included within a PMoW is outlined within this report to ensure the development proceeds lawfully during the construction phase of the development with respect to nesting birds, hedgehogs, badgers, fox's , rabbits and grey squirrel.
- 8.1.3** Consultation should be sought from EBC on the requirement and on-site threshold for biodiversity net gain to be achieved as part of the development (in the absence of a legal mandate and a defined threshold under Policy DM11 of the EBC Local Plan 2022). The landscaping plans for the development include the creation of new grassland and hedgerows within the site which provide opportunity to create habitats of ecological value within a small urban site.
- 8.1.4** Should the recommendations for further surveys and mitigation be followed it will ensure the development is able to proceed lawfully. Furthermore, if the recommendations for biodiversity net gain and ecological enhancements are followed it should ensure there are positive benefits for biodiversity as a result of the development.

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Appendix I – Desk Study Protected Species Records

Table 10 - Desk study records for protected species and other species of conservation concern located within 2km of the site – Purchased from Hampshire Biodiversity Information Centre.

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
Amphibians												
Common toad (<i>Bufo Bufo</i>)	11	2013	0.26km	SU42801960		✓	✓					
Bats												
Barbastelle (<i>Barbastella barbastellus</i>)	2	2018	1.8km	SU433215	✓	✓ (5)	✓					Annex II ¹²
Serotine (<i>Eptesicus serotinus</i>)	7	2018	1.6km	SU433215	✓	✓ (5)						
Myotis sp.	3	2018	1.8km	SU433215	✓	✓ (5)						
Daubenton's (<i>Myotis daubentonii</i>)	2	2016	1.1km	SU434208	✓	✓ (5)						
Natterer's (<i>Myotis nattereri</i>)	2	2003	0.74km	SU426203	✓	✓ (5)						
Noctule (<i>Nyctalus noctule</i>)	7	2018	1.1km	SU4418	✓	✓ (5)	✓					
Pipistrelle sp.	11	2017	0.3km	SU428192	✓	✓ (5)						
Common pipistrelle (<i>Pipistrellus pipistrellus</i>)	18	2018	0.78km	SU424202	✓	✓ (5)						
Soprano pipistrelle (<i>Pipistrellus pygmaeus</i>)	8	2018	1.1km	SU4418	✓	✓ (5)	✓					
Long eared sp. (<i>Plecotus sp.</i>)	10	2018	1km	SU435186	✓	✓ (5)						
Brown long eared	8	2021	1km	SU435186	✓	✓ (5)	✓					

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
<i>(Plecotus auratus)</i>												
Birds												
Swift <i>(Apus apus)</i>	12	2021	0.1km	SU432196		✓						
Mandarin Duck <i>(Aix galericulata)</i>	1	2006	1.8km	SU4417		✓ (9)						
Egyptian Goose <i>(Alopochen aegyptiacus)</i>	1	2010	1.8km	SU4417		✓ (9)						
Snow Goose <i>(Anser caerulescens)</i>	1	2001	1.8km	SU4417		✓ (9)						
Bar-headed Goose <i>(Anser indicus)</i>	1	2003	1.8km	SU4417		✓ (9)						
Canada goose <i>(Branta canadensis)</i>	2	2012	1.4km	SU427211		✓ (9)						
Ruddy duck <i>(Oxyura jamaicensis)</i>	5	2005	0.3km	SU4220		✓ (9)						
Ring-necked Parakeet <i>(Psittacula krameria)</i>	3	2004	0.3km	SU4220		✓ (9)						
Kingfisher <i>(Alcedo atthis)</i>	15	2019	0.35km			✓ (1)						Bird Directive Annex 1 ¹³
Skylark <i>(Alauda arvensis)</i>	6	2018	0.9km	SU4419		✓	✓			Red		
Lapwing <i>(Vanellus vanellus)</i>	7	2019	0.65km	SU4218		✓	✓			Red		
Hoopoe <i>(Upupa epops)</i>	1	2014	1.3km	SU4321		✓ (1)						
Barn owl <i>(Tyto alba)</i>	7	2014	0.9km	SU4419		✓ (1)						
Mistle thrush <i>(Turdus viscivorus)</i>	14	2019	0.65km	SU4218		✓						

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
Ring ouzel (<i>Turdus torquatus</i>)	5	2018	0.65km	SU4218		✓	✓			Red		
Fieldfare (<i>Turdus pilaris</i>)	10	2019	0.06km	SU4219		✓ (1)				Red		
Song thrush (<i>Turdus philomelos</i>)	26	2019	0.35km	SU4220		✓						
Redwing (<i>Turdus iliacus</i>)	18	2019	0.35km	SU4220		✓ (1)				Red		
Green sandpiper (<i>Tringa ochropus</i>)	3	2018	1.8km	SU4417		✓ (1)						
Greenshank (<i>Tringa nebularia</i>)	2	2014	1.8km	SU4417		✓ (1)						
Sandwich tern (<i>Thalasseus sandvicensis</i>)	1	2007	1.8km	SU4417		✓						
Shelduck (<i>Tadorna tadorna</i>)	2	2015	1.8km	SU4417		✓						
Starling (<i>Sturnus vulgaris</i>)	21	2019	0.3km	SU4220		✓						
Turtle dove (<i>Streptopelia turtur</i>)	1	2007	1.8km	SU4417		✓	✓			Red		
Little tern (<i>Sternula albifrons</i>)	1	2016	1.8km	SU4417		✓ (1)						Bird Directive – Annex I
Arctic tern (<i>Sterna paradisaea</i>)	2	2013	1.8km	SU4417		✓						Bird Directive – Annex I
Common Tern (<i>Sterna hirundo</i>)	3	2018	1.8km	SU4417		✓						Bird Directive – Annex I
Siskin (<i>Spinus spinus</i>)	20	2019	0.3km	SU4320		✓						
Garganey	1	1993	1.8km	SU4417		✓ (1)						

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
(<i>Spatula querquedula</i>)												
Shoveler (<i>Spatula clypeata</i>)	3	2019	1.8km	SU4417		✓						
Woodcock (<i>Scolopax rusticola</i>)	50	2019	0.35km	SU4220		✓						
Whinchat (<i>Saxicola rubetra</i>)	3	2016	1.8km	SU4417		✓						
Kittiwake (<i>Rissa tridactyla</i>)	1	2002	1.8km	SU4417		✓						
Sand martin (<i>Riparia riparia</i>)	6	2017	0.9km	SU4218		✓						
Firecrest (<i>Regulus ignicapilla</i>)	26	2019	0.3km	SU4320		✓ (1)						
Avocet (<i>Recurvirostra avosetta</i>)	1	2009	1.8km	SU4417		✓ (1)				Red		Bird Directive – Annex I
Water rail (<i>Rallus aquaticus</i>)	5	2019	1.8km	SU4417		✓						
Marsh tit (<i>Poecile palustris</i>)	10	2019	0.7km	SU424201		✓						
Willow tit (<i>Poecile montanus</i>)	1	2015	0.3km	SU42		✓						
Great crested grebe (<i>Podiceps cristatus</i>)	3	2018	1.8km	SU4417		✓						
Slovenian grebe (<i>Podiceps auratus</i>)	1	2007	1.9km	SU4117		✓						
Grey plover (<i>Pluvialis squatarola</i>)	1	2016	1.8km	SU4417		✓						

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
Golden plover (<i>Pluvialis apricaria</i>)	4	2012	1.8km	SU4417		✓						Bird Directive – Annex I
Wood Warbler (<i>Phylloscopus sibilatrix</i>)	5	2015	0.3km	SU4320		✓	✓			Red		
Redstart (<i>Phoenicurus phoenicurus</i>)	5	2016	1.3km	SU4321		✓						
Black redstart (<i>Phoenicurus ochruros</i>)	8	2017	0.3km	SU4320		✓ (1)				Red		
Honey buzzard (<i>Pernis apivorus</i>)	6	2018	n/a	SU41		✓ (1)						Bird Directive – Annex I
Grey Partridge (<i>Perdix perdix</i>)	1	2004	1.8km	SU4417		✓	✓			Red		
Tree sparrow (<i>Passer montanus</i>)	1	2009	0.9km	SU4420		✓	✓			Red		
House sparrow (<i>Passer domesticus</i>)	9	2019	0.3km	SU4221		✓	✓			Red		
Osprey (<i>Pandion haliaetus</i>)	4	2016	1.5km	SU443206		✓						Bird Directive – Annex I
Wheatear (<i>Oenanthe Oenanthe</i>)	5	2015	1.6km	SU4317		✓						
Wimbrel (<i>Numenius phaeopus</i>)	1	2007	1.8km	SU4417		✓ (1)				Red		
Curlew (<i>Numenius arquata</i>)	2	2017	1.8km	SU4417		✓	✓			Red		
Spotted Flycatcher (<i>Muscicapa striata</i>)	11	2019	0.3km	SU4320		✓	✓			Red		
Yellow wagtail (<i>Motacilla flava</i>)	3	2016	1.8km	SU4417		✓						
Grey wagtail (<i>Motacilla cinerea</i>)	18	2019	0.3km	SU4220		✓						

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
Red kite (<i>Milvus milvus</i>)	15	2019	0.3km	SU4220		✓ (1)						Bird Directive -Annex I
Black kite (<i>Milvus migrans</i>)	1	2008	1.2km	SU4118		✓						Bird Directive – Annex I
Goosander (<i>Mergus merganser</i>)	2	2018	1.8km	SU4417		✓						
Nightingale (<i>Luscinia megarhynchos</i>)	4	2013	1.3km	SU4221		✓						
Woodlark (<i>Lullula arborea</i>)	4	2014	1.3km	SU4321		✓(1)	✓			Red		Bird Directive – Annex I
Crossbill (<i>Loxia curvirostra</i>)	9	2019	0.3km	SU4218		✓ (1)						
Grasshopper warbler (<i>Locustella naevia</i>)	1	2008	1.8km	SU4417		✓	✓			Red		
Linnet (<i>Linaria cannabina</i>)	5	2016	0.9km	SU4419		✓						
Black tailed godwit (<i>Limosa limosa</i>)	1	2003	1.8km	SU4417		✓ (1)				Red		
Bar tailed godwit (<i>Limosa lapponica</i>)	1	2002	1.8km	SU4417		✓						
Great Black-backed Gull (<i>Larus marinus</i>)	4	2019	0.9km	SU4419		✓						
Lesser Black-backed Gull (<i>Larus fuscus</i>)	11	2019	0.6km	SU4218		✓						
Herring gull (<i>Larus argentatus</i>)	10	2109	1.1km	SU442199		✓						
Wryneck (<i>Jynx torquilla</i>)	3	2008	1.3km	SU4321		✓ (1)						

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
Mediterranean gull (<i>Ichthyaetus melanocephalus</i>)	8	2019	0.9km	SU4419		✓ (1)						Bird Directive – Annex I
Little gull (<i>Hydrocoloeus minutus</i>)	2	2015	1.8km	SU4417		✓ (1)						Bird Directive – Annex I
Oystercatcher (<i>Haematopus ostralegus</i>)	2	2015	0.9km	SU4419		✓						
Snipe (<i>Gallinago gallinago</i>)	4	2019	1.8km	SU4417		✓						
Brambling (<i>Fringilla montifringilla</i>)	8	2018	0.3km	SU4320		✓ (1)						
Pied Flycatcher (<i>Ficedula hypoleuca</i>)	6	2015	0.3km	SU4320		✓						
Hobby (<i>Falco Subbuteo</i>)	20	2019	n/a	SU41		✓ (1)						
Peregrine (<i>Falco peregrinus</i>)	15	2019	n/a	SU41		✓ (1)						Bird Directive – Annex I
Merlin (<i>Falco columbarius</i>)	4	2013	1.3km	SU4221		✓ (1)						Bird Directive – Annex I
Reed bunting (<i>Emberiza schoeniclus</i>)	9	2019	0.3km	SU4220		✓	✓					
Yellowhammer (<i>Emberiza citrinella</i>)	1	2008	1.8km	SU4417		✓	✓			Red		
Little egret (<i>Egretta garzetta</i>)	10	2019	0.8km	SU423201		✓						Bird Directive – Annex I
Lesser spotted woodpecker (<i>Dryobates minor</i>)	7	2017	0.3km	SU429200		✓						
Dartford warbler (<i>Curruca undata</i>)	2	2008	1.5km	SU414199		✓						Bird Directive – Annex I

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
Cuckoo (<i>Cuculus canorus</i>)	7	2015	0.35km	SU4220		✓	✓			Red		
Hawfinch (<i>Coccothraustes coccothraustes</i>)	10	2018	0.3km	SU4320		✓				Red		
Hen harrier (<i>Circus cyaneus</i>)	1	2010	1.8km	SU4417		✓ (1)	✓			Red		Bird Directive – Annex I
Marsh harrier (<i>Circus aeruginosus</i>)	2	2017	1.8km	SU4417		✓ (1)						Bird Directive – Annex I
Black-headed gull (<i>Chroicocephalus ridibundus</i>)	7	2019	1.1km	SU426185		✓						
Black tern (<i>Chlidonias niger</i>)	1	2015	1.8km	SU4417		✓ (1)						Bird Directive – Annex I
Ringed plover (<i>Charadrius hiaticula</i>)	1	2005	1.8km	SU4417		✓						
Little ringed plover (<i>Charadrius dubius</i>)	1	2007	1.8km	SU41N		✓ (1)						
Cetti's warbler (<i>Cettia cetti</i>)	6	2019	1.8km	SU448202		✓ (1)						
Nightjar (<i>Caprimulgus europaeus</i>)	17	2019	0.65km	SU4218		✓	✓					Bird Directive – Annex I
Ruff (<i>Calidris pugnax</i>)	1	2003	1.8km	SU4417		✓ (1)				Red		Bird Directive – Annex I
Dark bellied brent goose (<i>Branta bernicla</i>)	2	2006	1.8km	SU4417		✓	✓					
Bittern (<i>Botaurus stellaris</i>)	1	2009	1.8km	SU4417		✓ (1)	✓					Bird Directive – Annex I
Pochard (<i>Aythya farina</i>)	3	2019	1.8km	SU4417		✓						

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Short eared owl (<i>Asio flammeus</i>)	1	2010	1.8km	SU4417		✓						Bird Directive – Annex I
Grey Heron (<i>Ardea cinerea</i>)	9	2018	0.68km	0.68km		✓						
Tree pipit (<i>Anthus trivialis</i>)	4	2016	1km	1.1km		✓	✓			Red		
Water pipit (<i>Anthus spinoletta</i>)	2	2015	1.8km	SU4417		✓						
White fronted-geese (<i>Anser albifrons</i>)	1	1996	1.8km	SU4417		✓				Red		
Goshawk (<i>Accipiter gentilis</i>)	3	2018	n/a	SU41		✓ (1)						
Common redpoll (<i>Acanthis flammea</i>)	3	2010	0.3km	SU4321		✓						
Lesser redpoll (<i>Acanthis cabaret</i>)	11	2019	0.65km	SU4218		✓	✓			Red		
Mealy redpoll (<i>Acanthis flammea flammea</i>)	1	1990	1.4km	SU427211		✓						
Fish												
European eel (<i>Anguilla anguilla</i>)	1	1996	1.8km	SU443182			✓				IUCN - CR	
Bullhead (<i>Cottus gobio</i>)	1	1996	1.8km	SU443182								Habitat Directive - Annex II
Brown/Sea Trout (<i>Salmo trutta</i>)	1	1991	1.8km	SU4520			✓					
Grayling (<i>Thymallus thymallus</i>)	1	2003	1.8km	SU4520								Habitat Directive - Annex V
Higher Plants												
Rye Brome (<i>Bromus secalinus</i>)	1	2019	0.8km	SU424189							RedList GB post2001 NT, RedList ENG post2001 NT, ,	Nationally Scarce

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
<i>Ranunculus penicillatus</i> subsp. <i>pseudofluitans</i>	1	1998	1.9km	SU4520								County scarce
White sedge (<i>Carex canescens</i>)	1	1996	1.65km	SU422181								County scarce
Chicory (<i>Cichorium intybus</i>)	1	1998	1.7km	SU448199							IUCN_EN_2014:VU	
Marsh Helleborine (<i>Epipactis palustris</i>)	2	1974	0.3km	SU4320							IUCN_EN_2014:EN	
Common cottongrass (<i>Eriophorum angustifolium</i>)	1	1982	1.3km	SU4221							IUCN_EN_2014:VU	
Upright Spurge (<i>Euphorbia serrulate</i>)	1	2003	0.7km	SU438194								Nationally rare.
Petty Whin (<i>Genista anglica</i>)	1	1990	1.1km	SU423186							IUCN_EN_2014:VU	
Dyers Greenwood (<i>Genista tinctoria</i>)	3	1981	0.6km	SU425201							IUCN_EN_2014:VU	
Corn Marigold (<i>Glebionis segetum</i>)	2	2009	1.7km	SU412196							IUCN_EN_2014:VU, IUCN_GB_2001:VU	
Grey-bracted Hawkweed (<i>Hieracium sublepidoides</i>)	1	2020	1.5km	SU437215								County rare
Great Lettuce (<i>Lactuca virosa</i>)	1	2015	1.6km	SU440210								County scarce
Cut-leaved Dead-nettle (<i>Lamium hybridum</i>)	1	2007	1.6km	SU447194								County scarce
Welsh poppy (<i>Meconopsis cambrica</i>)	2	2009	1km	SU440191								Nationally scarce
Weasel's-snout (<i>Misopates orontium</i>)	5	2021	1.4km	SU437211							IUCN_EN_2014:VU, IUCN_GB_2001:VU	

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
Sainfoin (<i>Onobrychis viciifolia</i>)	1	2209	1km	SU43141850							IUCN_EN_2014:VU, IUCN_GB_2001:VU	
Ivy Broomrape (<i>Orobancha hederaceae</i>)	1	2010	1.1km	SU44101907								County scarce
Greater Broomrape (<i>Orobancha rapum-genistae</i>)	1	2003	1.1km	SU426185							IUCN_EN_2014:VU	
Yellow-juiced Poppy (<i>Papaver dubium</i> subsp. <i>Lecoqii</i>)	1	2015	1.7km	SU447188								County scarce
Lousewort (<i>Pedicularis sylvatica</i>)	1	2006	0.3km	SU424215							IUCN_EN_2014:VU	
Lesser Spearwort (<i>Ranunculus flammula</i>)	14	2021	3km	SU424213							IUCN_EN_2014:VU	
Butcher's-broom (<i>Ruscus aculeatus</i>)	10	2019	0.6km	SU4121								Habitats Directive - Annex V
Corn spurry (<i>Spergula arvensis</i>)	2	2017	1.4km	SU445195							IUCN_EN_2014:VU, IUCN_GB_2001:VU	
Strawberry Clover (<i>Trifolium fragiferum</i>)	1	2003	1.7km	SU434214							IUCN_EN_2014:VU, IUCN_GB_2001:VU	
Rhododendron (<i>Rhododendron ponticum</i>)	23	1996	0.3km	SU4320		✓ (9)						
Water fern (<i>Azolla filiculoides</i>)	1	1999	0.9km	SU4420		✓ (9)						Hants INNS ⁸ , EA notifiable.
Three-cornered Garlic (<i>Allium triquetrum</i>)	25	2021	0.07km	SU430196		✓ (9)						
Pampas-grass (<i>Cortaderia selloana</i>)	1	2021	0.6km	SU4319								Hants INNS
Wall Cotoneaster (<i>Cotoneaster horizontalis</i>)	1	2017	1.9km	SU449194		✓ (9)						

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
Himalayan Cotoneaster (<i>Cotoneaster simonsii</i>)	2	2019	0.9km	SU421199		✓ (9)						
New Zealand Pigmyweed (<i>Crassula helmsii</i>)	2	2019	1.7km	SU412199		✓ (9)						EA notifiable
Montbretia (<i>Crocasmia x crocosmifolia</i>)	10	2021	<1km	SU4319		✓ (9)						
Canadian Canadian Pondweed (<i>Elodea canadensis</i>)	2	1998	1.5km	SU443186		✓ (9)						
Japanese knotweed (<i>Fallopia japonica</i>)	18	2021	0.4km	SU43171917		✓ (9)						
Shallon (<i>Gaultheria shallon</i>)	2	2007	1.4km	SU4118		✓ (9)						Hants Inns
Giant Hogweed (<i>Heracleum mantegazzianum</i>)	1	2006	1.4km	SU43882085		✓ (9)						
Himalayan Balsam (<i>Impatiens glandulifera</i>)	49	2017	<1km	SU4319		✓ (9)						
Yellow Archangel (<i>Lamiastrum galeodbolon argentatum</i>)	15	2021	0.5km	SU432191		✓ (9)						
Least Duckweed (<i>Lemna minuta</i>)	1	2018	1.9km	SU4520								Hants INNS
Mimulus agg.	1	1998	0.9km	SU4420								Hants INNS
Mimulus guttatus	2	2009	1.1km	SU44101907								Hants INNS
Parrot's-feather	4	2012	0.9km	SU42192058		✓ (9)						

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
(<i>Myriophyllum aquaticum</i>)												
Virginia-creeper (<i>Parthenocissus quinquefolia</i>)	2	2018	0.8km	SU433205		✓ (9)						
Cherry Laurel (<i>Prunus laurocerasus</i>)	37	2021	0.6km	SU433190								Hants INNS
Holm Oak (<i>Quercus ilex</i>)	2	2019	<1km	SU4219								Hants INNS
Yellow Azalea (<i>Rhododendron luteum</i>)	2	2007	1.2km	SU420188		✓ (9)						
False-acacia (<i>Robinia pseudoacacia</i>)	6	2019	<1km	SU4320		✓ (9)						
Lower Plants												
Don's Thread-moss (<i>Bryum donianum</i>)	1	2006	1.7km	SU427214								County rare
Invertebrates - Ants, Bees and Wasps												
White Mouthed Digger Wasp (<i>Crossocerus leucostomus</i>)	1	1989	1.4km	SU427211								County scarce
Red wood ant (<i>Formica rufa</i>)	6	2009	0.6km	SU4218								County scarce
Orange-horned Nomad Bee (<i>Nomada fulvicornis</i>)	1	2009	1.5km	SU416204							IUCN_GB_pre94:NR	
Invertebrates - Beetles												
Stag beetle (<i>Lucanus cervus</i>)	99	2019	0.5km	SU419193		Sale only	✓					Habitats Directive - Annex II.
<i>Ophonus ardosiacus</i>	2	2008	1km	SU4119								Nationally scarce

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<i>Pilemostoma fastuosum</i>	2	2006	0.5km	SU426191								Nationally rare
<i>Rhagonycha lutea</i>	2	2008	1km	SU4119								Nationally scarce
<i>Telmatophilus caricis</i>	1	2007	1.2km	SU421205							IUCN_GB_pre94:IK	
<i>Telmatophilus typhae</i>	2	2008	1km	SU4119							IUCN_GB_pre94:IK	
Dusky Cockroach (<i>Ectobius lapponicus</i>)	2	2010	1.2km	SU420204								Nationally scarce
Alder leaf beetle (<i>Agelastica alni</i>)	5	2017	0.03km	SU431196							IUCN_GB_pre94:IK	
Apple-blossom Weevil (<i>Anthonomus pomorum</i>)	2	2008	1km	SU4119							IUCN_GB_pre94:IK	
<i>Chaetocnema subcoerulea</i>	1	1985	1.9km	SU424215								Nationally scarce
<i>Coeliodes ruber</i>	2	2008	1km	SU4119								Nationally scarce
<i>Demetrias imperialis</i>	2	2008	1km	SU4119								Nationally scarce
<i>Elodes minutus</i>	2	2008	1km	SU4119								Nationally notable
<i>Gyrophana hansenii</i>	2	2008	1km	SU4119								Nationally notable
<i>Involutus cupreus</i>	2	2006	0.5km	SU426191								Nationally scarce
Invertebrates - Earwigs												
Lesne's Earwig (<i>Forficula lesnei</i>)	2	2006	0.7km	SU438194								Nationally scarce
Invertebrates – Flies												
Hornet Robberfly (<i>Asilus crabroniformis</i>)	1	1995	1.6km	SU4117								Nationally notable
<i>Psacadina verbekei</i>	1	1989	1.4km	SU427211								Nationally notable
<i>Tipula yerburyi</i>	1	1988	1.9km	SU424215								Nationally notable
Invertebrates - Hemiptera												
<i>Alydus calcaratus</i>	2	2006	1.6km	SU447194								Nationally scarce
<i>Phytocoris</i> (<i>Ktenocoris</i>) <i>insignis</i>	1	2006	1.3km	SU419188							IUCN_GB_pre94:NR	

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
<i>Rhopalus (Rhopalus) parumpunctatus</i>	1	2009	1.7km	SU412196								Nationally scarce
<i>Saldula orthochila</i>	1	2009	1.2km	SU417199								Nationally scarce
Invertebrates - Spiders												
<i>Araneus angulatus</i>	1	2007	1.6km	SU4217								Nationally scarce
<i>Evarcha arcuata</i>	1	2006	0.6km	SU4218								Nationally scarce
Triangle spider (<i>Hyptiotes paradoxus</i>)	1	2007	1.6km	SU4217								Nationally scarce
Invertebrates - Butterflies												
Small heath (<i>Coenonympha pamphilus</i>)	15	2020	0.6km	SU424193			✓				RedList GB post2001 NT	
Silver-washed Fritillary (<i>Argynnis paphia</i>)	16	2020	0.6km	SU424193								County interest
Dingy skipper (<i>Erynnis tages tages</i>)	3	2002	1.7km	SU42502135			✓				RedList GB post2001 VU	County interest
Wall (<i>Lasiommata megera</i>)	1	1988	1.7km	SU422212			✓					County scarce
White admiral (<i>Limenitis Camilla</i>)	14	2020	1km	SU425186			✓				IUCN_GB_2001:VU	
White letter hairstreak (<i>Satyrus w-album</i>)	2	2020	1km	SU440190			✓					
Dark green fritillary (<i>Speyeria aglaja</i>)	4	2019	1.3km	SU419204								County scarce
Grizzled skipper (<i>Pyrgus malvae</i>)	1	1990	0.9km	SU440200			✓				IUCN_GB_2001:VU	County Interest
Small blue (<i>Cupido minimus</i>)	1	2020	1.7km	SU41661855			✓					County scarce
Invertebrate - Grasshopper												
Woodland Grasshopper	1	2010	1.2km	SU420204								Nationally scarce

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
<i>(Omocestus rufipes)</i>												
Invertebrate – Dragonfly												
Common Darter (<i>Sympetrum striolatum</i>)	6	2020	1.2km	SU421205							GB RedList 2001 - DD	
Invertebrate - Moths												
Clouded magpie (<i>Abraxas sylvata</i>)	1	1980	1.6km	SU4421								County rare
Grey dagger (<i>Acronicta psi</i>)	7	2000	0.3km	SU4320			✓					
Knot Grass (<i>Acronicta rumicis</i>)	9	2008	0.3km	SU4320			✓					
Forester (<i>Adscita statices</i>)	3	1980	1km	SU4119			✓					
Scarce umber (<i>Agriopis aurantiaria</i>)	3	2010	1.2km	SU420204								County scarce
Flounced Chestnut (<i>Agrochola helvola</i>)	4	2000	1.3km	SU4321			✓					
Brown-spot Pinion (<i>Agrochola litura</i>)	3	2006	1.9km	SU444181			✓					
Beaded chestnut (<i>Agrochola lychnidis</i>)	9	2009	0.3km	SU4320			✓					
Green-brindled Crescent (<i>Allophyes oxyacanthae</i>)	4	2006	1.4km	SU438209			✓					
Ear moth (<i>Amphipoea oculea</i>)	4	2008	1.1km	SU4120			✓					
Mouse moth (<i>Amphipyra tragopoginis</i>)	6	2009	0.6km	SU4218			✓					

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
Orange moth (<i>Angerona prunaria</i>)	2	2006	1.4km	SU438209								County scarce
Large nutmeg (<i>Apamea anceps</i>)	1	1980	1.3km	SU4321			✓					
Dusky Brocade (<i>Apamea remissa</i>)	1	2010	1.7km	SU4121			✓					
Small clouded brindle (<i>Apamea unanims</i>)	3	2009	1.4km	SU438209								County scarce
Festoon (<i>Apoda limacodes</i>)	3	2005	1.4km	SU438209								Nationally notable
Deep brown dart (<i>Aporophyla lutulenta</i>)	2	2006	1.6km	SU444181			✓					
Garden Tiger (<i>Arctia caja</i>)	4	2011	1.3km	SU444181			✓					
Sprawler (<i>Asteroscopus sphinx</i>)	1	2000	1.7km	SU4121			✓					
Centre-barred Sallow (<i>Atethmia centrargo</i>)	5	2004	1.3km	SU4321			✓					
Red-necked Footman (<i>Atolmis rubricollis</i>)	4	2005	1.4km	SU438209								County scarce
Minor Shoulder-knot (<i>Brachylomia viminalis</i>)	7	2005	0.6km	SU4218			✓					
Mottled rustic (<i>Caradrina Morpheus</i>)	7	2011	0.6km	SU4218			✓					
Bulrush Veneer (<i>Calamotropha paludella</i>)	3	2011	1.6km	SU4421								Nationally scarce
<i>Calophasia lunula</i>	2	2019	1.3km	SU427210							IUCN_GB_pre94:NR	
Royal mantle (<i>Catarhoe cuculata</i>)	2	1980	1.3km	SU4321								County scarce
Roseate Marble (<i>Celypha rosaceana</i>)	1	2009	1.9km	SU444181								County rare

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
Antler moth (<i>Cerapteryx graminis</i>)	1	2000	1.6km	SU4421								County scarce
Streak (<i>Chesias legatella</i>)	2	2000	1.3km	SU4421			✓					County scarce
Latticed Heath (<i>Chiasmia clathrate</i>)	2	2004	1.6km	SU444181			✓					County scarce
Dusky-lemon Sallow (<i>Cirrhia gilvago</i>)	1	2004	1.7km	SU444181			✓					County rare
Sallow (<i>Cirrhia icteritia</i>)	10	2011	0.6km	SU4218			✓					
Pine Leaf-mining Moth (<i>Clavigesta purdeyi</i>)	1	2009	1.9km	SU444181								County rare
White-bodied Conch (<i>Cochylis hybridella</i>)	1	2009	1.9km	SU444181								County rare
Lesser-spotted Pinion (<i>Cosmia affinis</i>)	2	2000	1.3km	SU4321								County scarce
White-spotted Pinion (<i>Cosmia diffinis</i>)	1	1980	1.3km	SU4321			✓					
Goat Moth (<i>Cossus cossus</i>)	1	1980	1.6km	SU4421			✓					
Chamomile Shark (<i>Cucullia chamomillae</i>)	1	2000	1.3km	SU4321								County scarce
False Mocha (<i>Cyclophora porata</i>)	1	1980	1.6km	SU4421			✓					
Oak Lutestring (<i>Cymatophorina diluta</i>)	8	2010	1.1km	SU4120			✓					
Satin Beauty (<i>Deileptenia ribeata</i>)	2	2000	1.6km	SU4421								County scarce
Silver hook (<i>Deltote uncula</i>)	1	1980	1.3km	SU4221								County rare
Small Square-spot (<i>Diarsia rubi</i>)	7	2010	0.6km	SU4218			✓					

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
Figure of Eight (<i>Diloba caeruleocephala</i>)	2	2000	1.6km	SU4421			✓					
Scarce Water-veneer (<i>Donacaula mucronella</i>)	1	2006	1.9km	SU444181								County rare
Small Phoenix (<i>Ecliptopera silaceata</i>)	10	2010	0.6km	SU4218			✓					
Maple-seed Pigmy (<i>Ectoedemia lousiella</i>)	1	2014	0.06km	SU4219								County rare
Engrailed (<i>Ectropis crepuscularia</i>)	8	2014	0.6km	SU4218								County rare
Rosy Marbled (<i>Elaphria venustula</i>)	1	2010	1.9km	SU444181								County scarce
White-barred Knot-horn (<i>Elegia similella</i>)	3	2007	1.6km	SU4421								Nationally scarce
September Thorn (<i>Ennomos erosaria</i>)	5	2003	0.6km	SU4218			✓					
Dusky Thorn (<i>Ennomos fuscantaria</i>)	7	2010	0.6km	SU4218			✓					
August Thorn (<i>Ennomos quercinaria</i>)	1	2000	1.7km	SU4121			✓					
Cacao Moth (<i>Ephestia elutella</i>)	1	2004	1.9km	SU444181								County rare
False Cacao Moth (<i>Ephestia woodiella</i>)	3	2010	1.6km	SU4421								County rare
White-blotch Bell (<i>Epinotia trigonella</i>)	1	2003	0.6km	SU4218								County rare
Wood carpet (<i>Epirrhoe rivata</i>)	1	1980	1.3km	SU4321								County scarce
Pied grey	1	2000	1.6km	SU4421								Nationally scarce

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
<i>(Eudonia delunella)</i>												
Spinach (<i>Eulithis mellinata</i>)	2	2009	1.6km	SU4421			✓					
Sharp-angled Carpet (<i>Euphyia unangulata</i>)	2	2000	1.6km	SU4421								County scarce
Ochreous Pug (<i>Eupithecia indigata</i>)	3	2011	1.4km	SU438209								County scarce
Ash pug (<i>Eupithecia innotata</i> form <i>fraxinata</i>)	1	2000	1.6km	SU4421								County scarce
Juniper Pug (<i>Eupithecia pusillata</i>)	1	2006	1.9km	SU444181								County scarce
Satyr Pug (<i>Eupithecia satyrata</i>)	1	2000	1.6km	SU4421								County Scarce
Plain pug (<i>Eupithecia simpliciata</i>)	5	2011	1.3km	SU4321								County scarce
Shaded Pug (<i>Eupithecia subumbrata</i>)	1	2007	1.9km	SU444181								County scarce
Netted pug (<i>Eupithecia venosata</i>)	1	2004	1.9km	SU444181								County Scarce
White line dart (<i>Euxoa tritici</i>)	1	2004	1.9km	SU444181			✓					
Poplar Kitten (<i>Furcula bifida</i>)	2	2009	1.6km	SU444181								County scarce
Lappet (<i>Gastropacha quercifolia</i>)	2	2000	1.3km	SU4321								County scarce
Cypress Groundling (<i>Gelechia senticetella</i>)	1	2011	1.9km	SU444181								County rare
Tawny Shears (<i>Hadena perplexa</i>)	1	1980	1.6km	SU4421								County scarce

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
Small Ranunculus (<i>Hecatera dysodea</i>)	1	2010	1.9km	SU444181							IUCN_GB_pre94:EX	
Small Emerald (<i>Hemistola chrysoprasaria</i>)	4	2003	2010	SU4320			✓					
Ghost moth (<i>Hepialus humuli</i>)	4	2009	1.4km	SU4321			✓					
Large Clouded Knot-horn (<i>Homoeosoma nebulella</i>)	1	2009	1.9km	SU444181								Nationally scarce
Rustic (<i>Hoplodrina blanda</i>)	8	2011	0.6km	SU4218			✓					
Rosy rustic (<i>Hydraecia micacea</i>)	6	2011	0.3km	SU4320			✓					
Beautiful snout (<i>Hypena crassalis</i>)	4	2010	1.3km	SU4321								Nationally notable
Small Scallop (<i>Idaea emarginata</i>)	3	2010	1.4km	SU438209								County scarce
Beautiful Brocade (<i>Lacanobia contigua</i>)	2	1980	1.3km	SU4321								County scarce
Dog's Tooth (<i>Lacanobia suasa</i>)	1	2000	1.6km	SU4321								County scarce
Mallow (<i>Larentia clavaria</i>)	1	2005	1.9km	SU444181								County scarce
Twin-spotted Wainscot (<i>Lenisa geminipuncta</i>)	1	2006	1.9km	SU444181								County scarce
Shoulder-spotted Wainscot (<i>Leucania comma</i>)	8	2011	0.3km	SU4320			✓					County scarce
Obscure Wainscot (<i>Leucania obsoleta</i>)	1	2000	1.6km	SU4421								County scarce

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
White Satin Moth (<i>Leucoma salicis</i>)	1	2004	1.9km	SU444181								County scarce
Four-spotted Footman (<i>Lithosia quadra</i>)	1	2006	1.9km	SU444181								County rare
Tawney pinion (<i>Lithophane semibrunnea</i>)	2	2000	1.6km	SU4421								County scarce
Rosy Minor (<i>Litologia literosa</i>)	1	2005	1.9km	SU444181			✓					
Diamond-spot Sable (<i>Loxostege sticticalis</i>)	1	2000	1.6km	1.9km								IUCN_GB_pre94:EX
Brindled Beauty (<i>Lycia hirtaria</i>)	6	2005	0.3km	SU4320			✓					
Lackey (<i>Malacosoma Neustria</i>)	8	2011	0.3km	SU4320			✓					
Small Black Arches (<i>Meganola strigula</i>)	1	1980	1.6km	SU4421								Nationally notable
Dot Moth (<i>Melanchra persicariae</i>)	10	2011	0.3km	SU4320			✓					
Pretty Chalk Carpet (<i>Melanthia procellata</i>)	1	2000	1.6km	SU4421			✓					
Beautiful Carpet (<i>Mesoleuca albicillata</i>)	4	2000	1.3km	SU4321								County scarce
Scarce Merveille du Jour (<i>Moma alpium</i>)	1	1980	1.6km	SU4421								IUCN_GB_pre94:NR
Buff Cosmet (<i>Mompha ochraceella</i>)	1	2011	1.9km	SU444181								County rare
Wainscot Neb	1	2009	1.9km	SU444181								Nationally scarce

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
(<i>Monochroa palustrellus</i>)												
Yellow-backed Clothes (<i>Monopis obviella</i>)	1	2009	1.9km	SU444181								County rare
Striped Wainscot (<i>Mythimna pudorina</i>)	2	1980	1.3km	SU4321								County scarce
Orange-rayed Pearl (<i>Nascia ciliaris</i>)	1	2009	1.9km	SU444181								Nationally scarce
Spindle Knot-horn (<i>Nephopterix angustella</i>)	2	2010	1.6km	SU4421								Nationally scarce
Rosy-striped Knot-horn (<i>Oncocera semirubella</i>)	2	2000	0.3km	SU4320								Nationally scarce
Northern Winter Moth (<i>Operophtera fagata</i>)	4	2003	1.3km	SU4321								County scarce
Powdered Quaker (<i>Orthosia gracilis</i>)	5	2007	1km	SU4119			✓				IUCN_GB_pre94:NR	
Blossom Underwing (<i>Orthosia miniosa</i>)	2	2011	1.6km	SU444181								County scarce
Northern Drab (<i>Orthosia opima</i>)	1	1980	1.6km	SU4421								County rare
Triangle moth (<i>Heterogenea asella</i>)	1	2000	1.6km	SU4421							IUCN_GB_pre94:NR	
Greater Tawny Tubic (<i>Batia lambdella</i>)	1	2005	1.9km	SU444181								County rare
Lead-coloured Drab (<i>Orthosia populeti</i>)	1	2000	1.6km	SU4421								County scarce
Small Yellow Underwing (<i>Panemeria tenebrata</i>)	1	2006	0.8km	SU438191								County scarce
Sloe Pug (<i>Pasiphila chloerata</i>)	1	2006	1.9km	SU444181								County rare

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
Waste Grass-veneer (<i>Pediasia contaminella</i>)	1	2006	1.9km	SU444181								Nationally scarce
Rivulet (<i>Perizoma affinitata</i>)	1	1997	1.4km	SU438209								County scarce
Grass Rivulet (<i>Perizoma albulata</i>)	1	2000	1.6km	SU4421								County scarce
Barred Rivulet (<i>Perizoma bifaciata</i>)	1	2009	1.9km	SU444181								County scarce
Hollyhock Seed Moth (<i>Pexicopia malvella</i>)	1	2010	1.9km	SU444181								Nationally scarce
Kent Bent-wing (<i>Phyllocnistis xenia</i>)	1	2016	0.069km	SU4219							IUCN_GB_pre94:VU	
Barred Umber (<i>Plagodis pulveraria</i>)	3	2000	1.3km	SU4321								County scarce
Pale Shining Brown (<i>Polia bombycine</i>)	2	1980	1.3km	SU4321			✓					
Large Ranunculus (<i>Polymixis flavicincta</i>)	2	2005	1.4km	SU438209								County scarce
Feathered Ranunculus (<i>Polymixis lichenea</i>)	1	2000	1.6km	SU4421								County scarce
Humped Crest (<i>Psoricoptera gibbosella</i>)	1	2010	1.3km	SU419204								County rare
Large Wainscot (<i>Rhizedra lutosa</i>)	5	2011	1.3km	SU4321			✓					
Dotted Rustic (<i>Rhyacia simulans</i>)	2	1980	1.6km	SU4421								County rare
Mullein Wave (<i>Scopula marginepunctata</i>)	3	2011	1.4km	SU438209			✓					
Shaded Broad-bar	4	2006	1.3km	SU4321			✓					

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
<i>(Scotopteryx chenopodiata)</i>												
Bordered gothic <i>(Sideridis reticulata)</i>	2	1980	1km	SU4119			✓					
Sulphur Pearl <i>(Sitochroa palealis)</i>	1	2000	1.6km	SU4421								National Notable
White Ermine <i>(Spilosoma lubricipeda)</i>	8	2011	0.3km	SU4320			✓					
Buff Ermine <i>(Spilosoma lutea)</i>	11	2011	0.3km	SU4320			✓					
Long-legged Tabby <i>(Synaphe punctalis)</i>	1	2010	1.9km	SU444181								Nationally scarce
Poplar Lutestring <i>(Tethea or)</i>	3	2005	1.3km	SU4321								County scarce
Hedge rustic <i>(Tholera cespitis)</i>	1	2005	1.9km	SU444181			✓					
Feathered Gothic <i>(Tholera decimalis)</i>	2	2000	1.3km	SU4321			✓					County scarce
Orange Sallow <i>(Tiliacea citrigo)</i>	1	2000	1.6km	SU4421								County scarce
Blood-vein <i>(Timandra comae)</i>	9	2010	0.3km	SU4320			✓					
Pale Eggar <i>(Trichiura crataegi)</i>	1	2000	1.6km	SU4119			✓					
Cinnabar <i>(Tyria jacobaeae)</i>	18	2020	0.3km	SU4220			✓					
Oak Hook-tip <i>(Watsonalla binaria)</i>	11	2009	0.3km	SU4218			✓					
Dark-barred Twin-spot carpet <i>(Xanthorhoe ferrugata)</i>	7	2009	0.6km	SU4218			✓					
Heath Rustic	1	1980	1.6km	SU4421			✓					County scarce

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
<i>(Xestia agathina)</i>												
Dotted Clay <i>(Xestia baja)</i>	1	2000	1.3km	SU4421								County scarce
Neglected Rustic <i>(Xestia castanea)</i>	1	1980	1.6km	SU4421								County scarce
Red Sword-grass <i>(Xylota vetusta)</i>	2	2000	0.3km	SU444181								County rare
Apple Ermine <i>(Yponomeuta malinellus)</i>	1	2000	1.9km	SU444181								County rare
Timothy Tortrix <i>(Zelothores paleana)</i>	1	2009	1.9km	SU444181								County rare
False codling moth <i>(Thaumatotibia leucotreta)</i>	1	1976	0.3km	SU4320								Notifiable species
Light Brown Apple Moth <i>(Epiphyas postvittana)</i>	8	2020	0.4km	SU434192								Hants INNS
Horse Chestnut Leaf Miner <i>(Cameraria ohridella)</i>	2	2010	0.9km	SU4419								Hants INNS
Mammals (excluding bats)												
Badger <i>(Meles meles)</i>	1	2002	1km	SU4118					✓			
Hedgehog <i>(Erinaceus europaeus)</i>	117	2020	0.07km	SU43131970			✓					WMP Act, 1996 ⁹
Hazel Dormouse <i>(Muscardinus avellanarius)</i>	12	2019	1km	SU429185	✓	✓	✓					
European Otter <i>(Lutra lutra)</i>	8	2016	0.82km	SU43881952	✓	✓	✓					
Water vole	42	2017	1km	SU44051931		✓ (5)	✓					

Species	No. of records	Latest Record	Nearest Record	Nearest Grid ref:	HSR ¹	W&C Act ²	SPI ³	Local SPI ⁴	Badger Protection Act, 1992	BOCC ⁵	IUCN Red List ⁶	Other
<i>(Arvicola amphibius)</i>												
Grey squirrel <i>(Sciurus carolinensis)</i>	28	2019	0.4km	SU432191		✓ (9)						
American mink <i>(Mustela vison)</i>	1	1996	1.6km	SU422181		✓ (9)						
Muntjac <i>(Muntiacus reevesi)</i>	3	2013	0.6km	SU4218		✓ (9)						
Reptiles												
Slow worm <i>(Anguis fragilis)</i>	74	2014	0.5km	SU 426191		✓ (5)	✓					
Grass snake <i>(Natrix Helvetica)</i>	8	2008	0.64km	SU43001900		✓ (5)	✓					
Adder <i>(Vipera berus)</i>	42	2016	0.64km	SU4318		✓ (5)	✓					
Common Lizard <i>Zootoca vivipara)</i>	22	2013	0.65km	SU4218		✓ (5)	✓					

1 Conservation of habitats and species regulations, 2017.

2 Wildlife and Countryside Act, 1981 (as amended) – Schedules (1, 5, 8 and 9).

3 Species of Principle Importance as listed under section 41 Natural Environment and Rural Communities Act, 2006.

4 Priority species/Species of Principle Importance as listed under local biodiversity action plan.

5 Birds of Conservation Concern as listed in (Eaton et al, 2018).

6 Species listed on the Global and National IUCN Red data list (EX – Extinct, Extinct in wild, CE - Critically Endangered, Endangered, VU - Vulnerable, NR - Near Threatened, LC – Least Concern, Data Deficient

7 GB Red Data Book: Under IUCN Criteria Includes Nationally Rare, Nationally Rare Marine, Nationally Scarce,

8 Hants (Hampshire) Invasive Non Native Species

9 Wild Mammals (Protection) Act, 1996

Appendix II – UK Habitat Classification Survey Species Lists

Table 11 - Species list for modified grassland (see g4, Figure 2a).

Common Name	Scientific Name	Abundance
Grasses		
False oat-grass	<i>Arrhenatherum elatius</i>	F
Cock's-foot grass	<i>Dactylis glomerata</i>	F
Yorkshire fog	<i>Holcus lanatus</i>	F
Creeping bent grass	<i>Agrostis stolonifera</i>	F
Rough meadow grass	<i>Poa trivialis</i>	O
Perennial Ryegrass	<i>Lolium perenne</i>	R
Forbs		
Yarrow	<i>Achillea millefolium</i>	A
Ribwort plantain	<i>Plantago lanceolata</i>	F
Guernsey fleabane	<i>Erigeron sumatrensis</i>	F
White clover	<i>Trifolium repens</i>	F
Common dandelion	<i>Taraxacum officinale</i>	O
Selfheal	<i>Prunella vulgaris</i>	O
Dove's-foot crane's-bill	<i>Geranium molle</i>	O
Daisy	<i>Bellis Perrnis</i>	O
Hedge bedstraw	<i>Galium mollugo</i>	R
Common ragwort	<i>Senecio jacobaea</i>	R
Creeping cinquefoil	<i>Potentilla reptans</i>	R
Germander speedwell	<i>Veronica chamaedrys</i>	R

Table 12 - Species list for Mixed scrub (see h3h, Figure 2a).

Common Name	Scientific Name	Abundance
Sycamore	<i>Acer pseudoplatanus</i>	A
Spindle	<i>Euonymus sp.</i>	A
Forsythia	<i>Forsythia spp</i>	A
Bramble	<i>Rubus fruticosus</i>	F
Cherry laurel	<i>Prunus laurocerasus</i>	F
Sycamore	<i>Acer pseudoplatanus</i>	F
Bramble	<i>Rubus fruticosus</i>	F
Common ivy	<i>Hedera helix</i>	F
Ash	<i>Fraxinus excelsior</i>	R

European beech	<i>Fagus sylvatica</i>	R
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Table 13 - Species list for Bramble Scrub (see h3d, Figure 2a).

Common Name	Scientific Name	Abundance
Bramble	<i>Rubus fruticosus</i>	D
Common lilac	<i>Syringa vulgaris</i>	R

Table 14 – Species list for treeline (See, w1gb, Figure 2a)

Common Name	Scientific Name	Abundance
Cypress sp.	<i>Cypress sp.</i>	D
Sycamore	<i>Acer pseudoplatanus</i>	O
Ivy	<i>Hedera heix</i>	A

Table 15 - Species list for other hedgerow (see h2b, Figure 2a).

Common Name	Scientific Name	Abundance
Privet	<i>Ligustrum sp.</i>	D

Table 16 – Species list for Developed land, Sealed surface, car park with scattered scrub (see u1b 10, 89, Figure 2a).

Common Name	Scientific Name	Abundance
Guernsey fleabane	<i>Conyza sumatrensis</i>	F
Annual meadow grass	<i>Poa annua</i>	O
Spindle	<i>Euonymus europaeus</i>	R
Sycamore	<i>Acer pseudoplatanus</i>	R
Privet	<i>Ligustrum sp.</i>	R

Appendix III – Bat Preliminary Roost Assessment Results

Table 17 – Bat Preliminary Roost Assessment field survey sheet for Building B1.

Building B1					
Building type	Commercial Structure				
Age	Unknown. Likely post 1960.				
Construction/condition	Brick built structure with render finish on the second story. Hipped roof with tiles. The building appears to be structurally intact with general wear and tear to the exterior with not notable damage. The roof appears in good condition and the roof tiles appear tightly locked.				
Setting	The site is surrounded by residential properties, with a large industrial complex to the north-west. Bournemouth Road is located immediately to the north and west of the site.				
External Potential Roosting Features and Access/Egress Points.					
Type	Aspect	Height	Dimension	Quantity	Description
Gap behind wooden boarding	North and west	3m	40cm x 10cm	4	Gaps behind temporary wooden boarding, currently covering the old shop sign. The features are quite open and exposed and would likely offer limited shelter from the elements, with water ingress also likely. This feature could be used opportunistically by a small number of bats but will not provide suitable cover and conditions required for maternity and hibernation roosts.

Missing mortar on 2 x tiles	South	6m	5cm x 5cm	2	The end tiles on the roof are all sealed with the exception of two tiles where the mortar has degraded creating a crevice suitable for a small number of bats. The back of the tiles could be seen with torchlight and appear to be blocked, allowing no further access within the building.
Limitations					
Limited access to loft	Internal inspection of the roof void or loft spaces was not possible as the roof void is completely sealed and there is no loft hatch. The possible presence of asbestos containing materials reported in Building B1 meant that an invasive entry to the loft voids was not deemed safe to do so.				
Suitability for bats					
Potential Roost Types	Day (Summer)	Maternity		Transitional	Hibernation
	✓	x		✓	x
Other Roost Types	n/a				
Evidence of bats	No evidence of bats was recorded during the external inspection of Building B1.				
Final Classification	Low				

Table 18 – Bat Preliminary Roost Assessment field survey sheet for Building B2.

Building B2	
Building type	Temporary and portable building

Age	Unknown. At least 20 years.				
Construction/ condition	Metal building that was used as a portable office or storage unit. The structural condition of Building B2 is intact, the exterior appears to be well worn and rusty.				
Setting	The site is surrounded by residential properties, with a large industrial complex to the north-west. Bournemouth Road is located immediately to the north and west of the site.				
External and Internal Potential Roosting Features and Access/Egress Points.					
Type	Aspect	Height	Dimension	Quantity	Description
No potential roosting features or access/egress points suitable for bats were recorded at Building B2.					
Limitations					
n/a					
Suitability for bats					
Potential Roost Types	Day (Summer)	Maternity		Transitional	Hibernation
	x	x		x	x
Other Roost Types	n/a				
Evidence of bats	No evidence of bats was recorded during the external and inspection of Building B2.				
Final Classification	Negligible				

Appendix IV – Legislation and Planning Policy

9.2 Background

9.2.1 This section provides a summary of the legislation and planning policy that could be relevant to the development. Where possible we have limited this section to the areas relevant to this report. This means the legislation and planning policy outlined below is not included in its entirety.

9.2.2 This section does not constitute legal advice, and only, represents the interpretation and professional judgement of the ecologists named in this report, on the legislation and planning policy relevant to the development.

9.3 RAMSAR Convention

9.3.1 RAMSAR sites are wetlands of international importance that have been designated under the criteria of the RAMSAR Convention on Wetlands for containing representative, rare or unique wetland types or for their importance in conserving biological biodiversity (JNCC, 2019).

9.3.2 The National Planning Policy Framework (NPPF, 2019) outlines the level of consideration that should be given to RAMSAR sites in Planning. Paragraph 191 states that RAMSAR and potential RAMSAR sites should be given the same protection as 'habitat sites' defined as those afforded protection under the Conservation of Habitat and Species Regulations (2017), such as Special Protection Areas or Special Areas of Conservation.

9.4 Conservation of Habitat and Species Regulations, 2017

9.4.1 The Conservation of Habitats and Species Regulations, 2017 transposes the EC Habitats Directive and some elements of the EC Bird Directive into national law in England and Wales. The objective of the Habitats Directive is to protect biodiversity through the conservation of natural habitats and species of wild fauna and flora. The directive lays down rules for the protection, management and exploitation of such habitats and species.

Protected Species

9.4.2 The regulations include provisions that prohibit certain actions from the protection of species listed under Annex II of the Habitat Directive. It is a criminal offence for a person to 'intentionally or recklessly' take the following action:

- Deliberately capture, injure or kill any wild animal of a European Protected species;
- Deliberately disturb wild animals of any such species in such a way as to be likely to affect significantly the local distribution or abundance of the species to which they are likely to belong;
- Deliberately take or destroy eggs of any such wild animal;
- Deliberately pick, collect, uproot or destroy a wild plant of a European Protected Species; and
- Keep transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal or plant of a European protected species, or any part of or anything derived from such an animal or plant.

9.4.3 The disturbance of such animals includes in particular; any disturbance that is likely to impact their ability;

- To survive, to breed or reproduce, or to rear or nurture their young;
- In case of animals of a hibernating or migratory species, to hibernate or migrate; or
- To affect significantly the local distribution or abundance of the specie to which they belong.

Protected Sites

9.4.4 The Conservation of Habitats and Species Regulations, 2017 puts an obligation on the appointed appropriate authority for England & Wales to establish priorities for a network of nationally important sites.

9.4.5 The aforementioned sites, often referred to as European protected sites are formed of two types of sites, Special Protection Areas (sites specifically designated for birds) and Special Areas of Conservation (specifically designated for fauna and flora). The objective is for all species and habitats covered by these sites to contribute towards the maintenance and restoration of their favourable conservation status.

9.4.6 Designation can include but is not limited to the following reasons:

- A natural habitat type specific in Annex I of the Habitat Directive;
- A species specified in Annex II of the Habitats Directive;

- For the coherence of the national network of protected sites; and
- For threats of degradation or destruction to which the sites are exposed.

9.5 Wildlife and Countryside Act, 1981 (as amended)

9.5.1 The Wildlife and Countryside Act, 1981 (as amended) primarily transposes the UK Governments obligations under the Bird Directive and Bern Convention into law. The act outlines provisions for the protection of nationally important sites for nature conservation and provides protection at different levels for certain animals and plants, including certain prohibitions.

Protection of Birds

9.5.2 Part 1 – Section 1 includes certain prohibitions for the protection of birds which make it a criminal offence for a person to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage, or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy the egg of any wild bird;
- Have in any ones possession or control any egg or part of an egg which has been taken in contravention of the Act or the Protection of Birds Act, 1954;
- Use traps or similar items to kill, injure or take wild birds;
- Have in ones possession or control any bird of a species occurring on schedule 4 of the Act unless registered, and in most cases ringed, in accordance with the secretary of state's regulations; and
- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the independent young of such a bird.

Protection of Animals

9.5.3 Part 1 – Section 9 of the act includes certain prohibitions for the protection of certain animals named in schedule 5 . In summary offences include:

- If any person intentionally or recklessly kills, injures or takes any wild animal included in schedule 5;

- If any person has in his possession or control any live or dead wild animal included in schedule 5, or any part of, or anything derived from, such an animal;
- If any person intentionally or recklessly damages or destroys, or obstructs access to, any structure or place which any wild animal included in schedule 5 uses for shelter or protection; or
- Disturb any such animal while it is occupying a structure or place which it uses for that purpose; and
- Sells, offers or exposes for sale, or has in his possession or transports for the purpose of sale, any live or dead wild animal included in schedule 5, or any part of, or anything derived from, such an animal, or publishes or causes to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things.

Protection of Plants

9.5.4 Part 1 – Section 13 includes certain prohibitions for the protection of certain wild plants named in schedule 8. In summary offences include if any person:

- Intentionally picks, uproots or destroys any wild plant included in schedule 8, or not being an authorised person, intentionally uproots any wild plants not included in that Schedule;
- Sells, offers or exposes for sale, or has in his possession or transports for the purpose of sale, any live or dead wild plant included in schedule 8, or any part of, or anything derived from, such a plant; or
- Publishes or causes to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things.

Invasive Species

9.5.5 Part 1 – Section 14 includes certain prohibitions for the introduction of certain invasive species named in schedule 9 of the act. In summary offences include if any person:

- Subject to the provisions of this part , any person who plants, or otherwise causes to grow, any plant in the wild at a place out with its negative range is guilty of an offence.

Sites of Specific Scientific Interest

- 9.5.6** Part 2 – Sections 28-33 of the act set out the law regarding Sites of Specific Scientific Interest (SSSI) by the conservation bodies in England (Natural England) and Wales (Natural Resource Wales) and outlines the offences with respect to SSSI.
- 9.5.7** The offences outlined in the act apply to any person(s), public body, land owner or occupier as well as statutory undertakers or permitted developments. Examples of offences include (but are not limited to):
- Any person intentionally or recklessly damaging or destroying any of the features of special interest of an SSSI, or disturbing wildlife for which the site was notified;
 - Public bodies are not allowed to carry out damaging operations on an SSSI, except where they notified the relevant conservation agency. It is also an offence for a public body to fail to minimise damage done on an SSSI or – if damage occurs – to fail to restore a SSSI to its former state; and
 - Statutory bodies have a general duty to take reasonable steps to further to conservation and enhancement of the special feature of SSSI's;
 - Where statutory bodies propose to undertake or permit activities that could affect a SSSI they must consult the relevant statutory nature conservation agency. If the activity cannot be avoided it must be undertaken in a way least damaging to the SSSI; and
 - If you are the owner or occupier of a SSSI, it is an offence to carry out any activity that may likely damage the SSSI without consent from the relevant conservation agency. The law requires that you inform the conservation agency of any changes in the ownership or occupancy.

Other Protected Areas

- 9.5.8** Part 2 – Section 34 to 52 of the act deals with other protected areas within the UK such as limestone pavements, national nature reserves and marine nature reserves. The act allows designation of these sites by the appropriate authority for the purpose of conserving flora and fauna or geological or physiological features of specific interest in an area to protect the site. Furthermore, the act prohibits certain actions in National Parks for certain habitats without consent from local authorities.

9.6 Countryside Right of Ways Act, 2000

- 9.6.1** The Countryside Right of Ways Act, 2000 (CRoW Act, 2000) makes provisions for public access, amends the law for public rights of ways and amends existing law on nature conservation and the protection of wildlife as well as makes further provisions for Areas of Outstanding Natural Beauty.

Wildlife Legislation

- 9.6.2** Part III of the CRoW Act, 2000 includes provisions for wildlife protection and nature conservation and includes amendments to the Wildlife & Countryside Act, 1981.
- 9.6.3** Schedule 9 of the CRoW Act, 2000 increases powers for the protection and management of SSSI. There are increased powers for appropriate authorities to secure management agreements for SSSI. A duty is placed on public bodies to have regard for the continued conservation and enhancement of SSSI. Furthermore, there are increased penalties for the prosecution of wildlife crime, including for third parties that damage SSSI.
- 9.6.4** Schedule 12 of the CRoW Act, 2000 makes certain offences under the provision of the Wildlife and Countryside Act, 1981 arrestable. Greater powers are given to police and appointed wildlife inspectors under the CRoW Act, 2000 and enables heavier penalties for the prosecution of wildlife crime.

9.7 Natural Environment & Rural Communities Act, 2006

- 9.7.1** The Natural Environment and Rural Communities Act (NERC), 2006 is primarily intended to implement key aspects of the governments rural strategy published in July 2004. It also addresses a wider range of issues relating broadly to the natural environment.

Section 40

- 9.7.2** Section 40 of the NERC Act, 2006, places a duty on any public authority and statutory undertaker to have due regard for the conservation and enhancement of biodiversity when delivering their functions, extending the provisions outlined under section 74 of the CRoW Act, 2000.
- 9.7.3** The policy goes on to state that conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population of that habitat.

Section 41

9.7.4 Section 41 of the NERC Act, 2006 requires the secretary of state in consultation with Natural England to outline Species of Principle Importance (SPI) and Habitats of Principle Importance (HPI) that in their opinion are important for the conservation of biodiversity.

9.7.5 The secretary of state is required to:

- Take such steps as appear to the secretary of state to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any list published under this section; or
- Promote the taking by other of such steps.

9.7.6 The NERC Act, 2006 also provides some amendments to the Wildlife & Countryside Act, 1981 (as amended) and includes provisions for enforcement powers and the protection of SSSI.

9.8 Protection of Badgers Act, 1992

9.8.1 The Protection of Badgers Act, 1992 makes it a criminal offence to wilfully kill, injure or take any badger, or attempt to do so. It also makes it an offence to intentionally or recklessly damage, destroy or obstruct access to any part of a badger sett.

9.9 Wild Mammals (Protection) Act, 1996.

9.9.1 The Wild Mammals (Protection) Act, 1996 makes provision for the protection of wild mammals from certain cruel acts, and for connected purposes. It would be an offence for any person that mutilates, kicks, beats, nails or otherwise impales, stabs, burns, stones, crushes, drowns, drags or asphyxiates any wild animal with intent to inflict unnecessary suffering.

9.10 The Environmental Act, 2021

9.10.1 The Environmental Act, 2021 gained royal ascent on the 9th November, 2021. The act is wide ranging and broadly has the following aim:

‘a bill to make provision about targets, plans and policies for improving the natural environment, for statements and reports about environmental protection; for the office of environmental protection; about waste and resource efficiency; about air quality; for the recall of products that fail to meet environmental standards, about water, about nature and biodiversity; for conservation covenants; about the regulation of chemicals, and for connected purposes’.

Nature and Biodiversity

- 9.10.2** Part 6 – Sections 98-101 of the act outline provisions for biodiversity gain in planning.
- 9.10.3** Schedule 14 makes provision for biodiversity gain to be a condition of planning permission in England.
- 9.10.4** Schedule 14 states that, the biodiversity gain objective is met in relation to development for which planning permission is granted if the biodiversity value attributable to the development exceeds the pre-development biodiversity value of the on-site habitat by at least the relevant percentage.
- 9.10.5** It goes on to state that the biodiversity value attributable to the development is the total of:
- The post development biodiversity value of the on-site habitat;
 - The biodiversity value, in relation to the development, of any registered offsite biodiversity gain allocated to the development; and
 - The biodiversity value of any biodiversity credits purchased for the development.
- 9.10.6** The relevant percentage is set at 10% for biodiversity gain.
- 9.10.7** Part 6 – Section 100 of the act outlines provisions by regulation for the secretary of a register of biodiversity gain sites (known as the biodiversity gain site register).
- 9.10.8** A biodiversity gain site is land where:
- A person is required under the conservation covenant or planning obligation to carry out works for the purpose of habitat enhancement;
 - That or another person is required to maintain the enhancement for at least 30 years after the completion of the works; and
 - For the purpose of schedule 7A to the Town and Country Planning Act, 1990 the enhancement is made available to be allocated (conditionally or unconditionally, and whether for consideration or otherwise) in accordance with the terms of the covenant or obligation to one or more developments for which planning permission is granted.
- 9.10.9** Part 6 – Section 101 states that the secretary of state may make arrangements under which a person who is entitled to carry out the development of any land may purchase a credit from the secretary of state for the purpose of meeting the

biodiversity gain objective referred to in schedule 7A to the Town and Country Planning Act, 1990 Schedule 2A of the Planning Act, 2008.

9.10.10 A credit is to be regarded for the purpose of that schedule as having such biodiversity value as is determined under the arrangements.

9.10.11 The arrangements may in particular include arrangements relating to:

- Applications to purchase credits
- The amount payable in respect of a credit of a given value;
- Proof of purchase;
- Reimbursement for credits purchased for development which is not carried out.

9.11 National Planning Policy Framework (2021)

9.11.1 The National Planning Policy Framework (NPPF, Ministry of Housing Communities and Local Government, 2021) sets out the Governments planning policies for England and how these should be applied. It provides a framework which locally prepared plans for housing and other developments can be produced.

9.11.2 The NPPF supplements Government Circular: Biodiversity and Geological Conservation 06/2005 (Office of the Deputy Prime Minister, 2005).

Conserving and enhancing the natural environment

9.11.3 Paragraph 174 of the NPPF states – planning policies and decisions should contribute to and enhance the natural and local environment by:-

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a matter commensurate with their statutory status or identified quality in the development plan;
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- e) preventing new and existing development from contributing to, being put at an unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, where possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

9.11.4 Paragraph 179 States. In order to protect and enhance biodiversity and geodiversity, plans should:

- a) 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
- b) 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.

9.11.5 Paragraph 180 states. When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from the development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development on land within or outside a SSSI site, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of species scientific interest, and any broader impacts on the national network of SSSI sites.

- c) Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and suitable compensation strategy exists; and
- d) Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

9.11.6 Paragraph 180 States. The following should be given the same protection as habitats sites:

- a) potential Special Protection Areas and possible Special Areas of Conservation;
- b) listed or proposed Ramsar sites⁶⁴; and
- sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

9.11.7 Paragraph 181 is also relevant to the development It states:

The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

9.11.8 Paragraph 175 is also relevant stating that, plans should distinguish between the hierarchy of international, national and locally designated sites, allocated land with the least environmental or amenity value, where consistent with other policies in this framework ; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; ad plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

9.12 Biodiversity and Geological Conservation Circular 06/2005

9.12.1 Biodiversity and geological conservation circular 06/2005 provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. It complements the national planning policy in the NPPF, 2019 and the Planning Practice Guidance. Broadly the guidance covers designated

sites, the conservation of habitats and species, including outside of designated sites, protected species by law and the duties and powers used by planning authorities.

- 9.12.2** Paragraph 82 of the guidance states that 'in determining the application for development that is covered by up to date standing advice, a planning authority must take into account this standing advice'.

Protected Species and planning

- 9.12.3** Paragraph 98 of the guidance states 'the presence of a protected species is a material planning consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat'.
- 9.12.4** Paragraph 98 also states that 'they (the planning authority) should consider attaching appropriate planning conditions or entering into planning obligations under which the developer would take steps to secure the long-term protection of the species.'
- 9.12.5** Paragraph 99 of the guidance goes on to state: 'it is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision'. Paragraph 99 also states that 'this is justified only, where there is a reasonable likelihood of the species being present and affected by the development.'

9.13 Eastleigh Borough Council Local Plan (2022)

- 9.13.1** Policy DM11 of the Eastleigh Borough Council (EBC) Local Plan (2022) sets out EBCs commitment to protecting biodiversity in the district.

General approach

- 9.13.2** The Council will work with statutory and voluntary agencies and developers, and will determine planning applications, to:
- A) protect, conserve and enhance all:
 - i. international, national and local nature conservation designations; and
 - ii. networks of natural habitats and features, including the Local Ecological Network, Priority Biodiversity Areas and Priority Biodiversity Links,

watercourses, wetland complexes, woodland trees, and trees and hedgerows important to biodiversity and local character; and facilitate their adaptation to climate change wherever possible.

- B) assist in achieving national, county and local biodiversity targets as set out in Biodiversity Action Plans (BAPs);
- C). seek a net gain of biodiversity on all development sites (including sites for redevelopment) through the protection, enhancement and connection of existing and provision of new habitats and features of nature conservation interest compatible with the native biodiversity characteristics of the Borough, having regard to local geodiversity and soils; and
- d. contribute to major elements of the PfSH Green Infrastructure Strategy and other strategies for the provision and enhancement of multifunctional green infrastructure including green routes, ecological networks and biodiversity enhancements (see strategic policy S9).

International Designations

- 9.13.3** 2. Development which is likely (either individually or in combination with other developments) to adversely affect the integrity of an international or European nature conservation site will not be permitted subject only to imperative reasons of overriding public interest and securing any necessary compensatory measures in the absence of alternative solutions. A 'project level' Habitat Regulations Assessment will be required where there are likely significant effects or uncertainty. Any mitigation measures required to ensure no adverse impact must be implemented at the appropriate time.
- 9.13.4** 3. The Council will work with PfSH, Natural England, the Environment Agency and other wildlife organisations to develop and implement with developers a strategic approach to the protection and enhancement of international and European sites from the direct and indirect effects of development. Within Eastleigh Borough this will include:
- implementing:
 - i. the Solent Recreation Mitigation Strategy (requiring contributions from residential developments within 5.6 kilometres of the Solent Special Protection Area to the Strategy); and

- ii. the interim and any future New Forest Recreation Mitigation Strategy if 75 Adopted EBC Local Plan 2022 required; or alternative agreed site specific measures to address recreational disturbance;
- b. preserving the water quality and flows within the Itchen and Hamble, Southampton Water and Solent;
- c. protecting the River Itchen SAC, in particular the maintenance and where appropriate restoration of habitats and qualifying species to favourable conservation status (as defined by article 1 of the Habitats Directive); and
- d. seek contributions towards measures set out in the Southern Damselfly Conservation Strategy (or other strategy) specifically to deliver biodiversity net gain.

National and Local Designation

- 9.13.5** 4. Development will not be permitted if it is likely (either individually or in combination with other developments) to have a direct or indirect adverse effect on a Site of Special Scientific Interest (SSSI), Site of Importance for Nature Conservation (SINC) or Local Nature Reserve (LNR) as shown on the policies map (or on a more recent plan provided by the Hampshire Biodiversity Information Centre) unless it can be demonstrated that:
- a. there are no alternative solutions;
 - b. the adverse effects are unavoidable;
 - c. measures are taken to mitigate or, as a last resort, compensate for the adverse effects;
 - d. there is an overall biodiversity net gain; and
 - e. if there are any residual adverse effects which cannot be avoided, mitigated or compensated, the benefits of the development must clearly outweigh the adverse effects on the nature conservation value of the site and any broader impacts on national and local designations.

Priority habitats, protected and priority species and the local ecological network

- 9.13.6** 5. Development will not be permitted if it is likely (either individually or in combination with other developments) to have a direct or indirect adverse effect on

priority habitats, protected or priority species, or on the local ecological network unless it can be demonstrated that:

- a. there are no alternative solutions;
- b. the adverse effects are unavoidable;
- c. measures are taken to mitigate or, as a last resort, compensate for the adverse effects;
- d. there is an overall biodiversity net gain; and
- e. if there are any residual adverse effects, the benefits of the development clearly outweigh the adverse effects on priority habitats, priority and protected species, and the local ecological network.

Irreplaceable habitats

- 9.13.7** 6. Development will not be permitted if it results in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees), unless there are wholly exceptional reasons and a suitable compensation strategy 76 Adopted EBC Local Plan 2022 exists.

Buffers

- 9.13.8** 7. Buffers free from development will be provided to designated sites to avoid/mitigate impacts, including recreational impact and impacts on edge habitats, and to maintain dark skies.

Surveys

- 9.13.9** 8. Development will not be permitted unless it can be demonstrated that: a. there have been thorough habitat and species surveys; b. the great crested newt strategic survey and strategy have been considered in all developments within 500m of a great crested newt pond; and c. the strategic bat trapping survey has been considered in all developments within the locality of a woodland or connected habitat networks.

9.14 25 year government environment plan

- 9.14.1** A green future: Our 25 Year Plan to Improve the Environment, sets out broadly what the UK governments approach to maintaining and enhancing the natural environment will be over the next 25 years. It is part of the UK governments goal to be the first generation to 'leave our environment in a better state than we found it'.

The plan covers cleaner air and water, public forests and woodland, marine protected areas, special protection including thriving plants and wildlife, administrative and governance issues.

9.15 Birds of Conservation Concern

9.15.1 Birds of Conservation Concern is a report compiled by a coalition of the UK's leading bird conservation and monitoring organisations and reviews the conservation status of all regularly occurring birds in the UK, Channel Islands and Isle of Man. The report was first released in 1996 and is currently in its 5th edition, released in 2021.

9.15.2 The bird species that breed and overwinter in the UK are assessed against a set of objective criteria and placed on the Green, Amber or Red lists that indicate the levels of conservation concern. The quantitative criteria collected is assessed against the historical decline, recent trends in population and range, population size, localisation and the level of international importance of each species, as well as its global and European threat status.

9.16 IUCN Red List

9.16.1 The international Union for Conservation of Nature (IUCN) Red List of Threatened Species (also known as the IUCN Red List or Red Data Book) is an inventory of the global conservation status of biological species. The inventory is based upon internationally accepted criteria that evaluates the extinction risk of species in all regions of the world. There are two types of red list, the global and national lists. In the UK the IUCN Red List is overseen by an inter-agency working group that is coordinated by the Joint Nature Conservation Committee.

9.17 Bibliography – Appendix III

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