LIZARD
Landscape Design and Ecology

PRELIMINARY ECOLOGICAL APPRAISAL

Land at Chesapeke and Meadow View, Reeds Lane, Sayers Common

On behalf of: Antler Homes

Client:	Antler Homes			
Project:	Land at Chesapeke and Meadow View, Reeds Lane, Sayers Common			
Reference:	LLD2818-ECO-REP-001-00-PEA			
Revision:	**Date:**	**Author**	**Proof**	**Approved**
00	15/12/22	Catherine O'Reilly MCIEEM	George Sayer MCIEEM	George Sayer MCIEEM

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Validity:

This report is valid for 18 months from the date of the site visit. If works have not commenced by this date, an updated site visit should be carried out by a suitably qualified ecologist to assess any changes in the habitats present on site, and to inform a review of the conclusions and recommendations made.

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SUMMARY

Lizard Landscape Design and Ecology has been commissioned by Antler Homes to undertake a Preliminary Ecological Appraisal of Land at Chesapeke and Meadow View, Reeds Lane, Sayers Common (*Grid Reference: TQ 26509 18043– hereafter referred to as 'the site'*). A site visit was undertaken on 6th December 2022.

The main body of the site is dominated by modified grassland fields with areas of tall ruderal species; the plant species on site were common and widespread species; no rare or unusual species were recorded. The habitats which are to be directly affected by the development proposals are generally of value within the site area only. The hedge lines and woodland surrounding the site are of local value and should be retained where possible. The site has some potential to support protected species, and further survey work is required to rule-out the presence of these species on site.

A summary of recommendations is as follows:

- Undertake a HSI assessment and potential eDNA survey of ponds within 500m from mid-April 2023;
- Undertake a full reptile survey on site to ascertain the presence or likely absence of this species group, to begin between mid-March and September 2023.
- Monitor mammal holes within B02 to rule out the presence of a badger sett. Sett monitoring can be completed all year.
- Retain all trees identified as offering Bat Roost Suitability with a suitable buffer to avoid disturbance, or survey between May and August 2023;
- Complete 1no. dawn or dusk bat survey of B04 to rule out the presence of a bat roost within this building;
- Retain all surrounding mature trees / hedges where possible;
- Employ a sensitive lighting scheme across the site with all light spill onto trees and hedges avoided. Lighting should be designed in accordance with ILP Guidance Note 08/18.
- Remove any areas of hedging, trees, scrub or B02 outside the bird nesting season (Nesting season: March – July inclusive) or following inspection to ensure no active nests are present.

Recommendations for enhancement which should be included within the scheme are detailed in section 7.0 below.

1.0 INTRODUCTION

1.1 Lizard Landscape Design and Ecology has been commissioned by Antler Homes to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) of Land at Chesapeke and Meadow View, Reeds Lane, Sayers Common (*Grid Reference: TQ 26509 18043– hereafter referred to as 'the site'*).

1.2 The purpose of this report to establish the site's suitability for development, inform the design process for the proposal, record the ecological baseline and identify key ecological features within and around the proposal site.

1.3 This report has been compiled in accordance with current guidelines, including British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development, 2013 and CIEEM, 2017 and 2018.

Site Information

1.4 The survey area covers c. 1.5 hectares (ha) of grassland fields located towards the south-western edge of Sayers Common. The site is enclosed by mature, mixed-species hedge and treelines and is bordered by Reeds Lane to the north, residential properties to the east and west and farmland to the south.

Surrounding Landscape

1.5 The surrounding landscape is rural, with the nearest large settlement of Burgess Hill located 3.1 (km) to the east, while the properties of Hurstpierpoint are located 1.5km south-east. Surrounding land is dominated by arable fields and grazing land interspersed with small shaws and mature tree / hedge lines.

Development Proposals

1.6 It is understood that the development proposals include the construction of a c. 33no. new residential dwellings with associated access, gardens and parking.

2.0 SCOPE OF THE SURVEY

2.1 The aim of the preliminary ecological appraisal survey has been:

- To identify the main habitat types present on site;
- To assess the likely importance of the habitats present;
- To assess the likely presence of protected species;
- To provide recommendations for surveys of protected species where necessary;
- To list ecological constraints present on the site;
- To highlight any ecological opportunities and list potential enhancements for inclusion within the scheme.

3.0 METHODOLOGY

3.1 Desk Study

3.1.1 A desk study was conducted to establish the presence of priority habitats, protected species and statutory designated sites within the Zone of Influence (ZoI) of the proposed development site.

3.1.2 The desk study identified Local Nature Reserves (LNR) and Sites of Special Scientific Interest (SSSI) within 2.0km of the site and European Designated sites including Special Areas of Conservation (SAC) and Special Protected Areas (SPA) within 10km of the site. Where SAC's designated for their bat interest are present this ZoI has been extended to 12km in accordance with recent guidance (SDNP, 2020).

3.1.3 Sussex Biodiversity Records Centre (SxBRC) provided records of all protected and notable species within a 2.0km radius of the site.

3.1.4 In accordance with Natural England's GCN Mitigation Guidelines (English Nature, 2001) a desktop search was undertaken to identify ponds within 500m and 250m of the site using Ordnance Survey mapping, the *MAGIC* database and aerial photography.

3.2 Preliminary Ecological Appraisal

Field Survey

3.2.1 The field survey was undertaken on 6th December 2022 by a Suitably Qualified Ecologist (Catherine O'Reilly, MCIEEM, 9 years professional experience). Weather conditions were cool (c.7°C), with a light south-westerly wind (Beaufort Scale 2), 20% cloud cover and dry.

3.2.2 The field survey comprised a walkover inspection of the land and covered all accessible parts of the site, including boundary features. Habitats were recorded according to the UKHabs Classification System as described within the UK Habitats Manual (Butcher *et al*, 2020). All habitats present on-site were mapped using standard UKHab hatches (Figure No. 01 – Site Habitat Plan).

3.2.3 A list of plant species was compiled, together with an estimate of abundance made according to the DAFOR scale (*Table 05*). In addition, Target notes were used to provide supplementary information on features which were particularly interesting or significant to specific construction proposals, or too small to map.

3.2.4 The survey methodology was extended to provide more detail in relation to the sites potential to support rare or protected fauna, as described by the *Chartered Institute of Ecology and Environmental Management's Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017b)*. The assessment of habitat suitability for protected, rare or priority species is based on current good practice guidance such as that presented in the *Herpetofauna Workers' Manual (Gent and Gibson, 2003)* and *Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collin (ed.), 2016*).

Evaluation Criteria

3.2.5 The importance of ecological features have been evaluated in relation to a geographical frame of reference, i.e. international/European value, national, regional, county, local or site / negligible value (based on CIEEM, 2018).

3.3 Preliminary Bat Roost Assessment

3.3.1 A Preliminary Bat Roost Assessment was undertaken on 6th December 2022 by an experienced, licenced bat surveyor (Catherine O'Reilly 2016-20460-CLS-CLS) who undertook an internal and external assessment of all buildings and ground level assessment of trees within the proposed construction zone.

3.3.2 The bat surveyor assessed the trees and existing buildings visually and searched for evidence such as:

- Grease Marks;
- Urine Stains;
- Bat Droppings;
- Feeding Remains;
- Dead or Live Bats.

3.3.3 Trees were visually identified from the ground, using binoculars where necessary, for features that could be used by bats such as:

- Woodpecker Holes;
- Knot Holes;
- Tear-outs;
- Flush Cuts;
- Double Leaders.

3.3.4 Buildings were assessed for features that could be used by bats such as:

- Lifted or slipped roof tiles;
- Lifted or slipped hanging tile;
- Raised flashing;
- Gaps at soffits or fascias;
- Gaps in brickwork.

3.3.5 Once features had been assessed the trees were then categorised in accordance with *Table 4.1 of the Bat Conservation Trust's Good Survey Guidelines (2016):*

Table No. 01 – Summary of Categorisation Criteria

Category	***Buildings***	***Trees***
`Negligible`	*No suitable features identified.*	*No suitable features identified.*
`Low`	*A structure which could be used opportunistically, however, are not likely to be used on a regular basis / by a large number of bats.*	*Tree of sufficient size / age to support bat roost features; but with none identified from the ground.*
`Moderate`	*A building with features which, could be used regularly by a small number of bats.*	*Tree with features which, may support a bat roost of low conservation status.*
`High`	*A building with features suitable for use by a large number of bats on a regular basis.*	*A tree with several potential bat roost sites that are suitable for use by a large number of bats.*

3.4 Badger Walkover Survey

3.4.1 The site was systematically searched during the site visit for any evidence of badger such as:

- Setts
- Latrines
- Snuffle Holes
- 'Push-unders' through boundary fencing
- Hair
- Prints
- Mammal tracks

3.4.2 All areas within the site, and where possible in the immediate surroundings were searched. Any evidence was then mapped to allow the status and distribution of badger activity to be assessed.

3.5 Constraints and Limitations

3.5.1 Due to the field survey consisting of only one site visit, certain species, particularly some of the flowering plants, may not have been visible or may have been otherwise inconspicuous at the time of the survey and hence overlooked. These are accepted constraints associated with the standard *UKHabs Survey Methodology*.

3.5.2 No other limitations were encountered, or assumptions made during either the desk study or the field survey and it is considered that with the access gained and recording undertaken an accurate assessment of the site's ecological value has been made.

4.0 RESULTS

4.1 Desk Study

4.1.1 The following designated sites are not necessarily representative of the existing site's ecology but are indicative of the ecological context of the surrounding area; a factor that may be important when assessing the presence / absence potential of certain species groups.

Statutory Protected Sites

4.1.2 The desk study found no statutory protected sites within the anticipated Zone of Influence of the development.

4.1.3 The site is located within the *Impact Risk Zone* of *Wolstonbury Hill SSSI,* located 4km south and designated for its chalk grassland, however development proposals do not meet the criteria which would require consultation with Natural England.

Non-Statutory Protected Areas

4.1.4 *Sites of Nature Conservation Importance* (*SNCIs*) are designations applied to the most important non-statutory nature conservation sites. Certain habitats, such as Ancient Semi-Natural Natural Woodland, also receive protection. These areas are recognised by the *National Planning Policy Framework* (Ministry of Housing, Communities & Local Government, 2021) and as such are material considerations when assessing planning applications. There are no SNCI's located within 1.0km of the site, however the following areas of Irreplaceable Habitat were recorded:

Table No. 02 – Non-Statutory Protected Sites

Site	Location
Furze Field – Ancient Woodland	*0.2km N*
Sayers Common Wood – Ancient Woodland	*0.13km E*

Priority Habitats

4.1.5 Within 2.0 km of the site there are *Priority Habitats* of *Lowland Mixed Deciduous Woodland (*much of which is *semi-natural Ancient Woodland), Traditional Orchard, Ponds* and *Hedgerows.*

4.2 Habitats

Site Assessment

4.2.1 Habitats within and adjacent to the site include:

- g4 – Modified Grassland
- g4, 17, 119 – Seasonally Wet Modified Grassland with Ruderal / Ephemeral
- u1b5 – Building
- u1b – Developed Land; Sealed Surface
- u1c – Artificial Unsealed Surface
- h3a6 – Other Blackthorn Scrub
- h3d – Bramble Scrub
- w1g6 – Line of Trees
- h2a 190 – Priority Hedgerow with Trees
- h2a – Hedgerow (Priority)
- h2b – Other Hedgerow
- r2b – Other Rivers and Streams

Modified Grassland

4.2.2 All 3no. main fields with the proposed construction zone had a sward height of 10 – 20cm at the time of the survey, dominated by grasses with on average 3-5 species/m^2. Common agricultural grasses such as perennial rye grass *Lolium perenne*, Yorkshire fog *Holcus lanatus* and creeping bent *Agrostis stolonifera* dominate, with frequent areas of curly dock *Rumex crispus* and creeping buttercup *Ranunculus repens.* Common fleabane *Pulicaria dysenterica* grows in wetter areas while common nettle *Urtica dioica* extends from the margins in areas.

4.2.3 The eastern field exhibits a slightly greater species diversity, with occasional / rare vetch *Vicia sp.,* timothy *Phleum pratense* and dovesfoot cranesbill *Geranium molle*, although species diversity in general remained poor. The modified grassland on site is of low diversity and assessed as **site value.**

Seasonally Wet Modified Grassland with Ruderal / Ephemeral

4.2.4 The southern-most field comprises tussocky Yorkshire fog, cocks-foot *Dactylis glomerata* and false oat *Arrhenatherum elatius* grasses with locally dominant areas of creeping buttercup and occasional creeping cinquefoil *Potentilla reptans* and dock.

4.2.5 An area towards the centre of the field was wet underfoot at the time of the survey with vegetation indicative of waterlogging including rushes *Carex sp.*, hemlock water dropwort *Oenanthe crocata*, common fleabane and water mint *Mentha aquatica*. This field parcel is more structurally diverse and is considered to be of **low local value.**

Building

4.2.6 4no. different buildings were recorded on site, each of differing construction and ages. These included a detached dormer bungalow to the northern section of the site, dilapidated stables to the centre and 2no. steel-frame buildings containing an indoor riding school and stables. A full preliminary roost assessment of these buildings is detailed within section 4.3.

Developed Land; Sealed Surface

4.2.7 A small area of tarmac hardstanding is located to the east of the indoor riding school and stables. This habitat is of **negligible value.**

Artificial Unsealed Surface

4.2.8 A sand and rubber menage is located towards the centre of the site while the access track along the western boundary and parking area to the north of the bungalow (B4) are formed of compacted gravel. Ephemeral species such as mouse-ear chickweed *Cerastium sp.* and hairy bittercress *Cardamine hirsuta* have colonised areas. This habitat is of **negligible value.**

Other Blackthorn Scrub

4.2.9 A dense stand of blackthorn *Prunus spinosa* is present to the centre of the southern field, with dense blackthorn also extending from the boundaries by 4-5m. This common and widespread habitat is of **site value.**

Bramble Scrub

4.2.10 Areas of bramble scrub extend from the margins of the field parcels, particularly within the southern field. This common and widespread habitat is of **site value.**

Line of Trees

4.2.11 Areas of the western boundary, and boundary which separates the southern-most field from the main body of the site are comprised of mature oak *Quercus robur*, ash *Fraxinus excelsior* and white willow *Salix alba.* This feature is of **site / low local value.**

Priority Hedgerow with Trees

4.2.12 The central hedgerow which runs north to south across the site is formed of abundant blackthorn and bramble with frequent elder *Sambucus nigra*. The shrub layer appears unmaintained and reaches a height of c. 3-4m. Mature oaks emerge from the shrub layer at varying densities throughout the hedgerow. This priority habitat feature is of **low local value.**

Hedgerow (Priority)

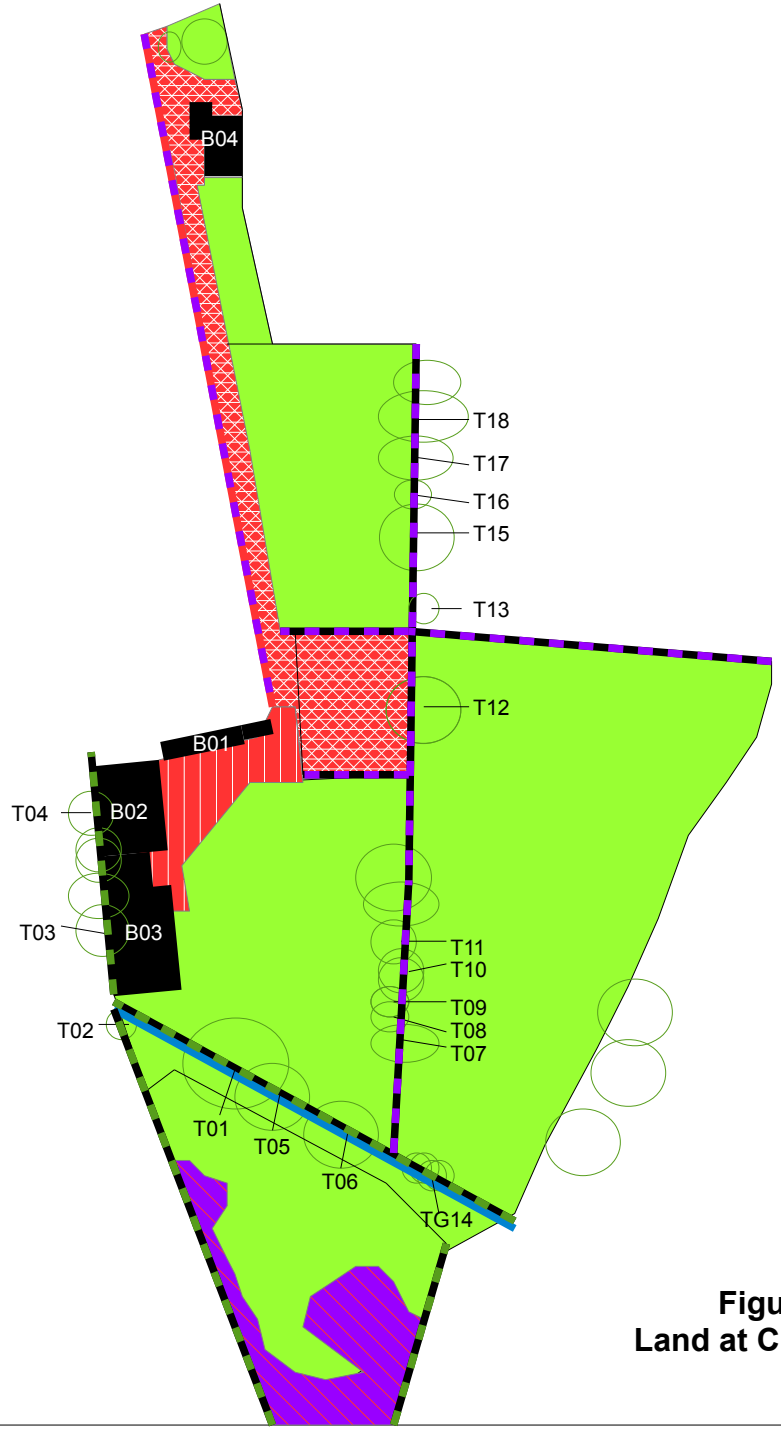
4.2.13 The northern hedgerow of the eastern field parcel, and the northern and southern hedgerows of the menage are formed of native hedgerows dominated by blackthorn with areas of willow and bramble. This linear feature is of **site value.**

Other Hedgerow

4.2.14 Large areas of the western boundary are formed of Leyland cypress *Cupressus x leylandii* hedging which has been allowed to reach a height of c. 6-8m. This non-native hedgerow is of **negligible value.**

Other Rivers and Streams

4.2.15 A shall ditch runs alongside the public footpath to the southern section of the site. The ditch held c. 10-15cm of water at the time of the survey with a slow flow rate. Banks were relatively shallow and vegetated with hemlock water dropwort and common nettle. This stream continues to flow west and is therefore of **local value.**



Key:

- = Sealed Surface
- = Scrub
- = Line of Trees
- = Stream
- = Modified Grassland
- = Unsealed Surface
- = Building
- T01 = Tree with Bat Roost Suitability
- = Other Hedgerow
- = Hedgerow (Priority)
- = Fence

N

20m

Figure No. 01 – Site Habitat Plan
Land at Chesapeke and Meadow View

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4.3 Protected Species Assessment

Amphibians

Desk Study

4.3.1 26no. records of great crested newt *Triturus cristatus* exist within 2.0km of the site, as well as records of common toad *Bufo bufo*, smooth newt *Lissotriton vulgaris*, common frog *Rana temporaria* and palmate newt *Lissotriton helveticus.* The closest GCN record is located 575m north of the site, recorded in 2013.

4.3.2 There are a total of 14no. ponds within 500m of the site. 2no. of these are located within 250m of the proposed development, the nearest being 140m north.

4.3.3 Extensive survey work in association with a near-by development was undertaken by ACD Environmental in 2012, with further eDNA surveys completed in 2018 and 2022. Of the 5no. ponds surveyed (2no. subject to eDNA survey), none were found to support great crested newts.

Site Assessment

4.3.4 The grassland, tall ruderal and hedgerows within the site provide suitable terrestrial habitat for GCN and common toad, with adjacent land to the south and west also considered suitable.

4.3.5 The presence of GCN has been ruled out from many of the ponds to the north of the site via previous survey effort, however the population status of some ponds within a commutable distance of the site remains unknown. Should GCN breeding ponds be present in the vicinity, then there is a low / moderate risk that hey may be present on site.

Reptiles

Desk Study

4.3.6 SxBRC returned 45no. records of slow worm, 19no. records of grass snake, and 9no. records of common lizard within 2.0km of the site.

Site Assessment

4.3.7 Rank grassland, tall ruderal and scrub found within the site provide optimal habitat for common, widespread reptile species such as slow worm and grass snake. The habitat on site offers high suitability for reptiles.

Bats

Desk Study

4.3.8 Common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, long-eared bat *Plecotus* sp., noctule *Nyctalus noctula,* serotine *Eptesicus serotinus*, Brandts *Myotis brandtii* / whiskered *Myotis mystacinus*, Natterer's *Myotis nattereri*, Daubenton's *Myotis daubentonii*, Bechstein's *Myotis bechstenii* and barbastelle *Barbastella barbastellus* bats have been recorded within 2.0km of the site area.

Preliminary Roost Assessment

4.3.9 The existing buildings on site were assessed for their potential to support roosting bats, a summary of the assessment is shown below:

Table No. 03 – Building Assessment

Ref.	*Description*	*Category*
B01	*Single storey dilapidated stable block of brick and ply construction with a corrugated roof. Building is light and draughty internally. No evidence of bats recorded.*	*Negligible*
B02	*Steel frame barn clad in corrugated metal previously used as an indoor riding school. Skylights throughout. No suitable crevices noted and no evidence of bats.*	*Negligible*
B03	*Barn of identical constriction to B02, used as stabling. Skylights throughout. No suitable crevices noted and no evidence of bats.*	*Negligible*
B04	*Dormer bungalow of brick construction with plain tile roof. Hanging tile present to dormer cheeks. Wooden soffit boxes with small gap recorded between the southern gable wall and soffit box, as well as small gap to western dormer window. Roof in good condition with no potential access points noted. No accessible loft void. No direct evidence of bats recorded.*	*Low*

4.3.10 Various trees were identified on site as offering some level of bat roost suitability.

Table no. 04 – Trees with potential roost features

Ref.	Description	Category
T01	*Mature oak tree with light ivy covering. Major deadwood to the centre of the crown and southern aspect, as well as numerous knot holes and shedding collars. Large tear-out to the south at 2-3m high.*	*High*
T02	*Mature oak which is largely dead. Numerous cracks and splits present with lofted bark plates.*	*Moderate*
T03	*Mature ash with major dead limbs and bracket fungus. Woodpecker holes and cavities throughout.*	*High*
T04	*Mature oak tree with heavy ivy covering.*	*Low*
T05	*White willow with large rot cavity to the base and cavities at unions which likely extend upwards through the limb.*	*Moderate*
T06	*White willow with major cavity to base, hazard beam at 2.5m north, woodpecker hole at 4m height on western leader and large tear-out with hazard beam to upper crown.*	*High*
T07	*Oak with moderate coverage of ivy*	*Low*
T08	*Oak with shedding collar and deadwood at 4m high to western aspect as well as a tear-out to the west at 6m height.*	*Moderate*
T09	*Semi-mature oak with small knot holes to the north-west at 6m height.*	*Low / Moderate*
T10	*Mature oak with major deadwood throughout, plus knot holes and cavities.*	*Moderate / High*
T11	*Standing deadwood with cracks and splits.*	*Moderate*
T12	*Mature oak with moderate deadwood to the south at 3-6m height.*	*Low*
T13	*Standing deadwood with cracks and splits.*	*Moderate*
TG14	*Group of 4no. semi-mature oak trees with deadwood, shedding collars and lifted bark.*	*Moderate*
T15	*Oak with shedding collar and deadwood to the western aspect.*	*Low / Moderate*
T16	*Oak with major deadwood to centre of crown and cracks and splits throughout.*	*Moderate*
T17	*Oak with moderate deadwood and knot hole to west at 4m height.*	*Low / Moderate*
T18	*Oak with moderate deadwood to the upper crown and occluding wound with deadwood to the western aspect at 3-4m height.*	*Moderate*

Foraging suitability

4.3.11 The hedge, treelines and scrub within the site are considered likely to support foraging and commuting by numerous bat species. This habitat is considered to be of **moderate suitability** for a range of species.

Dormouse

Desk Study

4.3.12 SxBRC returned no records of dormice within 2.0km of the site.

Site Assessment

4.3.13 The mature hedgerows around the site contain suitable food plants such as bramble, oak and hawthorn, while mature trees and bramble scrub provide suitable cover for hibernation. Although habitat on site is suitable, the overall value is reduced due to the reported absence of dormice in the locality of the site and the fragmentation and isolation of the on-site hedgerows from other areas of suitable habitat in the local area by fences and driveways. The habitat on site is therefore considered to be of **negligible value** to dormice.

Badger

Desk Study

4.3.14 Badger records are confidential and were therefore not included within the data search.

Site Assessment

4.3.15 Badger prints, in addition to fox and deer, were recorded in a muddy area within hardstanding to the western section of the site. Numerous mammal excavations were also recorded within both the menage and indoor school, with holes extending under the walls of the indoor school. Various mammal tracks were also recorded crossing the fields. The evidence on site suggests the site is potentially of some value to badgers.

Water Vole

Desk Study

4.3.16 SxBRC returned 3 no. records of water vole within 2.0km of the site, the nearest located 1.4km north-west.

Site Assessment

4.3.17 The ditch on site is shallow and has poorly vegetated banks. A walkover of the length of ditch within and immediately adjacent to the site found no evidence of water vole such as burrows. Given the sub-optimal habitat suitability of the ditch, the site is of **negligible value** to water vole.

Other Mammals

4.3.18 Numerous records of common mammals including rabbit exist within 2.0km of the site area. Fox and deer prints were recorded on site, with fox hair also noted caught on an area of fencing.

Birds

Desk Study

4.3.19 Records of numerous bird species have been returned within 2.0km of the site, including 16 no. Schedule I species and 28 no. species listed on the BoCC Red List.

Site Assessment

4.3.20 Optimal nesting and foraging habitat is limited to the surrounding hedges and tree lines. An area of nest debris was also noted to the southern gable of B02. The grassland is considered to be lacking in structure suitable for supporting ground nesting birds, and its value is further reduced by the frequent disturbance which would have occurred when the area was formerly grazed by horses. The area overall is likely to be of **site** / **low local value** to breeding / foraging birds.

Invertebrates

Desk Study

4.3.21 The data search returned records of numerous notable species of invertebrates within 2.0km of the site including brown hairstreak, small blue, small heath and purple emperor butterflies and stag beetle.

Site Assessment

4.3.22 Suitable habitat for invertebrates is limited to the hedgerows and woodland which border the site. The grassland is homogenous in structure and lacks the floral diversity to support a good range of invertebrates and is therefore likely to be of value within the **site area only**.

Others

4.3.23 No suitable habitat for any other protected species was recorded on site.

5.0 EVALUATION AND RECOMMENDATIONS

5.0.1 The following section evaluates the value of the habitats within and adjacent to the site, assessed where further survey is requires and details any avoidance and mitigation measures. Wherever possible potential adverse effects should be avoided by avoidance / mitigation embedded in scheme design, as this gives increased certainty over successful delivery and ensures adhesion to the 'Mitigation Hierarchy' (BSI, 2013) (CIEEM, 2018).

5.1 Designated Sites

5.1.1 The site is not located within the predicted zone of influence of any SAC's or SPA's. The site is located within the *Impact Risk Zone* of *Wolstonbury Hill SSSI*, however the development proposals do not meet the criteria which would require consultation with Natural England regarding potential impacts upon this designated site.

5.1.2 The proposals shall not impact any surrounding non-statutory designated site due to the intervening distances.

5.2 Habitats

5.2.1 The main body of the site is dominated by modified grassland fields with areas of tall ruderal species; the plant species on site were common and widespread species with no rare or unusual species recorded.

5.2.2 Mature trees and dense hedgerows which surround the site have been identified as being of higher value and should be retained and protected within the scheme proposals. Where removal is necessary, compensatory tree and hedgerow planting should be provided within the scheme, of at least an equivalent length and value to that which is being lost.

5.3 Protected Species

Amphibians

5.3.1 As the site contains suitable terrestrial habitat, the ponds surrounding the site which have not been subject to recent survey should be subject to an initial HSI assessment to ascertain their likely value to great crested newts and other amphibians. Where ponds are assessed as suitable, an eDNA survey should be completed between 15th April and 30th June to confirm the continued absence of GCN in the local area.

Reptiles

5.3.2 Areas of suitable reptile habitat exist within the site, much of which is likely to require removal to facilitate the development. A reptile survey should therefore be completed between March – September to allow the presence / likely absence of reptiles to be assessed.

5.3.3 Should reptiles be found to be present, this information shall be used to formulate a suitable mitigation strategy to ensure the protection of this species.

Bats

5.3.4 B04 has been assessed as offering 'low' bat roost suitability and shall require 1no. dawn or dusk survey completed between May and August to rule out the potential presence of a bat roost within the building. Should any evidence of a bat roost be found, further surveys shall be required to allow roost categorisation. All other buildings have been assessed as offering 'negligible' bat roost suitability and therefore no further survey of these buildings is required.

5.3.5 Trees which have been identified as offering 'moderate' or 'high' bat roost suitability will require further survey work should they be scheduled for removal; major tree surgery works or disturbance through excessive noise and vibration. Any trees which offer 'low' bat roost suitability shall require soft felling under ecological supervision should they be recommended for removal or major tree surgery works.

5.3.6 A sensitive lighting scheme must be employed with excessive light spill upon the surrounding trees, hedges and treelines avoided. All external lighting should comply with ILP Guidance Note 08/18 – Bats and Artificial Lighting in the UK to allow the continued ecological functionality of boundary features.

Dormice

5.3.7 Hedgerows on site provide optimal habitat for dormice, however the lack of local records within the vicinity of the site may preclude their presence. As a precautionary measure, a nut and nest check of hedgerows to be removed should be completed prior to works beginning. In the unlikely event that any evidence of dormouse be found, full surveys shall be completed, and a mitigation licence applied for from Natural England.

Badgers

5.3.8 The holes noted on site are likely to be attributed to foxes, however, to confirm with absolute certainty that badgers are not using the mammal holes within B02, a period of sett monitoring should be undertaken. The holes will require monitoring for a period of 21 days to confirm absence of badgers in this area. Sett monitoring surveys can be undertaken at any time of the year.

Other Mammals

5.3.9 All wild mammals are protected against intentional crushing or asphyxiation under the Wild Mammals (Protection) Act 1996. Care should be taken when excavating around any rabbit holes etc to ensure no wild mammal is intentionally harmed.

Breeding Birds

5.3.10 Removal of suitable nesting habitat (*trees/dense scrub and / or B02*) should be undertaken outside the nesting season (*avoiding March-August*) or following inspection by a suitability qualified ecologist to ensure no active nests are present. Compensation for the loss of nest sites should be provided within the scheme in the form of bird boxes and new tree, hedge and scrub planting.

Invertebrates

5.3.11 All hedging and mature trees should be retained where possible. Proposals do not affect habitat of any value to invertebrates; no constraints have been identified.

Summary of Survey Recommendations / Avoidance Measures

5.3.12 A summary of recommendations is as follows:

- Undertake a HSI assessment and potential eDNA survey of ponds within 500m from mid-April 2023;
- Undertake a full reptile survey on site to ascertain the presence or likely absence of this species group, to begin between mid-March and September 2023.
- Monitor mammal holes within B02 to rule out the presence of a badger sett. Sett monitoring can be completed all year.
- Retain all trees identified as offering Bat Roost Suitability with a suitable buffer to avoid disturbance, or survey between May and August;
- Complete 1no. dawn or dusk bat survey of B04 to rule out the presence of a bat roost within this building;
- Retain all surrounding mature trees / hedges where possible;
- Employ a sensitive lighting scheme across the site with all light spill onto trees and hedges avoided. Lighting should be designed in accordance with ILP Guidance Note 08/18.
- Remove any areas of hedging, trees, scrub or B02 outside the bird nesting season (Nesting season: March – July inclusive) or following inspection to ensure no active nests are present.

6.0 ECOLOGICAL ENHANCEMENTS / OPPORTUNITIES

6.1 The design of the proposed development must include ecological enhancements for the benefit of wildlife to ensure compliance with *Local Planning Policy* and the emerging *Environment Act 2021* which mandates a minimum 10% net gain in biodiversity across all development sites. Recommendations for ecological enhancements that should be considered as part of development proposals include:

- The use of flowering plants with a recognised wildlife value such as those listed within the RHS 'Plants for Pollinators' plant list to year-round interest for invertebrates;
- The provision of nesting boxes for a variety of bird species within trees. Integrated bird boxes should also be included within new buildings, with a particular focus on BoCC red-listed species such as swift and house sparrow.
- Plant new native species-rich hedging to the eastern boundary and within the site. Species should include a minimum 5 woody species such as hazel, blackthorn, crab apple, dogwood, oak, spindle, and guelder rose;
- Creation of habitat corridor areas along the boundaries of the site to provide a commuting corridor for bats and terrestrial mammals. This area should be planted with scattered native shrubs with wildflower grassland;
- The use of log and compost piles in habitat creation areas to provide refugia for reptiles and amphibians;
- Bat boxes suitable for a range of species to be incorporated into the southern aspect of mature trees and integrated into new buildings;
- Installation of invertebrate boxes in both sunny and sheltered locations to cater for a range of species.
- Creation of new ponds within habitat areas. The ponds should have extensive areas of shallow water which are favoured by invertebrates.
- Green walls / roofs used where possible within the development.

7.0 CONCLUSIONS

7.1 The proposals are unlikely to adversely impact any surrounding statutory or non-statutory designated site.

7.2 The main body of the site is formed of modified grassland with limited species diversity. This habitat is of limited ecological value, however suitable compensation for its loss must be provided to ensure the scheme achieves the required Biodiversity Net Gain. A full BNG calculation using DEFRA Metric 3.1 has been undertaken which demonstrates that a 10% net gain is achievable on site with the proposed number of units.

7.3 The site provides suitable habitat for amphibians, reptiles, bats, badgers and breeding birds. Further ecological surveys and impact assessment are required prior to submitting a planning application, to rule out the presence of these species on site, and allow formulation of a suitable mitigation strategy where required. Despite the site offering some suitable habitat for protected species, there was no evidence recorded on site which would suggest the presence of any major ecological constraints which could not be adequately mitigated for within the proposed scheme.

8.0 REFERENCES

BCT & ILP. (2018). Guidance Note 08/18. Bats and artificial lighting in the UK. Bats and the Built Environment series

Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). The UK Habitat Classification User Manual Version 1.1 at http://www.ukhab.org/

CIEEM. (2017). Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM. (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management. Winchester, UK

Collins J (ed): Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd ed.) The Bat Conservation Trust (2016);

Joint Nature Conservation Council (JNCC). (2010): Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit.

Ministry of Housing, Communities & Local Government. (2021). National Planning Policy Framework. Fry Building, 2 Marsham Street, London. This publication is available [online] at www.gov.uk/government/publications

Multi-Agency Geographic Information for the Countryside (MAGIC). (2013). Interactive Map. [online]. Available at http://www.magic.gov.uk/Magicmap.aspx

Mitchell-Jones and McLeish: Bat Workers Manual; JNCC, 3rd Edition (2004).

Rose, F., (2006). The Wild Flower Key. How to Identify wild flowers, trees and shrubs in Britain and Ireland. Revised and updated by Clare O'Reilly. ISBN: 978-0-7232-5175-0

Streeter, D.: The Most Complete Guide to the Flowers of Britain and Ireland; Harper Collins, London (2010).

Table No. 05 – Species List for Habitat Parcels

Modified Grassland

Common Name	***Scientific Name***	***DAFOR***
Birdsfoot Trefoil	*Lotus corniculatus*	***R***
Broadleaf Plantain	*Plantago major*	***O***
Chickweed	*Stellaria media*	***O***
Clover	*Trifolium repens*	***O***
Cocks-foot	*Dactylis glomerata*	***LD***
Creeping Buttercup	*Ranunculus repens*	***A***
Creepnig Bent	*Agrostis stolonifera*	***F***
Curled Dock	*Rumex crispus*	***F***
Dandelion	*Taraxacum officinale*	***O***
Dovesfoot Cranesbill	*Geranium mole*	***R***
False Oat	*Arrhenatherum elatius*	***LA***
Fleabane	*Pulicaria dysenterica*	***LA***
Ground Ivy	*Glechoma hederacea*	***LA***
Herb Robert	*Geranium robertanium*	***LA***
Meadow Fescue	*Festuca pratensis*	***R***
Nettle	*Urtica dioica*	***LD***
Perennial Rye-Grass	*Lolium perenne*	***D***
Ragwort	*Senecio jacobea*	***O***
Red Fescue	*Festuca rubra*	***LA***
Soft Rush	*Juncus effuses*	***LA***
Thistle	*Circium sp.*	***LA***
Timothy	*Phleum pratense*	***R***
Vetch	*Vicias sp.*	***R***
Yorkshire Fog	*Holcus lanatus*	***D***

Seasonally Wet Modified Grassland with Ruderal / Ephemeral

Common Name	***Scientific Name***	***DAFOR***
Cocks-foot	*Dactylis glomerata*	***D***
Common Fleabane	*Pulicaria dysenterica*	***LA***
Creeping Bent	*Agrostis stolonifera*	***F***
Creeping Buttercup	*Ranunculus repens*	***LD***
Creeping Cinquefoil	*Potentilla reptans*	***F***
Dandelion	*Taraxacum officinale*	***O***
Dock	*Rumex sp.*	***F***
False Oat	*Arrhenatherum elatius*	***LD***
Hemlock Waterdropwort	*Oenanthe crocata*	***LD***
Hogweed	*Heracleum sphondylium*	***O***
Lesser Stichwort	*Stellaria graminea*	***R***
Nettle	*Urtica dioica*	***LD***
Red Fescue	*Festuca rubra*	***O***
Rush	*Juncus sp.*	***LA***

Thistle	*Circium sp.*	***O***
Vetch	*Vicia sativa*	***O***
Water Mint	*Mentha aquatica*	***LA***
Yorkshire Fog	*Holcus lanatus*	***LD***

Line of Trees

Common Name	***Scientific Name***	***DAFOR***
Ash	*Fraxinus excelsior*	***R***
Elder	*Sambucus nigra*	***O***
Hazel	*Corylus avellane*	***R***
Oak	*Quercus robur*	***D***
White Willow	*Populus alba*	***F***

Priority Hedgerow with Trees

Common Name	***Scientific Name***	***DAFOR***
Oak	*Quercus robur*	***D***
Bramble	*Rubus fruticosus*	***F***
Field Maple	*Acer campestre*	***R***
Elder	*Sambucas nigra*	***F***
Blackthorn	*Prunus spinosa*	***A***
Ivy	*Hera helix*	***F***
Dog Rose	*Rosa canina*	***R***
Willow	*Salix sp.*	***O***

Hedgerow (Priority)

Common Name	***Scientific Name***	***DAFOR***
Blackthorn	*Prunus spinosa*	***A***
Bramble	*Rubus fruticosus*	***O***
Oak	*Quercus robur*	***R***
Willow	*Salix sp.*	***D***

Other Hedgerow

Common Name	***Scientific Name***	***DAFOR***
Leyland Cypress	*Cupressus x leylandii*	***D***

D – Dominant; A – Abundant; F – Frequent; O – Occasional; R – Rare; L – Locally

Appendix A – Site Photographs

Image 01 – Northern aspect of B04, assessed as offering 'low' bat roost suitability.

Image 02 – Hardstanding with Building B01 shown to the left of frame.

Image 03 – Building B02 and B03, assessed as offering 'negligible' bat roost suitability.

Image 04 – View south from the north-most section of the site.

Image 05 – View across the western field parcel looking north.

Image 06 – View across the eastern field parcel looking north.

Image 07 – View of the southern field parcel, which is proposed for enhancement to achieve required levels of Biodiversity Net Gain.

Image 08 – Watercourse which flows between the main body of the site and southern field parcel.

Image 09 – Example of mammal holes found within building B02.

Image 10 – Example of trees which offer 'high' bat roost suitability.

Appendix B – Summary SxBRC Data

Ecological Data Search SxBRC/22/714 - Summary Report

An ecological data search was carried out for land at Chesapeke and Meadow View, Sayers Common on behalf of Catherine O'Reilly (Lizard Landscape Design & Ecology) on 13/12/2022.

The following datasets were consulted for this report:

	Requested	Radius/buffer size
Designated sites, habitats & ownership maps	No	
Protected, designated and invasive species	Yes	2km

Summary of results

Sites and habitats

Statutory sites	Not requested
Non-statutory sites	Not requested
Section 41 habitats	Not requested
Ancient and/or ghyll woodland	Not requested

Protected and designated species

International designations	29 species	224 records
National designations	89 species	1,575 records
Other designations	170 species	2,474 records
Total	**186 species**	**2,731 records**
Invasive non-native	26 species	141 records

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

This summary page may be published.
The full report and maps may not be published or otherwise shared.

The data search report is valid until 13/12/2023 for the site named above.