

BIRDBUSH, LUDWELL, DORSET, SP7 9HH.

Preliminary Ecological Appraisal Report

June 2025



Report Control Sheet

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EXECUTIVE SUMMARY

Site Address	Birdbush, Ludwell, Dorset, SP7 9HH.
Grid Reference	ST91402306
Approximate Site Area	0.111ha.
Current Site Use	The site comprises of an area of modified grassland lawn with interspersed trees; it forms part of the entrance driveway of an adjoining static home park and other residential properties.
Designated Sites within Zone of Influence	The site falls within the zone of influence of the Lower Coombe and Ferne Brook Meadow SSSI located 500m to the northwest. As the development will add minimal additional light pollution into the surrounding habitat and given that the designation of the SSSI is predominantly for floral diversity, it is suggested that there will be minimal effect. It is expected that there will be no considerable increase in the number of people and vehicle traffic using the site as it will become a residential property and due to the nature of the development no foreseeable impact upon the designated habitats and the surrounding site conditions is expected. Consideration will need to be given to the potential for contamination and pollution of the surrounding environments given the sites distance from the River Nadder headwaters, especially during the construction phase.
Notable Habitat Features	Notable habitats are present surrounding the boundary of the site in the form of priority habitat semi ancient natural woodland, however, none of these designations are located within the red line boundary of the site itself.
Notable Species Applicable to the Assessment	• Bats (Potential roosting, foraging and commuting). • Breeding birds. • Reptiles. • Amphibians. • Badger. • Hedgehog.
Mitigation Recommendations	• Lighting and mitigation for bats. • Nesting bird checks prior to any removal of existing vegetation or trees.
Recommended Further Surveys and Assessment	No further surveys are deemed necessary to inform the proposed planning application.
Recommended Ecological Enhancements	• Provision of bat and bird boxes on any new structures and surrounding trees to increase roosting opportunities. • Planting of scrub and soft landscaping to facilitate invertebrates, birds and mammals, through the provision of soft linear features such as hedgerows and green buffer zone over solid man-made structures, these will add habitat to the site and offer foraging and shelter for a wide variety of flora and fauna.

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1 INTRODUCTION

1.1. SCOPE & PURPOSE

- 1.1.1 Collington Winter Environmental Ltd was commissioned by The Going Group to undertake a Preliminary Ecological Appraisal (PEA) at Birdbush, Ludwell, Dorset, SP7 9HH. This report has been prepared to inform a planning application to construct a new detached residential property on the site.
- 1.1.2 The author of this report is Jon Hayter Senior Ecologist at Collington Winter Environmental Ltd. Jon is highly experienced managing schemes and has produced many ecological reports to inform planning applications.

1.2. LOCATION

- 1.3.1 Please refer to Figure 1.1 below for the site location.
- 1.3.2 The site is located on the eastern outskirts of the small village of Ludwell, 5km northeast of the town of Shaftesbury in Dorset. It occupies an elevated position within a predominantly arable and pastoral but inherently rural location.
- 1.3.3 The A30 runs southwest to northeast along the southeastern boundary of the site and the village extends south-westwards along the road for some 500m north and south of the site.

Figure 1.1- Site Location

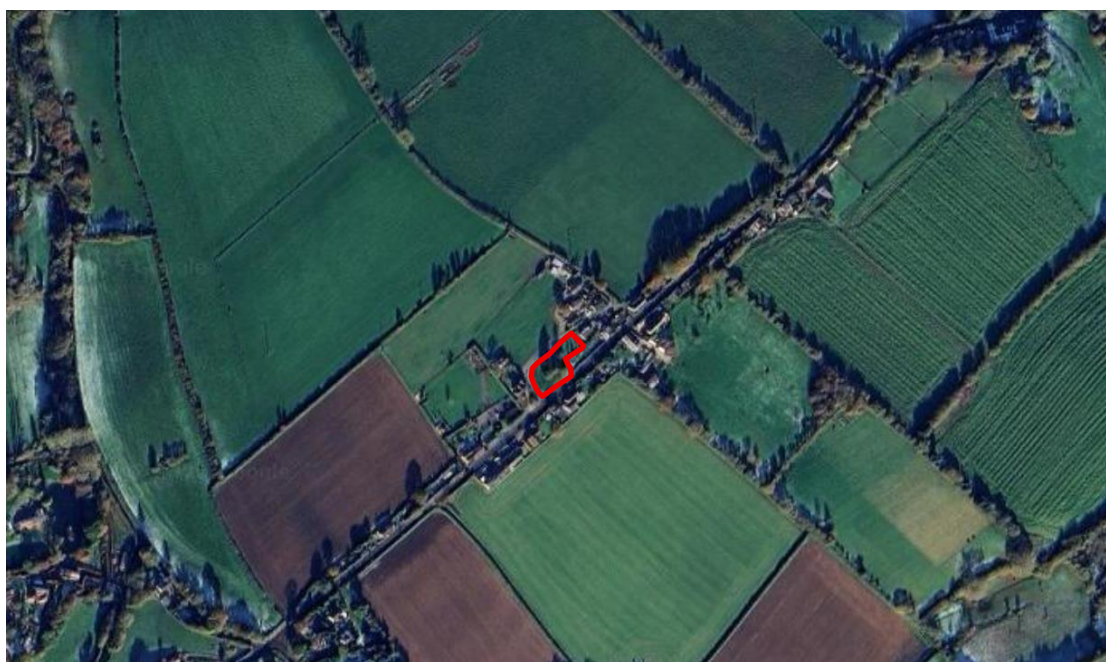


Figure 1.2- Site boundary plan.



1.3. OBJECTIVES

1.3.1 The objectives of the Preliminary Ecological Appraisal are as follows:

- Identify the major habitats present.
- Ascertain the presence or potential presence of any legally protected or notable species or habitats
- Identify any mitigation or further survey required and opportunities for strategic wildlife enhancements and long-term management.

2 METHODOLOGY

2.1. DESK STUDY

- 2.1.1 An initial desk-based assessment of the site was undertaken to collate baseline data. The desk study included:
- Obtaining local records from WSBRC (Wiltshire and Swindon Biological Records Centre) of notable species and locally designated sites within 1 km of the site.
 - Review of Magic.gov.uk website for details of any designated sites, notable habitats and presence of European Protected Species Licences.
 - Review of aerial and OS maps for habitat information, as well as determining locations of potential waterbodies to be considered in the assessment.
 - Review of potential habitat links on and off site, to determine the potential zone of influence of the proposed development.
- 2.1.2 Please note, a lack of records for a species does not confirm absence. Instead, local surveys may not have been undertaken or records not submitted to WSBRC.

2.2. VEGETATION AND HABITAT ASSESSMENT

- 2.3.1 An Ecological Appraisal of the site was undertaken by Jon Hayter Senior Ecologist at Collington Winter Environmental Ltd on the 7th of May 2025. The weather was sunny (1/8 oktas), with no precipitation, wind speed 2mph and temperature 15°C.
- 2.3.2 The walkover survey was undertaken in line with standard UK HAB Methodology, Version 2 (2023). The assessment is undertaken with consideration of methodology as per “Preliminary Ecological Appraisal” (CIEEM, 2018).
- 2.3.3 A UK HAB Plan has been produced and is presented within this report. Standard methodology has been used, though adjustments have been made based on judgement to demonstrate habitats in a clearer manner, or where standard guidance does not fit the conditions found on site.

2.3. FAUNA ASSESSMENT

- 2.3.4 A search for signs of protected and notable species of fauna was undertaken during the site walkover. This included both field signs of species, as well as potential for species to be present based on habitat availability.
- 2.3.5 The searches broadly included the following:
- Assessment of waterbodies on site and within 250m of the site boundary along with terrestrial habitats for suitability to support notable amphibians.
 - Searches for field signs of, and habitat suitability for bats.
 - Suitability of habitats to support reptiles, hedgehogs and badgers comprising of searches for incidental field signs.
 - Assessment of the suitability of habitats to support notable birds and recording any field sightings of birds during the walkover.
 - Assessment of the sites ability to support notable invertebrates and Flora.
 - Searches for non-native invasive species of flora and fauna.

2.4. PRELIMINARY ROOST ASSESSMENT AND BAT ACTIVITY ASSESSMENT

- 2.4.1 A Preliminary Bat Roost Assessment (PRA) and Ground Level Tree Assessment (GLTA) of the site was undertaken during the PEA assessment by Jon Hayter who holds a Class 2 Bat Survey Licence from Natural England (Reference CL18-2019-39842-CLS-CLS).
- 2.4.2 The survey was undertaken following guidance set out in Collins (2023). This includes undertaking a detailed internal and external inspection of any features to compile information on potential and actual bat entry/ exit points, roosting locations and evidence of bats.

- 2.4.3 The commuting and foraging assessment methodology is based on information contained within the Bat Conservation Trust guidelines 4th edition (Collins 2023).
- 2.4.4 The GLTA and Potential flightpaths and foraging habitats were assessed as per categories listed in Table 4.1, 4.2 and 6.2, demonstrated below (Collins 2023).
- 2.4.5 If negative impacts on bat activity is suspected, further surveys may be required. Negative impacts anticipated on bats flights paths and foraging habitats may include:
- Modification of light paths or foraging habitats either physically or through disturbance such as light spill/noise
 - Severance of flight paths (fragmentation)
 - Loss of Foraging habitats

Table 4.1. Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Potential suitability	Description	
	Roosting habitats in structures	Potential flight-paths and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible ^a	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^a and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats ^a).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^a and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure with one or more potential roost sites 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, conditions ^a and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

2.5. HABITAT SUITABILITY INDEX (GREAT CRESTED NEWT)

- 2.5.1 No ponds were located within the site boundary; and no ponds were identified within 250m of the site. As great crested newts' upper dispersal limit is generally considered to be up to 250m from a waterbody (though occurrence of greater distances does exist), ponds beyond this distance were not assessed due to their limited connectivity (English Nature, 2001).
- 2.5.2 Investigation of any offsite ornamental ponds within neighbouring residential properties was not possible, therefore they could not be fully considered, however, there were no records of EPSL licenses for GCN within 1km of the site following consultation with Magic.gov.uk.
- 2.5.3 The evidence collected from the data search; site walkover and desk study would suggest that the site is not suitable for GCN as no records exist for the species and the habitat is not suitable to support them.
- 2.5.4 The immediate proximity of the A30, on the eastern boundary of the site is considered a major barrier to the dispersal from any ponds beyond the road to the east of the site.

2.6. SURVEY LIMITATIONS

- 26.1 This survey does not constitute a full botanical survey. Key species for each habitat type have been identified to give a broad representation of habitats present within the site.
- 26.2 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the natural environment. This survey does not constitute a full botanical survey. Plant species may have been under-recorded, unidentifiable or not visible due to several factors including the time of year the survey was carried out or recent grass cutting and clearance work.
- 26.3 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on the site. This is based on the suitability of the habitat, known distribution of the species in the local area (provided by data searches) and any direct evidence within the survey area.
- 26.4 The findings of this report represent the professional opinion of qualified ecologists and do not constitute professional legal advice. The client may wish to seek professional legal interpretation of the relevant wildlife legislation cited within this document.
- 26.5 Given the disturbance observed on site it is possible that features and field signs are now not evident where otherwise they would have been, consideration has been given to this throughout the report and a precautionary approach has been adopted to ensure adequate consideration.

2.7. PROPORTIONALITY

- 27.1 Collington Winter Environmental Ltd provide recommendations in line with the British Standard for Biodiversity (BS42020). Within BS42020, proportionality is encouraged for both ecologists and Local Authority Decision Makers. Please refer to the below extract from Section 5.5 of BS42020.

“The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.”

NOTE 1 This approach is entwined in Government planning guidance, for example, paragraph 193 of the National Planning Policy Framework for England [41].

NOTE 2 The desk studies and field surveys undertaken to provide a preliminary ecological appraisal (PEA) might in some cases be all that is necessary.”

3 SURVEY RESULTS

3.1. SITE CONTEXT

- 3.1.1 The site comprises of a heavily managed area of modified grassland, interspersed with a mixed age range of native and nonnative trees. The main bulk of the site consists of modified grassland which was in use as a residential garden with a uniform award length of less than 50mm.
- 3.1.2 The perimeter of the site is mostly sealed surface with the boundary to the south and west being an access road to the static home park to the north. The eastern boundary is formed by the A30 major road. There is a well-managed native hedgerow at the northern boundary extending around the eastern boundary of the site where it meets the A30. This hedgerow is not within the ownership of the site.
- 3.1.3 There are approximately eleven trees within the site, a mix of native and non-native specimens both immature and mature in age range, these have all been planted and are considered ornamental rather than natural in origin.
- 3.1.4 The surrounding wider area is dominated by arable and pastoral land use; this extends to mature hedgerows and woodland blocks and the headwaters of the River Nadder which rises 600 to the north and flows westwards away from the site.
- 3.1.5 To the south is located the village of Ludwell with its urban gardens and greenspaces and to the north the small villages of Donhead St Mary and Donhead St Andrew all within 1km radius.
- 3.1.6 Overall, the site is predominantly rural with good habitat connectivity via scrub, unmanaged hedgerows, blocks of deciduous broadleaved woodland with mature trees and linear features connecting the surrounding mosaic of habitats.

3.2. DESIGNATED SITES

- 3.2.1. The site is located within the Cranborne chase and west Wiltshire downs national landscape and within a registered dark sky reserve.
- 3.2.2. There are eight designated sites within a 5km radius of the site as detailed in Table 3.1 below.

Table 3.1 Designated Sites

Site Name	Distance from site (km)	Direction	Designation	Citation
Lower Coombe and Ferne Brook Meadows SSSI	500m	Northwest	SSSI	Lower Coombe and Ferne Brook Meadows support nationally important examples of rare fen meadow and species rich neutral grassland communities. The former consists of two types. The blunt-flowered rush - marsh thistle community and the sharp-flowered rush - common marsh bedstraw community. The species rich neutral grassland communities comprise a dry type characterized by crested-dog's tail and common knapweed, and a damp community with crested dogs-tail and marsh marigold.
Win Green Down SSSI	2.1km	Southeast	SSSI	Win Green Down is an area of highly diverse chalk grassland with a rich flora including species of a nationally restricted distribution. The site extends for 2 km along a predominantly north facing escarpment, which spans moderate to steep slopes of the Lower, Middle and Upper Chalk. Lying close to the Dorset border, it is one of the most southerly chalk grasslands in Wiltshire. This type of habitat has been substantially reduced in Britain due to changes in agricultural practice.

Gutch Common SSSI	2.5km	Northwest	SSSI	This site is a mosaic of inter-related habitats with wet and dry acidic woodlands, expansive areas of bracken with acidic flushes and a neutral meadow. It has a variety of slopes and aspects and is influenced by a complex of underlying geological strata; Upper Greensand, Gault Clay, calcareous sand and Kimmeridge Clay. These conditions occur rarely in Wiltshire and support habitats and species uncommon or rare in the county
Fontmell and Melbury Downs SSSI	2.8km	Southwest	SSSI SAC	This large site, comprising part of the edge of the chalk escarpment holds unimproved chalk grassland and scrub communities which are typical of northeast Dorset and have high botanical and entomological interest.
Gallows Hill SSSI	3.5km	West	SSSI	This site encompasses botanically diverse chalk grassland and scrub containing animal and plant species of a nationally restricted distribution. Species rich downland is a habitat that has been greatly diminished throughout the country due to recent changes in agricultural practice. The vegetation demonstrates the succession from grassland to scrub and incipient woodland.
Winklebury Hill SSSI	3.6km	West	SSSI	Winklebury Hill is an extensive and topographically varied area of herb rich chalk grassland supporting several plants and a butterfly of restricted British distribution. This habitat has become increasingly uncommon and fragmented with the intensification of modern agriculture and this site, covering over 50 ha., is one of the larger remaining examples.
Rotherley Downs SSSI	3.75km	Southwest	SSSI	Rotherley Downs is an area with diverse chalk grassland, scrub and woodland communities and supports several uncommon plants and invertebrates. Species rich chalk downland in Britain is a habitat which has declined by 80% since 1940, mainly through agricultural intensification and Wiltshire now contains the majority of that remaining.
Pincombe Down SSSI	4.95km	West	SSSI	Pincombe Down occupies an area of chalk grassland situated on the sides of a valley extending out from a north-east facing coombe. The turf is floristically diverse, supporting several uncommon plants including one of nationally restricted distribution. Unimproved downland is a habitat in national decline and this site is a botanically rich representative of the chalk of south-west Wiltshire.

Key:

NNR – National Nature Reserve.

SSSI – Site of Special Scientific Interest.

Ramsar – Wetlands of international importance designated under the Ramsar Convention.

SAC – Special Area of Conservation.

SPA – Special Protection Area.

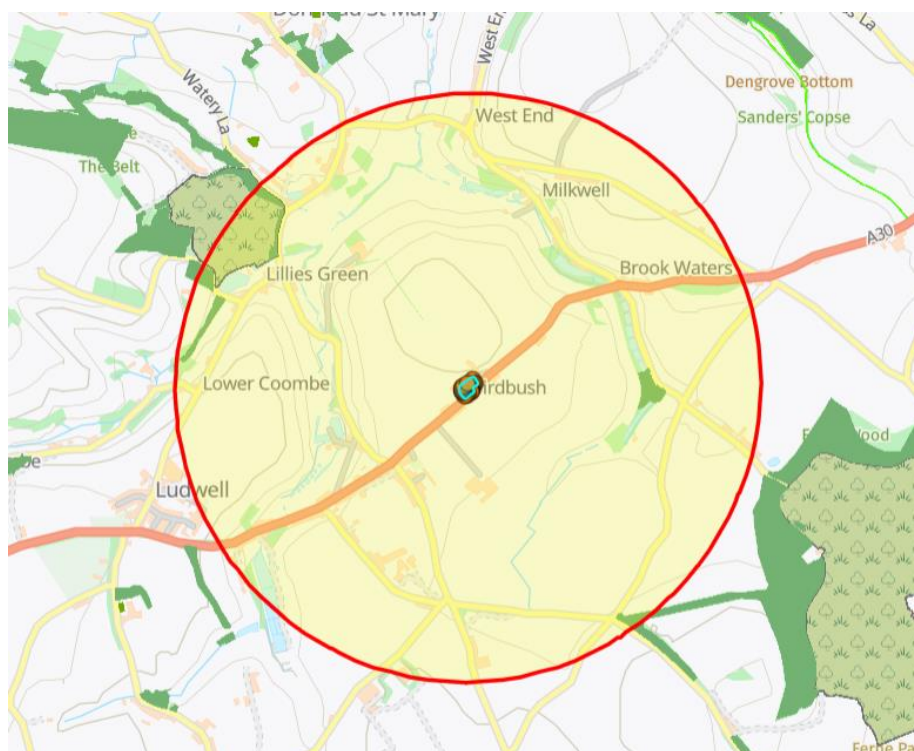
3.2.3. The data search returned only the Lower Coombe and Fern Brook Meadows SSSI, and the site falls within the zone of influence of this designated site.

3.3. PRIORITY HABITATS

3.4.1 There are three blocks of priority woodland within 1km of the site.

- The first block is deciduous woodland, located 580m east of site totalling 0.75ha.
- The second block is wood-pasture and parkland, located 810m northwest which is designated as BAP priority habitat.
- The third block is deciduous woodland, located 950m northwest totalling 0.25ha.

Figure 3.1- Priority sites highlighted by the red circle within 1km.



Legend

- Priority Habitat Inventory - Calaminarian Grassland (England) - Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England) - Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England) - Priority Habitat Inventory - Lowland Calcareous Grassland (England) - Priority Habitat Inventory - Lowland Dry Acid Grassland (England) - Priority Habitat Inventory - Lowland Meadows (England) - Priority Habitat Inventory - Purple Moor Grass and Rush Pasture (England) - Priority Habitat Inventory - Upland Calcareous Grassland (England) - Priority Habitat Inventory - Upland Hay Meadows (England) - Priority Habitat Inventory - Lowland Heathland (England) - Priority Habitat Inventory - Mountain Heaths and Willow Scrub (England)	- Priority Habitat Inventory - Upland Heathland (England) - Priority Habitat Inventory - Blanket Bog (England) - Priority Habitat Inventory - Lowland Fens (England) - Priority Habitat Inventory - Lowland Raised Bog (England) - Priority Habitat Inventory - Reedbeds (England) - Priority Habitat Inventory - Upland Flushes, Fens and Swamps (England)	- Priority Habitat Inventory - Upland Heathland (England) - Priority Habitat Inventory - Blanket Bog (England) - Priority Habitat Inventory - Lowland Fens (England) - Priority Habitat Inventory - Lowland Raised Bog (England) - Priority Habitat Inventory - Reedbeds (England) - Priority Habitat Inventory - Upland Flushes, Fens and Swamps (England)	- Assumed woodland - Broadleaved - Cloud \ shadow - Conifer - Coppice - Coppice with standards - Failed - Felled - Ground prep - Low density - Mixed mainly broadleaved - Mixed mainly conifer - Shrub - Uncertain	- Windthrow - Young trees - Priority Habitat Inventory - Traditional Orchards (England)
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3.4. HABITATS

Please refer to the Appendix for the UK HAB Map for the site showing referenced habitats. Photographs of the site are presented in the appendix.

MODIFIED GRASSLAND AND RESIDENTIAL GARDEN g4

- 34.2 The site is dominated by a large area of modified grassland, which is heavily managed and in use as an amenity lawn. It has no direct links to the wider site due to being completely encircled by an access track and major A road.
- 34.3 The area of modified grassland (MG1) totals totalling 0.111ha. Species observed include annual meadow grass (*Poa annua*), Yorkshire fog (*Holcus lanatus*), annual nettle (*Urtica dioica*), creeping buttercup (*Ranunculus repens*), dandelion (*Taraxacum officinale*), selfheal (*Prunella vulgaris*), square stalked willowherb

(*Epilobium tetragonum*), yarrow (*Achillea crithmifolia*), ground elder (*Aegopodium podagraria*), ribwort plantain (*Plantago lanceolata*), greater plantain (*Plantago major*), daisy (*Bellis perennis*), lambs tongue (*Plantago lanceolata*), field speedwell (*Veronica agrestis*), groundsel (*Senecio vulgaris*) and creeping bent (*Agrostis stolonifera*)

SCATTERED TREES 32

- 3.4.4 Eleven trees were present on site within the modified grassland and garden and alongside the eastern roadside boundaries of the site. They were a mix of native deciduous trees and one non-native ornamental species and are detailed below.
- 3.4.5 Tree 1 (T1) is a non-native Italian alder (*Alnus cordata*), located to the southern end of the site. It is well formed and balanced with an even crown. There is evidence of compaction around the root zone from mowing activities, however, it shows good vigour and structure with a partial lean of 5degrees to the east. It has a 600mm diameter at breast height (DBH) and stands 16m tall.
- 3.4.6 Tree 2 (T2) silver birch (*Betula pendulatum*) is located immediately east of T1. It is an immature tree with a 100mm DBH, with a single stem standing 6m tall with poor crown spread due to heavy shading from T1. It appears in good structural and physiological condition despite its unbalanced crown structure.
- 3.4.7 Tree 3 (T3) silver birch is located to the east of T1 and south of T2, it is an immature tree with a 200mm DBH, it is a single stem tree standing 8m tall with, a heavily biased crown spread to the east due to shading from T1. It appears in good structural condition with good vigour.
- 3.4.8 Tree 4 (T4) Is an ornamental weeping willow (*Salix babylonica*). It is located in the eastern corner of the site alongside the A30 and the boundary hedgerow. It is a mature tree with 3 co-dominant stems; it has evidence of historic pollarding at around 4m with good reactionary growth in the canopy. It is in good structural condition and has good vigour with a balanced crown due to the previous and continued management. The tree has a DBH of 500mm and is 7m tall.
- 3.4.9 Tree 5 (T5) silver birch is located south of T6 alongside the road, it is an immature tree with a DBH of 70mm and is 5m tall. No obvious defects and is open grown with good structure and vigour.
- 3.4.10 Tree 6 (T6) silver birch is located south of T4 next to the road; it is an early mature tree and has a DBH of 400mm and is 9m tall. It has good structure and shape with good vigour and no obvious defects.
- 3.4.11 Tree 7 (T7) silver birch is located to the south of T6, it is immature and has a DBH of 100mm and is 8m tall. It has good vigour and structure with no obvious defects.
- 3.4.12 Tree 8 (T8) silver birch is located to the northwest of T2, it is an immature tree with a 150mm DBH and is around 6m tall. It is in poor vigour due to being shaded by its cohort T8, the crown is heavily biased to the north, it is in good vigour and has poor structure.
- 3.4.13 Tree 9 (T9) silver birch is located to the east of T7, it is an immature and has a DBH of 200mm and is 8m tall. It has good vigour and structure with no obvious defects.
- 3.4.14 Tree 10 (T10) cherry (*Prunus avum*) it is a mature tree located next to T8, it has a 380mm DBH and is 5m tall. It is single stemmed with a wide-open grown crown slightly biased to the east due to shading. Vigour is good with no obvious structural defects.
- 3.4.15 Tree 11 (T11) silver birch it is located at the north end of the site, it has a DBH of 240mm and is 9m tall. It is in good vigour and structurally has no defects
- 3.4.16 None of the trees held any Potential for roosting bats, as no suitable features were observed or recorded during the site walkover which included a full GLTRA (Ground Level Tree Roost Assessment).

NON-NATIVE AND ORNAMENTAL HEDGEROW (OFFSITE)

- 3.4.17 There is one hedgerow present on the boundary of the site although it is understood that it is not within the ownership of the site. H1 is located on the northeastern boundary and runs along the boundary with the neighbouring residential properties to the east, it is heavily managed and is around 1.5m high, 600mm wide and 30m in length. It consisted of a mix of deciduous and evergreen species with both native and nonnative species observed.

3.5 SPECIES

FLORA

- 3.4.18 A total of 20 species were returned from the local data search dating back to 1990. The species recorded include Bluebell (*Hyacinthoides non-scripta*), Spotted Medick (*Medicago arabica*), Various-leaved Water-starwort (*Callitriche platycarpa*), Marsh Speedwell (*Veronica scutellata*), Tutsan (*Hypericum androsaemum*), Marsh Willowherb (*Epilobium palustre*), Meadow Brome (*Bromus commutatus*), Pale Sedge (*Carex pallescens*), Rat's-tail Fescue (*Vulpia myuros*), penny royal (*Mentha pulegium*), scotts pine (*Pinus sylvestris*), white helleborine (*Cephalanthera damasonium*), tubular water dropwort (*Oenanthe fistulosa*), ivy leaved bellflower (*Wahlenbergia hederacea*), marsh violet (*Viola palustris*), and Welsh Poppy (*Meconopsis cambrica*).
- 3.4.19 Several species of note were returned within the data search, but these were old historic records from over 40 years ago, so they can be reasonably discounted. These included white helleborine, bluebell and several species associated with the riparian habitat of the River Nadder and Lower coombe and Fern Meadows SSSI.
- 3.4.20 No species of note were observed during the survey, furthermore the continued heavily managed nature of the site is likely to lead to further degradation and restriction of floral species. It is confidently assessed that the site does not support any notable plant species, as the assemblage noted in the data search were heavily associated with woodland and riparian settings.

INVERTEBRATES

- 3.4.1 The data search returned a total of twenty seven records of invertebrates within the local area, This list includes a variety of moth and butterfly species such as Swallowtail (*Papilio machaon*), Grey Dagger (*Acronicta psi*), Knot Grass (*Acronicta rumicis*), Ear Moth (*Amphipoea oculatea*), Mouse Moth (*Amphipyra tragopoginis*), Brown-spot Pinion (*Anchoscelis litura*), Dusky Brocade (*Apamea remissa*), Garden Tiger (*Arctia caja*), Straw Belle (*Aspitates gilvaria gilvaria*), Centre-barred Sallow (*Atethmia centrugo*), Sallow (*Cirrhia icteritia*), Small Square-spot (*Diarsia rubi*), Small Phoenix (*Ecliptopera silaceata*), Ghost Moth (*Hepialus humuli*), Rosy Rustic (*Hydraecia micacea*), Shoulder-striped Wainscot (*Leucania comma*), Brindled Beauty (*Lycia hirtaria*), Lackey (*Malacosoma neustria*), Dot Moth (*Melanchra persicariae*), Powdered Quaker (*Orthosia gracilis*), White Ermine (*Spilosoma lubricipeda*), Buff Ermine (*Spilosoma lutea*), Hedge Rustic (*Tholera cespitis*), Feathered Gothic (*Tholera decimalis*), Blood-vein (*Timandra comae*), Cinnabar (*Tyria jacobaeae*), and Dark-barred Twin-spot Carpet (*Xanthorhoe ferrugata*).
- 3.4.2 The grassland is of low value to invertebrates, as minimal variation of native and ornamental floral species was observed during the site walkover and there are nominal resources for invertebrate species to complete their lifecycles present within the site.
- 3.4.3 Butterflies and moths require specific food plants predominantly within more neutral grassland, woodland, or riparian habitats in order to complete their life cycles, due to the absence of these habitats within the site it is confidently determined that there are no notable invertebrates on site. However, it is expected that other common invertebrates may utilise the surrounding site for foraging.

AMPHIBIANS

- 3.4.1 The data search recorded common toad and common frog, however both records are over 20 years old and considered historic.
- 3.4.2 The site offered minimal suitable habitat to provide resources and cover for common amphibians such as common toads (*Bufo bufo*) and common frogs (*Rana Temporaria*), overwintering and hibernation resources

were lacking due to the open nature of the site and short sward length. There were also no waterbodies on site, or within 250m of the site.

3.4.3 Consultation with Magic.gov.uk and the local records centre confirmed there were no registered EPSL licenses for great crested newts located within a 1km radius of the site. Therefore, the presence of great crested newts within the site is not anticipated due to no suitable habitat being present.

3.4.4 Common amphibians are not anticipated to be present on site due to no suitable habitat being present.

REPTILES

3.4.5 The data search returned two records of reptile species within the 1km radius search area which consisted of Slow-worm (*Anguis fragilis*) and Grass Snake (*Natrix helvetica*), with the most recent record being returned in 2001.

3.4.6 Common reptiles are not expected to be present on the site as no suitable habitat is available due to the very short sward length and regular management and mowing of the site.

BIRDS

3.4.7 A total of 91 records of birds were returned in the 1km data search. The species recorded include Red Kite (*Milvus milvus*), Mallard (*Anas platyrhynchos*), Swift (*Apus apus*), Black-headed Gull (*Chroicocephalus ridibundus*), Snipe (*Gallinago gallinago*), Herring Gull (*Larus argentatus*), Golden Plover (*Pluvialis apricaria*), Green Sandpiper (*Tringa ochropus*), Lapwing (*Vanellus vanellus*), Grey Heron (*Ardea cinerea*), Little Egret (*Egretta garzetta*), Stock Dove (*Columba oenas*), Woodpigeon (*Columba palumbus*), Collared Dove (*Streptopelia decaocto*), Kingfisher (*Alcedo atthis*), Cuckoo (*Cuculus canorus*), Kestrel (*Falco tinnunculus*), Moorhen (*Gallinula chloropus*), Meadow Pipit (*Anthus pratensis*), Greenfinch (*Chloris chloris*), Rook (*Corvus frugilegus*), Whitethroat (*Curruca communis*), Yellowhammer (*Emberiza citrinella*), Linnet (*Linaria cannabina*), Grey Wagtail (*Motacilla cinerea*), House Sparrow (*Passer domesticus*), Dunnock (*Prunella modularis*), Bullfinch (*Pyrrhula pyrrhula*), Starling (*Sturnus vulgaris*), Wren (*Troglodytes troglodytes*), Redwing (*Turdus iliacus*), Song Thrush (*Turdus philomelos*), Fieldfare (*Turdus pilaris*), Mistle Thrush (*Turdus viscivorus*), Tawny Owl (*Strix aluco*), and Barn Owl (*Tyto alba*).

3.4.8 The species assemblage of birds contains several species of note which are designated as Schedule 1 species, these being the barn owl, kingfisher, golden plover, redwing, fieldfare and red kite. Several other section 41 species were returned, these being the yellowhammer, house sparrow and cuckoo. The site is not conducive to providing roosting and nesting habitat for these species as the site is made up of modified grassland with open grown trees. The species listed above require a denser scrub and woodland setting with some specialising in riparian habitat.

3.4.9 Species recorded whilst undertaking the PEA consisted of carrion crow (*Corvus corone*), rook, robin (*Erithacus rubecula*), goldfinch (*Carduelis carduelis*), house sparrow and dunnock observed in the vicinity of the site foraging or commuting through the landscape.

3.4.10 Ground nesting birds are not anticipated to be on site, due to the dominance of a short, manicured sward and heavily managed garden setting, whereby disturbance is regularly expected.

3.4.11 The presence of mature trees within the site offers nesting opportunities. However, the opportunities are not considered to be of significant value due to being common within the local area, with greater valued habitats within the wider area.

BATS

3.4.12 There were no buildings within the site, however several mature trees were present which could hold value for roosting bats; therefore, every suitable tree was subject to a GLTRA.

- 3.4.13 Following a detailed inspection of all of the trees located within the boundary of the site, **NONE** had bat roost potential as each of the specimens lacked any cracks, holes and features suitable to provide roosting sites for bats. However, it is anticipated that the wider site and village has PRF features in abundance which would provide suitable opportunities for a wide variety of species.
- 3.4.14 A search using MAGIC.gov.uk produced the following results for granted EPSL licenses within 3km of the site (see Table 3.5.21 below) A total of six records of granted EPSL licenses for bats were returned, most of these records related to roosts licensed for destruction and disturbance of resting places.
- 3.4.15 The data search returned 33 records for roosts with 1km of the site, these related to a diverse mix of nine different species, consisting of noctule (*Nyctalus noctula*), serotine (*Epstesicus serotinus*), daubentons (*Myotis daubentonii*), whiskered (*Myotis mystacinus*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long eared (*Plecotus auritus*), greater horseshoe (*Rhinolophus ferrumequinum*) and lesser horseshoe *Rhinolophus hipposideros*).

Table 3.5.21 Granted EPSL licenses.

Case reference of granted application	Species on the licence*	Distance from site (KM)	Direction from Site	Licence Start Date	Licence End Date	Does the Licence				
						impact on a breeding site	allow damage of breeding site	allow damage of a resting place	allow destruction of breeding site	allow destruction of a resting place
2020-50534-EPS-MIT	BLE, C-PIP, L-HORSE, S-PIP, WHISK	840M	WEST	01/01/2021	01/07/2032	Y	Y	Y	N	Y
2017-32246-EPS-MIT	C-PIP	1KM	WEST	19/01/2018	12/01/2028	N	N	Y	N	Y
EPSM2013-6824	C-PIP; S-PIP	1.06KM	WEST	06/12/2013	30/09/2014	N	-	-	N	Y
2018-33465-EPS-MIT	BLE, C-PIP, L-HORSE, SER, S-PIP, WHISK	1.75KM	NORTHWEST	27/04/2018	27/04/2028	N	N	N	N	Y
2017-32361-EPS-MIT	S-PIP	1.9KM	SOUTHWEST	12/02/2018	12/02/2023	N	N	N	N	Y
EPSM2009-1446	C-PIP; BLE; SER; S-PIP	2KM	SOUTHWEST	10/01/2010	01/10/2011	N	-	-	N	Y

Table 3.5.24. Species known within 1km of the site.

Species name	Latin
Common pipistrelle	<i>Pipistrellus pipistrellus</i>
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>
Brown long-eared bat	<i>Plecotus auritus</i>
Lesser horseshoe bat	<i>Rhinolophus hipposideros</i>
Whiskered bat	<i>Myotis mystacinus</i>
Serotine Bat	<i>Eptesicus serotinus</i>
Greater horseshoe	<i>Rhinolophus ferrumequinum</i>
Daubentons	<i>Myotis daubentonii</i>
Noctule	<i>Nyctalus noctula</i>

- 3.4.16 The data search results showed that the bat species recorded locally is diverse with annexe 2 species lesser and greater horseshoe recorded within 1 km of the site. This is not that unexpected given the proximity to Chilmark Quarry SAC, which is located 10km to the Northeast. After consulting Wiltshire councils' guidance documents the site is not within the Zone of Impact for either of the species core foraging zone.
- 3.4.17 The remainder of the records mostly concern common and widespread species, with a number of these, the common pipistrelle and soprano pipistrelle bats, being known to breed close to the site.

HAZEL DORMOUSE

- 3.4.18 Two records of hazel dormouse (*Muscardinus avellanarius*) were returned within the 1km search area with the most recent being 2016.
- 3.4.19 Given the current site conditions, it is assumed that hazel dormouse can be discounted from the site as no suitable structure exists for an arboreal mammal to move across the site. The garden grassland habitat is suboptimal, and the species is discounted from requiring any further assessment.

POLECAT

- 3.4.20 One record of European Polecat (*Mustela putorius*) was returned within the 1km search area from 2011.
- 3.4.21 Given the current site conditions, it is assumed that European polecat can be discounted from the site, no suitable structure exists, and the garden grassland habitat is suboptimal.

BADGER

- 3.4.22 Thirteen records of badger were returned from the local data search; these were dated from 1965 to 2008 and the closest was within 600m of the site.
- 3.4.23 There were no signs of badger (*Meles meles*) observed when undertaking the site walkover. However, given the site's location, historic records and surrounding habitat, it is anticipated that badger is present locally, but not within the site confines.

OTHER TERRESTRIAL MAMMALS

- 3.4.24 Seven records of European hedgehog (*Erinaceus europaeus*) were returned within the search area; it is anticipated that hedgehogs are present locally as there are suitable foraging resources available nearby. The site holds nominal potential for hedgehogs other than foraging as it lacks any structure other than the boundary hedge to provide the necessary shelter.
- 3.4.25 Brown hare (*Lepus europaeus*) are not expected to be present on site, they are more readily associated with arable landscapes and there are sufficient anthropological barriers to prevent them utilising the site, however within the wider landscape they are known to be present locally.

NON-NATIVE INVASIVE SPECIES (INNS)

- 3.4.26 There were no signs of INNS observed during the site walkover and no records returned from the data search.

SPECIES DISCOUNTED FROM ASSESSMENT

- 3.4.27 Water vole (*Arvicola amphibius*) has been discounted from the assessment although three records exist for the species with the most recent being 2012, they are all located at the extremity of the search radius, along the River Nadder, the site holds no suitable habitat for the species.
- 3.4.28 Otter (*Lutra lutra*) have been discounted from the assessment although four records for the species were returned with the most recent dated in 2012 it is determined that the site holds little value to the species. The results were all located along the River Nadder at the extremity of the search radius.

- 3.4.29 Beaver (*Castor fiber*) and White-clawed crayfish (*Austropotamobius pallipes*) have been discounted from assessment as no suitable aquatic habitats are located on site or within a 1km proximity. The closest suitable aquatic habitat is located approximately 1 km southwest of the site boundary, relating to the River Nadder. The river is sufficiently separated from the site by distance as such no negative impacts would occur on aquatic species during the proposed development.
- 3.4.30 Red squirrel (*Sciurus vulgaris*) has been discounted from the assessment. Red squirrel populations are limited to small areas of northern England and Brownsea Island, Dorset; with no previous records returned in the data search. It is anticipated that high abundances of grey squirrel are present within this region (Shuttleworth/RSST n.d.). This species will displace red squirrel through competition as well as cause increased red squirrel mortality through the spread of squirrel pox (The Mammal Society, 2020).

4 MITIGATION RECOMMENDATIONS

4.1 DESIGNATED SITES

- 4.1.1 The site is located within the impact risk zone of Lower Coombe and Ferne Brook Meadows SSSI site. It is anticipated that the SSSI is a sufficient distance away from the site and that the proposals will not have a detrimental effect of the status of the SSSI, therefore no consultation will be required to facilitate the development.
- 4.1.2 Careful consideration will however be required during the construction phase to prevent surface run off and contamination of the surrounding land, especially to the northwest where the land runs down into the headwater catchments of the River Nadder.
- 4.1.3 The proposed development does not meet the criteria listed on Magic.gov.uk which would require consultation with Natural England.

You do not need to consult Natural England on the proposed development at this location.

The Impact Risk Zones for Sites of Special Scientific Interest (SSSI IRZs) indicate that at the location selected, the proposed development is unlikely to have a harmful effect on terrestrial Sites of Special Scientific Interest (SSSIs) and the Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites that they underpin.

Therefore, you do not need to consult Natural England on the likely impacts of development on terrestrial SSSIs and the SACs, SPAs or Ramsar sites that they underpin.

4.2 HABITATS

TREES

- 4.2.1 Where possible existing trees should be retained, those that are must be protected with appropriate RPA zones in line with BS 5837 guidance throughout the construction process.
- 4.2.2 Three of the trees are good examples of their species and are in good physiological and structural condition, these being, T1, T4 and T10. It is suggested that these specific trees are included at design stage into the development as they offer the most habitat and biodiversity potential on site.
- 4.2.3 If any of the trees are to be removed within the proposals it is suggested that they are fully inspected for nesting birds prior to being removed.
- 4.2.4 Consideration should be given to additional planting of flowering plants and flora within the site and a landscape plan produced to allow for soft landscaping between the site boundaries and the new dwelling, which will benefit invertebrates and other fauna, and is likely to considerably enhance the site visually and also providing a buffer zone to the surrounding habitats.

4.3 SPECIES

AMPHIBIANS

- 4.3.1 Common amphibians may be present nearby to the site, although they are not expected to be found within the site boundary. During any site clearance, any amphibians encountered should be carefully moved by hand out of the development area.

REPTILES

- 4.3.2 Common species of reptile are deemed unlikely to be found within site, however, given that the wider landscape is suitable and records exist for common species nearby precautions should be followed when undertaking ground preparation for the development. It is recommended that the grass is maintained at a short sward height to dissuade reptiles from foraging on site and enable them to be easily spotted prior to work commencing, and a site walkover undertaken immediately prior to works starting.

BIRDS

- 4.3.3 Birds were identified utilising the site and surrounding habitats. It is recommended that prior to any vegetation clearance or tree removal; a site walkover is completed to check for breeding birds. As all birds are protected by law when actively nesting it is suggested that any tree removal falls outside the period of March through September if possible.
- 4.3.4 Additional bird boxes should be provisioned for common passerine species to replace any lost trees or vegetation; these can be affixed in the retained trees and on any new buildings constructed on site as boxes or inbuilt structures.

BATS

- 4.3.5 No evidence of roosting bats was found during the detailed assessment of the site trees and no PRF's were identified in any of the tree specimens. Local records show a high assemblage of species locally and within a 3km radius of the site.
- 4.3.6 It is suggested that the areas to the northwest and immediate west of the site be specifically considered, as these hold the optimal habitat towards the River Nadder riparian zone, Lower coombe and Fern Meadows SSSI. The east and southern boundaries are more residential and the presence of the A30 bordering the east of the site is considered to be a major anthropological barrier to bat activity.
- 4.3.7 Given that it is likely that multiple trees will need to be removed to facilitate the development, additional consideration should be given to fragmentation of commuting and foraging zones and within the proposals a landscaping plan to include nectar rich plants to encourage invertebrate activity and the inclusion of linear features such as hedgerows and trees will help to enhance the completed project.
- 4.3.8 It is not deemed necessary to undertake any bat activity surveys as the area of ground is considered very small and of minimal significance to the wider environment. Therefore, these would be disproportionate to the proposed developments scale and potential effect on the surrounding habitats and species assemblage.
- 4.3.9 Given that particularly light sensitive species are known to be present from the data search, these being the lesser and greater horseshoe and brown long-eared bats, a detailed lighting plan should be provided preconstruction phase during the design process.
- 4.3.10 It is recommended that a detailed lighting design is prepared predevelopment, and any proposed new dwelling and associated lighting should follow the guidance outlined in the Institute for Lighting Engineers document "Guidance for the Reduction of Obtrusive Lighting" (2005) and BCT's "Bats and Artificial Lighting at Night" (2023).

Lighting plans should consider the following,

- Keep site lighting to minimum levels.
- Luminaries should lack UV elements and preferably LED lighting with a warm white light should be used over cool white light (ideally <2700Kelvin).
- Lighting should feature peak wavelengths greater than 550nm.
- Light placement should be downward facing to prevent excess horizontal or vertical light spill.
- The use of integrated fittings such as cowls, shields, louvres and hoods, that effectively contain light spill from unintended areas.
- The use of hard landscaping features to block light and create dark corridors.
- Avoid illuminating habitats of value to the north and east of the site.
- Use of timed security lights should be set on motion-sensors and using short, 1-minute timers, to minimise light use.

TERRESTRIAL MAMMALS

- 4.3.11 European Hedgehog are anticipated to be present near the site and are a Species of Principal Importance. If identified during the construction phase, they should be relocated carefully by hand to a location away from the working area.

4.3.12 Badgers are not anticipated to be utilising the site however could be present in the local area. The following Precautionary Working Methods will be adhered to during construction phase to ensure that no badgers are impacted by the proposed development:

- All site operatives will be inducted to the potential presence of the species and the species legal protection.
- All site operatives will be inducted as to identifying potential badger setts and should be vigilant if they suspect they locate a new sett during works and inform the site manager immediately. A minimum 20m buffer will be maintained from the potential sett until an ecologist has been to site.
- All excavations will be battened at a 45-degree angle or ramps to be positioned to allow escape should animals become trapped.
- All site machinery and materials will be appropriately stored to avoid harm to the species, notably between July and November each year when extra care is needed to avoid potential impacts on pregnant females.

5 FURTHER SURVEYS AND CONCLUSION

5.1. FURTHER SURVEYS

5.1.1 No further surveys are deemed necessary to inform the proposed mitigation.

5.2. CONCLUSION

- 5.3.1** The site was found to predominantly comprise of modified grassland in the form of a residential garden with interspersed trees. The boundaries of the site were dominated by anthropological barriers; however, the surrounding environment holds good ecological value. The proposals are to construct a new dwelling onto the site, resulting in the loss of a large area of the modified grassland and potentially some of the existing trees.
- 5.3.2** There will be a high level of disturbance to the site during the demolition and construction phases, in particular vehicular traffic, noise and light pollution and as such several species could be directly affected by the proposals.
- 5.3.3** Although the site falls within the zone of influence of the Lower Coombe and Fern Meadows SSSI, Natural England will not need to be consulted as the proposal's effect on the designated site is considered negligible due to the distance between them and the scope of the development.
- 5.3.4** It is recommended that documentation is provided prior to commencing works to ensure prevention of pollution and contamination of the nearby watercourses, in relation to groundwater runoff, sewage provisions and potential damage arising from the construction stage.
- 5.3.5** Nesting birds will be required to be protected, and it is preferred that any site clearance and preparation works occur outside of the period March – September. If this cannot be followed, then additional Ecological Clerk of Works work will be required to search all areas and trees affected by the proposals.
- 5.3.6** A lighting plan will be designed to maintain a dark corridor to the west and suitable foraging habitat for bats within the wider site setting, as the new dwelling will be the first building within the site, consideration at the design stage will be given to all external lighting and its location, this will be relevant to the local bat populations and should be designed in conjunction with a suitably qualified ecologist and lighting engineer.
- 5.3.7** There is an opportunity to consider enhancement of the site which could include the following:
- Bat and bird boxes could be placed around the perimeter of the site on retained mature trees. A plan to show the locations of these boxes and the specifications should be produced by a suitably qualified ecologist once the site layout is finalised.
 - Any development of the modified grassland and garden landscaping should consider nectar rich native species to provide foraging resources for invertebrates which in turn will benefit other species.
 - Consideration of boundary features and preference for hedgerows and non-solid structures, if fencing is used then inclusion of hedgehog holes to allow movement between the site and the surrounding environment.

6 BIBLIOGRAPHY

- Badger Trust (2023). Badger Protection: Best Practice Guidelines for Developers, Ecologists and Planners (England).
- Bat Conservation Trust and Institute of Lighting Professionals (2023). Bats and artificial lighting at night – Guidance Note (GN08/23)
- British Hedgehog Preservation Society / People's Trust for Endangered Species (2019). Hedgehogs and Development. BHPS / PTES.
- Chanin P (2003). Ecology of the European Otter. Conserving Natura 2000
- CIEEM (2019). Advice Note on the Lifespan of Ecological Reports and Surveys. CIEEM.
- CIEEM (2019). Guidelines for Preliminary Ecological Appraisal. CIEEM.
- Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.
- Collins (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (Fourth Edition). The Bat Conservation Trust, London.
- Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. British Birds 108, 708–746. Available online at britishbirds.co.uk/wp-content/uploads/2014/07/BoCC4.pdf IEA (1995). Guidelines for Baseline Ecological Assessment. E & F Spon.
- English Nature (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
- Environment Agency. Catchment Data Explorer. Available: <https://environment.data.gov.uk/catchment-planning/WaterBody/GB104027062880>.
- Froglife (2016) Reptile Survey: An Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation. Froglife Advice Sheet 10. Froglife, Halesworth.
- Gent, A.H & Gibson, S.D. (2003) Herpetofauna Workers' Manual. Joint Nature Conservation Committee, Peterborough.
- Harris S., Cresswell P., Jefferies D. (1989). Surveying Badgers. The Mammal Society.
- IEA (1995). Guidelines for Baseline Ecological Assessment. E & F Spon.
- JNCC (2004). Bat Workers Manual. JNCC, Peterborough.
- JNCC (2010). Handbook for Phase One Habitat Survey – 2010 Edition. England Field Unit, Nature Conservancy Council. Reprinted JNCC.
- Maddock, A. (2008). UK biodiversity action plan; priority habitat descriptions. UK Biodiversity Action Plan.
- Mathews, F., Kubasiewicz, L.M., Gurnell, J., Harrower, C.A., McDonald, R.A., and Shore, R.F. (2018). A review of the population and conservation status of British mammals.
- Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001), Great crested newt conservation handbook, Froglife, Halesworth.
- Oldham, R.S., Keeble, J., Swan, M.J.S., and Jeffcote, M. (2000). Evaluating the suitability of habitat for the Great

Crested Newt (*Triturus cristatus*). *Herpetology Journal* 10 (4), 143-155.

- UKHab Ltd (2023). The UK Habitat Classification, Version 2.0 (at <https://www.ukhab.org>).
- MAGIC.gov.uk. online portal.
- Wiltshire council, advice on construction work within ZOI of Bat SAC -Chilmark quarry 2018

7. APPENDIX



Description	Photographs
Photograph 1 View looking north at expanse of modified grassland with access track to static home park on left hand of photo and scattered trees in centre.	 A photograph showing a wide, green grassy field under a clear sky. In the foreground, a gravel access track runs diagonally from the bottom left towards the center. To the left of the track, there is a wooden fence and some trees. In the center of the field, several trees are scattered. In the background, a white building is visible behind a line of trees.
Photograph 2 View of remainder of the eastern side of the modified grassland with associated scattered trees	 A photograph showing a grassy field with several large, mature trees in the center. The trees have dense green foliage. In the background, a stone building with a chimney is visible. The foreground shows a gravel path and some low-lying vegetation.

Photograph 3

Looking east at the eastern portion of the modified grassland, showing access track and the A30 in the background.



Photograph group 4

Showing T11 with boundary hedge to right hand extent of photo



Photograph 5

Group of 3 trees showing T8, T9 and T10 in foreground, with T11 in background. Viewed looking north



Photograph 6

Showing T1 with T2 and T3 directly behind to the right. Viewed looking west.



Photograph 7

Group of trees T5, T6 and T7 on the eastern boundary. Looking east.



Photograph 8

T4 alongside the eastern boundary and continuation of the boundary hedge line.



Photograph 9

View north east along the A30 road from the south corner of the site and access track.



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