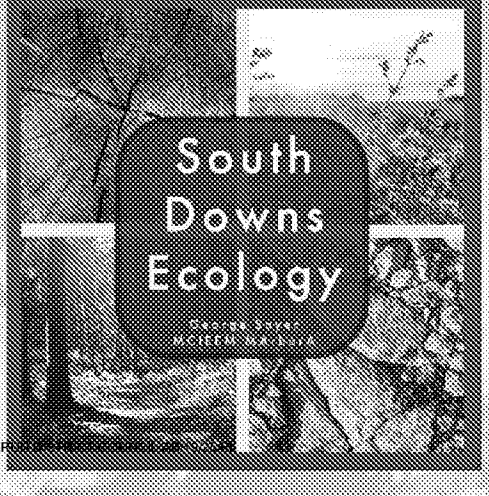
Ecological Impact Assessment

Land West of Hanger Down House



Quality Assurance:

Document reference	GS433LandWestofHangerDownHouse.EcIA.v1
Site	Land West of Hanger Down House
Client	Mr A Ayling
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Revision Number	1
Report issue date	29.01.2025

Report conditions	The methods and recommendations in this report are based on the following:
	• CIEEM Guidelines for Ecological Report Writing 2017 (CIEEM, 2017)
	• CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018)
	• Surveys have been carried out following the guidance sources set out in CIEEM's Good Practice Guidance for Habitats and Species (CIEEM, 2021), which include:
	  ○ CIEEM Guidelines for Preliminary Ecological Appraisal, Second Edition (CIEEM, 2017)
	  ○ CIEEM Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. Second Edition (CIEEM, 2017)
	  ○ Bat Conservation Trust (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (BCT, 2023)

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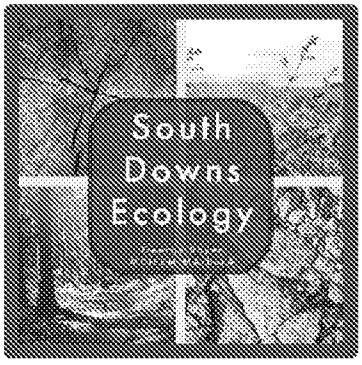

Summary

Mr A Ayling has commissioned a Preliminary Ecological Appraisal (PEA), Preliminary Roost Assessment (PRA) and Ecological Impact Assessment (EcIA) of proposals at the existing site - Land West of Hanger Down House, BN18 0FP *(grid refence: TQ 0006 4711, hereafter referred to as 'the site'*).

A Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment were carried out on the 5th December 2024 by George Sayer (*BSc (Hons)* Environmental *Sciences, PgDip Endangered Species Recovery, MArborA, MCIEEM, NE Licence Holder – Bats Level 2 and GCN - Ecologist*).

The proposal area consists primarily of modified grassland surrounded by a native hedgerow on the western and southern boundary, with scattered trees to the east. The northwest corner is of vacant land used for bonfires and storage of materials with sparse scrubby vegetation noted. In the southeast corner of the site is a single garage (B1).

The proposals involve the construction of a new dwelling with associated landscaping.

The proposals are not anticipated to have any significant impact upon ecology; the garage is considered to offer 'low' bat roost suitability. However, the building is not to be affected by works. Once mitigation measures listed herein are followed, no impacts are foreseen upon ecology.

No further surveys are currently recommended at the site for these proposals.

The proposals are not considered to have significant negative impacts upon habitats or protected species in accordance with planning policy and once enhancements are considered (including proposals to ensure the mandatory Biodiversity Net Gain), could result in a minor net gain. The proposals would therefore accord with the Arun District Local Plan, the NPPF (2024) and relevant legislation.

1.0 Introduction

1.1 Mr A Ayling has commissioned a Preliminary Ecological Appraisal, Preliminary Roost Assessment and Ecological Impact Assessment at the existing site - Land West of Hanger Down House, BN18 0FP (grid refence: TQ 0006 4711 hereafter referred to as 'the site').

1.2 A Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment was carried out on the 5th December 2024 by George Sayer (BSc (Hons) Environmental Sciences, PgDip Endangered Species Recovery, MArborA, MCIEEM, NE Licence Holder – Bats Level 2 and GCN - Ecologist).

1.3 The following ecological impact assessment report has been completed by George Sayer. The purpose of the assessment has been to identify whether any potential impacts upon protected species, habitats or designated sites might occur, and to propose mitigation or avoidance measures where necessary.

1.4 Based on the results of the appraisal, recommendations for potential ecological enhancements have been provided.

Site Description and Surrounding Area

1.5 The proposal area consists primarily of modified grassland surrounded by a native hedgerow along the western and southern boundary. The northwest corner is of vacant land used for bonfires and storage of materials with sparse scrubby vegetation present. In the southeast corner of the site is a single garage (B1) and to the east are several scattered trees.

1.6 The site is bound by the garden of Hanger Down House to the east. Arable fields lie to the south and west. Priory Lane is to the north. The site is located 0.2km to the south of Arundel. The majority of the surrounding area is rural consisting of floodplain, arable fields and Binsted Woods 0.3km west.

1.7 No ponds are located onsite. 6no. ponds are noted approximately 0.2km southeast and the River Arun lies 0.6km east.

Proposals

1.8 The proposals involve the construction of a new dwelling with associated landscaping in the centre of the site. The existing garage would be retained and the new driveway extended to meet this.

2.0 Scope of Assessment

1. *Categorise habitats present on the site;*
2. *Identify habitat which may have potential for protected species;*
3. *Identify whether any signs of protected species are present on-site;*
4. *Recommend whether further surveys are required, or whether there are any relevant constraints with regards to protected species;*
5. *Identify impacts of the proposed development and set out appropriate avoidance, mitigation and compensation measures;*
6. *Provide recommendations as to how the site and proposals could be enhanced with regards to protected species and habitats.*

2.1 This appraisal and assessment is deemed to be relevant for a maximum of 18 months due to the possibility of changes in the habitats on-site. Should the site or proposals alter, the ecologist should be consulted to confirm that the appraisal is still valid.

3.0 Planning Policy and Legislation

National Planning Policy

3.1 The National Planning Policy Framework (NPPF) was updated in December 2024 and sets out the government planning policies for England and how they should be applied. 'Chapter 15: Conserving and Enhancing the Natural Environment' states that development should be 'minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'

3.2 The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

Local Planning Policy

3.3 The site is within the Arun District; the proposals should be assessed against the Arun District Local Plan 2011-2031. Local Planning Policy relevant to this site include Policies ENV SP1 (Biodiversity), W SP1 (Flooding and Drainage), ENV DM1 (Designated Sites of Biodiversity and Geological Importance), ENV DM3 (Biodiversity Opportunity Areas), ENV DM4 (Protection of Trees), ENV DM5 (Development and Biodiversity) AND GI SP1 (Green Infrastructure and development) of the Arun Local Plan 2011 – 2031 (adopted 2018).

3.4 The Arun District adopted Plan (adopted 2018) Policy H SP2 states development must:

Protect, conserve or enhance the natural environment, landscapes and biodiversity;

3.5 Policy ENV SP1 states:

Arun District Council will encourage and promote the preservation, restoration and enhancement of biodiversity and the natural environment through the development process and particularly through policies for the protection of both designated and non-designated sites.

3.6 Policy W SP1 states development will be supported when it:

Takes account of flood risk and promotes the incorporation of appropriate mitigation measures into new development, particularly Sustainable Drainage Systems that reduces the creation and flow of surface water and improves water quality;

3.7 Policy ENV DM1 Designated Sites of biodiversity or geological importance states:

a. Proposed development likely to have an adverse effect on land with the designated features of any Site of Biodiversity or Geological Importance as listed in Tables 17.1 - 17.7 or any subsequently designated sites (either individually or in combination with other developments), will not normally be permitted. Consideration will be given to the exact designated features present on the site, their scarcity/rarity and recognition of the protection offered by their existing status. Development on wildlife sites with the highest value will only be permitted exceptionally where the following can be demonstrated:

i. There is no alternative solution (which shall be adequately demonstrated by the developer).

ii. There are reasons of public health or public safety or Adoption Arun Local Plan 2011-2031 (July 2018) Arun District Council 209 17 Natural Environment

iii. There are benefits of primary importance to the environment or iv. There are imperative reasons of overriding public interest. Notwithstanding the above however, the presumption in favour of sustainable development does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined.

b. In determining any planning application affecting Sites of Biodiversity or Geological Importance the Council will ensure that the intrinsic natural features of particular interest are safeguarded or enhanced having regard to;

i. The European, National or Local status and designation of the site;

ii. The nature and quality of the site's features, including its rarity value; iii. The extent of any adverse impacts on the notified features of interest; iv. The need for compensatory measures in order to re-create remaining features of habitats on or off the site. c. Where appropriate the Council will ensure the effective management of designated sites through the imposition of planning conditions or Section 106 agreements as appropriate.

3.8 Policy ENV DM3 Biodiversity Opportunity Areas states that development shall:

a. Retain and sympathetically incorporate locally valued and important habitats, including wildlife corridors and stepping stones

b. Be designed in order to minimise disturbance to habitats

Development proposals that do not reasonably address opportunities for enhancing these through their design, layout and landscaping or access/management shall not be permitted. Where a development scheme would result in a habitat loss, mitigation measures will be proposed as part of the proposed scheme and such measures agreed with the Local Planning Authority prior to the determination of any planning application. Within Biodiversity Opportunity Areas (BOAs) identified on the Policies Maps or where likely to have an impact on species or habitats within the BOAs, any application for planning permission shall include a properly conducted survey of the presence of that species and habitat and impact(s) that development may have on the BOA.

3.9 Policy ENV DM4 Protection of trees states that:

Development will be permitted where it can be demonstrated that trees protected by a Tree Preservation Order(s), (TPO) identified as Ancient Woodland, in a Conservation Area or contributing to local amenity, will not be damaged or destroyed now and as they reach maturity, unless development:

a. Would result in the removal of one or more trees in the interests of good arboricultural practice. This shall be demonstrated by the developer following the advice of a suitably qualified person which shall be guided by BS 5837 (2012). Details of any advice received having regard to BS 5837 (2012) shall be submitted, in writing, as part of a planning application; or

b. Would enhance the survival and growth prospects of other protected trees;

c. The benefits of the proposed development in a particular location outweigh the loss of trees or woodland, especially ancient woodland.

Where planning permission is granted in any of the above instances, conditions shall be used to ensure that, for any trees which are removed as part of a development, at least an equivalent number of a similar species and age (where practical) are planted on the proposed development site. Sufficient space for replacement trees to mature without causing future nuisance or damage shall be provided. The planting of new trees shall form an integral part of the design of any development scheme. Proper provision must be made for the protection and management of trees or areas of woodland on-site when undertaking development. A management plan shall be provided as part of a planning application in accordance with BS 5837 (2012) in order to ensure that trees are adequately protected during development and appropriately maintained in the future. Conditions for the continued protection of trees on sites shall be included in any planning permission given. Where there are existing trees on or adjacent to a development site, developers shall be required to provide:

d. Land and tree surveys

e. A tree constraints plan

f. An arboricultural impact assessment to include a tree protection plan and arboricultural method statement

These will ensure that development is planned to take a comprehensive view of tree issues at an early stage in the design process and that development works do not have a negative impact on existing trees.

3.10 Policy ENV DM5 Development and biodiversity states that:

Development schemes shall, in the first instance, seek to achieve a net gain in biodiversity and protect existing habitats on site. They shall also however incorporate elements of biodiversity including green walls, roofs, bat and bird boxes as well as landscape features minimising adverse impacts on existing habitats (whether designated or not). Development schemes shall also be appropriately designed to facilitate the emergence of new habitats through the creation of links between habitat areas and open spaces. Together, these provide a network of green spaces which serve to reconnect isolated sites and facilitate species movement. Where there is evidence of a protected species on a proposed development site, planning applications shall include a detailed survey of the subject species, with details of measures to be incorporated into the development scheme to avoid loss of the species. This involves consideration of any impacts that will affect the species directly or indirectly, whether within the application site or in an area outside of the site, which may be indirectly affected by the proposals. All surveys shall be carried out at an appropriate time of year and shall be undertaken by a qualified and, where appropriate, suitably licensed person. All developments shall have regard to Natural England's standing advice for protected species.

3.11 Policy GI SP1 Green Infrastructure and development states:

The existing Green Infrastructure Network, as shown on the Green Network Maps for each parish and town, must be considered at an early stage of the design process for all major development proposals.

All major development must be designed to protect and enhance existing Green Infrastructure assets, and the connections between them, in order to ensure a joined up Green Infrastructure Network. The Green Infrastructure Network must be protected from light pollution to ensure that areas defined by their tranquillity are protected from the negative effects of light in development.

Where compatible with nature conservation objectives, development proposals must identify opportunities to connect existing Green Infrastructure assets with the coast, the South Downs National Park or to the District's inland villages. Opportunities to enhance the network should take account of the multiple functions of Green Infrastructure assets and should be based upon those opportunities set out in the supporting text.

4.0 Methodology

Desktop Study

4.1 A desktop study was conducted using the government 'MAGIC' Map GIS tool; a search was carried out for all international statutory designated sites (Ramsar, SAC, SPA) within 2.0 km of the site; national statutory designated sites (SSSI, NNR, LNR) within 2.0 km of the site; and non-statutory designated sites (SNCI) and priority habitats within 1.0 km of the site. Any sites of relevance to the proposals are summarized below and their significance considered in the context of the development proposals. A search was also carried out to identify features of ecological interest in the area, such as water bodies and ancient woodland. Given the overall scale and nature of the site and the proposals, a full data search from SxBRC was not considered appropriate. This is in accordance with CIEEM current guidance for such projects (CIEEM 2023).

Site Visit

4.2 A site visit was conducted on 5th December 2024 during suitable conditions (8°C, light rain with 100% cloud and a light breeze). Habitats were recorded broadly according to the UK-Hab Classification System as described within the UK Habitats Manual v2.01 (UKHab Ltd 2023). All habitats present on-site were recorded on a UKHab map (*Figure No. 01 – Site Habitat Plan*).

4.3 During the survey any constraints with regard to protected species were considered; the site was considered for its potential for protected species even when signs of these species were not noted at the time of survey.

4.4 The building was assessed by an experienced, licenced bat surveyor (George Sayer 2018-34434-CLS) for its suitability to hold roosting bats; roof voids were assessed where relevant, and access points identified using high power torch; endoscope and binoculars as appropriate. Any evidence of bats such as grease marks, bat droppings, urine splashes were noted. The bat roost assessment was conducted following the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines Fourth Edition (2023). Bat roost suitability is assigned to buildings ranging from 'negligible', to 'low', 'moderate' and 'high'.

4.5 Due to the site visit being carried out over one day, it is possible that some signs of protected species may not be apparent within this short timeframe. This is a constraint recognised within the Survey Guidelines and all reasonable effort has been made to identify evidence of protected species.

Ecological Impact Assessment

4.6 The methodology for Ecological Impact Assessment (EcIA) follows best practice guidelines set by the Chartered Institute of Ecology & Environmental Management (CIEEM): 'Guidelines for Ecological Impact Assessment' (CIEEM, 2018). This includes identifying the baseline conditions on the site and subsequently rating the potential effects of the development based on the sensitivity and value of the resource affected, combined with the magnitude, duration and scale of the impact (or change). This is initially assessed without mitigation measures, and then assessed again after allowing for the proposed mitigation measures; this provides the residual effects. The assessment is divided into construction effects and longer-term operational effects.

4.7 Each ecological feature within the site has been considered within a defined Geographic context such as:

- International and European;
- National;
- Regional;
- County;
- District;
- Local;
- Site Level;
- Negligible.

4.8 Based upon CIEEM guidance, value was determined with reference to the following factors:

- Its inclusion as a Designated Site or other protected area;
- The presence of habitat types of conservation significance, e.g. Habitats of Principal Importance (NERC 2006);
- The presence (or potential presence) of species of conservation significance e.g. Species of Principal Importance (NERC 2006);
- The presence of other protected species e.g. those protected under The Wildlife and Countryside Act 1981;
- The sites social and economic value.

4.9 Specifically in the case of bats, the impact assessment has been conducted in accordance with the recently published Bat Mitigation Guidelines (Reason and Wray 2023). Other relevant guidelines such as the Dormouse Conservation Handbook, Great Crested Newt Mitigation Guidelines and Froglife Advice Sheet for Reptiles were consulted as appropriate.

5.0 Baseline Ecological Conditions

Desktop Study

Designated Sites and Habitats within 2.0km

5.1 The following information is included so that the site can be considered within the ecological context of the surrounding area, guiding decisions related to habitat change and protected species; these sites are not necessarily representative of the habitat on or surrounding the site and may not be influenced by the proposals. No non-statutory protected sites were noted within a 1.0km radius of the site.

5.2 The closest designated site is Arundel Park SSSI, 1.5km northwest. The site lies within the SSSI's Impact Risk Zone (IRZ). Due to the nature of the proposals, the LPA will not have to consult with Natural England. The site lies 7.4km to the south of Duncton to Bignor Escarpment SAC and 7.4km south of Arun Valley Ramsar.

Habitats

Desk Study

5.3 Within 1.0km of the site there are Priority Habitats of Coastal Saltmarsh, Mudflats, Coastal and Floodplain Grazing Marsh, Intertidal Substrate foreshore, Chalk Rivers, Deciduous Woodland and Traditional Orchards. The closest Priority Habitat is Coastal and Floodplain Grazing Marsh, located 0.2km east.

Site Assessment

5.4 The proposal area consists primarily of modified grassland surrounded by a native hedgerow on the western and southern boundary. The northwest corner is of vacant land with sparse scrubby vegetation. In the southeast of the site is a single garage (B1) and to the east are several scattered trees. These habitats are of **low value** and discussed below.

U1b5 – Building

5.5 B1 is a timber frame garage with interlocking concrete roof tiles and wooden doors in the southeastern corner of the site. A small timber shed sits behind this. This habitat is of **negligible ecological value.**

G4 32 108 – Modified Grassland, frequently-mown with scattered trees

5.6 The majority of the site consists of modified grassland with low species diversity. Species comprise primarily of red fescue *Festuca rubra* and perennial ryegrass *Lolium perenne*. The grass appears well maintained at a low sward height. Scattered trees are noted within the grassland and just offsite to the north and east. Species include ash *Fraxinus excelsior,* English oak *Quercus robur* and beech *Fagus sylvatica*. This habitat is of **site ecological value.**

H2a6 – Other Native Hedgerow

5.7 The hedgerow which lines the southern and western boundaries consists of hawthorn *Crataegus monogyna,* blackthorn *Prunus spinosa* and crab apple *Malus sylvestris*. The hedgerow is thin and approximately 3.5 metres tall. This habitat is of **site ecological value.**

U1f 82 – Vacant Land

5.8 In the northwestern corner of the site is an area of vacant land. The area is sparsely colonised by scrub, forbs and grasses. Species include bramble *Rubus fruticosus agg.,* blackthorn *Prunus spinosa,* cocksfoot *Dactylis glomerata* and ivy *Hedera helix*. This habitat is of **site ecological value.**

6.0 Protected Species Assessment

Bats

Desk Study

6.1 There is 1no. European Protected Species Mitigation License *EPSML* in relation to bats within a 2.0km radius of the site which is not currently active.

6.2 The licence permitted the destruction of and damage to a resting place for brown long eared bat (BLE) *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus* and serotine *Eptesicus serotinus*. It was active between 2015 – 2020.

Site Assessment - Buildings

6.3 B1 is garage of timber frame construction with interlocking concrete roof tiles. Externally, the roof tiles are well sealed. There is a continuous gap along the eaves which allows access for bats into the space between tile and internal membrane. This gap is large (c.100mm high) and not highly-suitable for bats; however bats could potentially roost behind roof battens in the space.

6.4 The external walls are covered in timber cladding, which is well-sealed with several possible small gaps at the gable ends which could act as ingress / exit points or crevices for bats.

6.5 Internally, B1 has an open roof lined with a modern roofing membrane. The building is used for storage and was not fully accessible, but large areas were available for access.

6.6 During the survey no evidence of bats was noted internally or externally.

6.7 Due to the presence of potential ingress / exit points, but exposed nature of the spaces these open into and the lack of evidence of bats, the building is considered to be of **low** bat roost suitability.

6.8 A small timber shed sits (B2) behind the garage. The building displays no suitable roost features or access points and offers **negligible** suitability.

Foraging and Commuting

6.9 The grassland offers little value to bats. The hedgerows and trees along the site boundary likely offer foraging and commuting value for bats moving between the River Arun (0.6km east) and Binsted Woods (0.3km west). The boundary habitats offer **local suitability** for foraging and commuting bats. The grassland offers **site suitability.**

Birds

Desk Study

6.10 Numerous nesting bird species are present in the local area, including a number of farmland species e.g. – yellowhammer *Emberiza citronella* and skylark *Alauda arvensis*. Hedgerow species include blackbird *Turdus merula* and dunnock *Prunella modularis*. Many species recorded locally are wetland and wading birds which use the nearby riverine habitats.

Site Assessment

6.11 Should the doors of the garage be left open over a continued period of time, it is likely that species such as house sparrow *Passer domesticus* could start to nest within. They could also access at the eaves; however, no signs of previous nesting attempts were noted.

6.12 The hedgerows and trees are of value to nesting birds and the grassland is of foraging value to species such as starling *Sturnus vulgaris* and robin *Erithacus rubecula*. The habitats onsite are of **site value** to foraging and nesting birds.

Reptiles and amphibians

Desk Study

6.13 There are multiple records of reptiles and amphibians within a 2.0 km radius of the site. Great crested newts are not well-recorded locally with the nearest known records being at North End over 5.0 km away.

Site Assessment

6.14 The grassland is of little value to reptiles due to its low sward height. However, the unkempt edges of the site offer some foraging and commuting value around the site, connecting the wider area. The area of vacant land offers foraging value due to the bramble area with tall grass, and debris might offer some hibernation potential. Overall, the grassland is of **negligible value** to reptiles. The site edges are of **site value** to reptiles.

6.15 6no. ponds are located 0.3km southeast. Aeriel imagery appears to show the intervening land is well-tended gardens and arable field, of little value to amphibians and separated by a road. The majority of the site itself is also of little value to amphibians due to the low sward height. A ditch is present off-site to the east but this is a well-managed drainage feature which would not support breeding. The grassland offers **negligible ecological value** for amphibians. The site edges offer **site value** for widespread amphibians.

Badger

[redacted]

Dormice

Desk Study

6.18 The nearest record for dormice *Muscardinus avellanarius* are c.4.0 km west; however, it is known that dormice live within the Binsted Woods which begin c.0.4km west.

Site Assessment

6.19 To the west, the boundary hedges do have some connectivity to Binsted Woods through overhanging roadside trees; the connectivity is relatively patchy. The site offers no connectivity to the east. The hedges on-site offer very limited potential for dormice; these are thin and therefore exposed to the elements such as prevailing winds from the south-west; in addition there are relatively few forage species to provide a year-round supply of food for dormice. The hedgerows offer **low potential** for dormice at the **site level.**

Other

6.20 The site offers value for foraging and commuting hedgehogs *Erinaceus europaeus* along the boundaries and within the grassland. This is somewhat limited by the boundary walls and fences.

7.0 Evaluation of Impacts and Mitigation

Designated Sites

Potential Impacts

7.1 Due to the nature and scale of the proposals, in addition to the site location, the impact upon designated sites is **negligible.**

Avoidance, Mitigation and Compensation

7.2 None required.

Residual Impacts

7.3 The impacts will be negligible.

Habitats

Potential Impacts

7.4 The proposals would primarily impact modified grassland and vacant land. The proposals have the potential to cause damage to hedgerows and trees along the site boundary. Impacts are of **minor magnitude** at **site level.**

Avoidance, Mitigation and Compensation

7.5 All construction will be undertaken in accordance with best practice advice with regards to control of dust, noise and emissions. No chemicals or fuels shall be stored on open or soft ground. All materials and plant shall be stored on existing sealed surfaces or ground protection measures shall be implemented. Trees and hedgerows shall be protected from harm in accordance with British Standard 5837:2012. A tree protection package accompanies the application.

7.6 New hedge planting and infill planting with trees will more than make up for the loss of the grassland on-site.

Residual Impacts

7.7 Once mitigation is taken into account, the impacts will be negligible.

Bats

Potential Impacts

7.8 The building B1 is classified as having **low** bat roost suitability; however, the proposals will not impact the building with this being retained and re-used as a garage. As such no impacts are foreseen upon roosting bats and no further surveys or mitigation are recommended.

7.9 The garage may be repainted which could potentially leach fumes up into the roof. Should proposals change to involve alterations to the building, further surveys may be required.

7.10 The hedgerows surrounding the site are likely part of foraging and commuting routes for bats across the wider area. Inappropriate lighting during the construction and operation phases could lead to degradation and severing of these corridors.

Avoidance, Mitigation and Compensation

7.11 No hedgerows or trees are to be affected by works.

7.12 Works shall be designed to minimise disturbance of any bats which might use the surroundings. No external lighting shall be installed other than minimal downlighting of entrances and the access drive. Such lighting must strictly accord with the BCT/ILP Guidance Note 08/23, with minimal illumination of the western and northern boundary in particular (taken to be no more than 0.4 lux other than for emergency lighting). Construction phase lighting shall not be used.

7.13 Trees and hedges to be retained must be protected in accordance with British Standard 5837:2012 as described above. A tree protection package accompanies the application detailing how these features are to be protected.

7.14 Any repainting of the garage should use products listed on the Natural England Guidance: *Timber-treatment products suitable for use in or near bat roosts (2020, available at: https://www.gov.uk/government/publications/bat-roosts-insecticides-and-timber-treatments/timber-treatment-products-suitable-for-use-in-or-near-bat-roosts)*

Residual Impacts

7.15 The overall impact of the scheme will be negligible.

Nesting Birds

Potential Impacts

7.16 Should proposals require removal of shrubs, hedgerow or trees, a bird nest could be disturbed by works. Additionally, works in proximity to these features could disturb nesting birds.

Avoidance, Mitigation and Compensation

7.17 No vegetation removal is currently proposed. Any clearance of materials within the garage will aim to avoid the bird nesting season (March-August inclusive). If this is not possible then a final check for nesting birds must be undertaken within 48 hours of disturbing works commencing.

7.18 During the course of works, if a bird's nest is suspected to be active near to works, all operations will cease and a suitably qualified ecologist contacted for advice. Should an active nest be identified or found, a 5.0m buffer zone will be set up around the nest, in which no works will occur until the nest has fledged.

Reptiles and Amphibians

Potential Impacts

7.19 The clearance of the site to enable construction could harm individual reptiles and remove a very limited area of habitat. The risk is very low at the site level.

Avoidance, Mitigation and Compensation

7.20 To ensure the modified grassland does not become suitable for reptiles prior to works commencing, it should be maintained at its current sward height. Any longer grass requiring removal shall first be manually-mown to the maximum height of the mower, inspected for any reptiles and cut a further 24 hours later to ground level prior to clearance. Given the very low risk it is deemed acceptable to undertake this without ecologist supervision.

Residual Impacts

7.21 The overall impact of the scheme will be negligible.

Badger

Potential Impacts

Other

7.29 There is a **low** potential for hedgehogs to be disturbed through inappropriate clearance or storage of material. The above vegetation clearance, habitat and badger protection measures will be sufficient to protect hedgehogs.

Avoidance, Mitigation and Compensation

7.30 All materials shall be stored on hard surfaces or pallets, up off the ground and away from site margins. Any piles of aggregates, timber etc. must be checked for presence of wildlife before removal. All excavations must be covered overnight or fitted with rough timber angled planks to allow animal escape, and checked every morning for wildlife.

Residual Impacts

7.31 The overall impact of the scheme will be negligible.

8.0 Ecological Enhancements

8.1 In accordance with current National and Local Plan Policy, the proposals must achieve achieve measurable gains for biodiversity, but as a self-build proposal on less than 0.5 ha are currently exempt from mandatory Biodiversity Net Gain under the Environment Act 2021. The most beneficial enhancements would involve the following:

- Installation of new bat roost features to the building, in the form of 1no. cavity and 1no. crevice bat box;
- Installation of bird nesting features to the building such as an integrated sparrow terrace and swift box;
- Installation of an insect feature in a secluded location, either a bug hotel or log pile;
- Addition of bee bricks to the dwelling, and log piles to the corners of site;
- Planting of fruit and nut producing trees and hedges to increase foraging provisions for birds within the site;
- Reinforcement of the existing hedge with another row of hedge plants, preferably with new species to increase diversity and structure;
- Planting of night flowering plants to increase foraging provisions for bats within the site;
- Installation of a hedgehog box to the garden.

9.0 Conclusions

9.1 Overall, the proposals are considered to have a 'negligible' impact upon ecology and no further surveys are recommended. The proposal area consists primarily of modified grassland with scattered trees, surrounded by a native hedgerow. A small area of vacant land is in the northwest corner and a single garage in the southeast corner.

9.2 The proposals are not anticipated to have any significant impact upon ecology; the single garage offers 'low' bat roost suitability, but proposals stand a 'negligible' chance of disturbing bats or their roosts due to their nature. Foraging and commuting habitats will be protected through mitigation and compensation measures mentioned herein. No further surveys are currently recommended at the site for these proposals.

9.3 No impacts upon designated sites or priority habitats are foreseen.

9.4 When mitigation and enhancements have been taken into account, the proposals are not considered to have a negative impact upon habitats or protected species in accordance with planning policy and once enhancements are considered, would result in a minor net gain. The proposals would therefore accord with the relevant local and national planning policies and the relevant legislation.

10.0 References

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11.0 Species Lists

Modified Grassland

Common Name	Scientific Name	DAFOR
Cocksfoot	*Dactylis glomerata*	F
Creeping Buttercup	*Ranunculus repens*	F
Daisy	*Bellis perennis*	LF
Groundsel	*Senecio vulgaris*	R
Perennial Ryegrass	*Lolium perenne*	D
Red Fescue	*Festuca Rubra*	A
Selfheal	*Prunella vulgaris*	LF

Hedgerows and Trees

Common Name	Scientific Name	DAFOR
Apple	*Malus domestica*	R
Ash	*Fraxinus excelsior*	O
Beech	*Fagus sylvatica*	O
Crab Apple	*Malus sylvestris*	O
Elm	*Ulmus minor*	LA
English Oak	*Quercus robur*	F
Hawthorn	*Crataegus monogyna*	LD
Sweetgum	*Liquidambar styraciflua*	R
Wellingtonia	*Sequoiadendron giganteum*	R
Willow	*Salix sp.*	R

Vacant Land

Common Name	Scientific Name	DAFOR
Blackthorn	*Prunus spinosa*	O
Bramble	*Rubus fruiticosus agg.*	LA
Cocksfoot	*Dactylis glomerata*	F
Ivy	*Hedera helix*	LA
Stinking iris	*Iris foetidissima*	R
Tall Fescue	*Schedonorus arundinaceus*	O
Vetch	*Vicia sp.*	O

12.0 Appendix A - Site Photos

Photo 1 – View looking east along southern boundary.

Photo 2 – Vacant land in the northwest of the site.

Photo 3 – Eastern hedgerow and trees.

Photo 4 - View of garage.

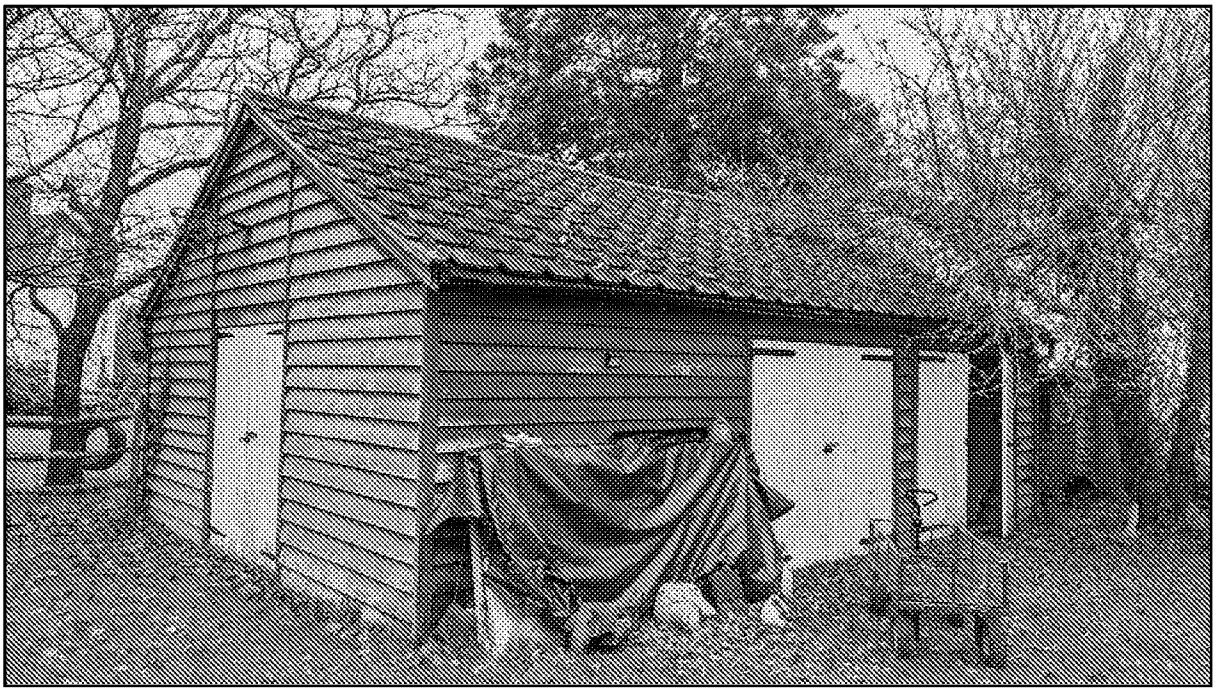

Photo 5 – Closeup showing gaps along the gable end.

Photo 6 – Internal view of the roofing membrane.

Photo 7 – Photo showing inside of the garage.

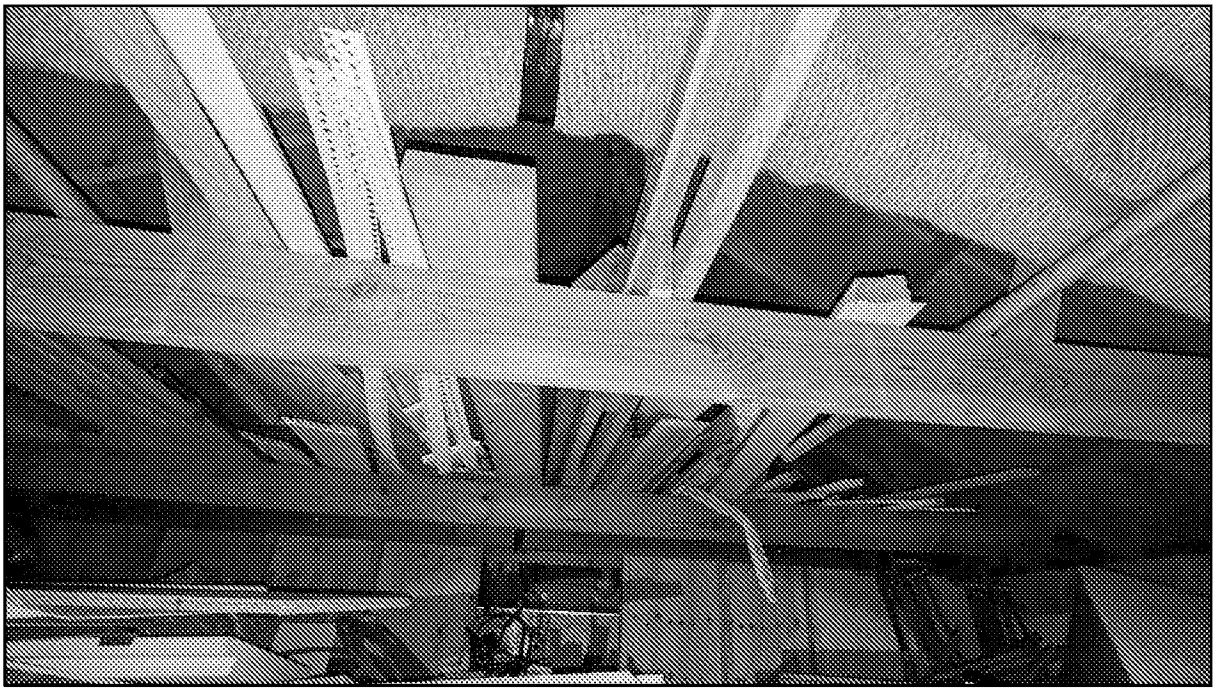

Photo 8 – Photo showing the well-tended nature of the grass.

Photo 9 – Overgrown patch of vacant land.

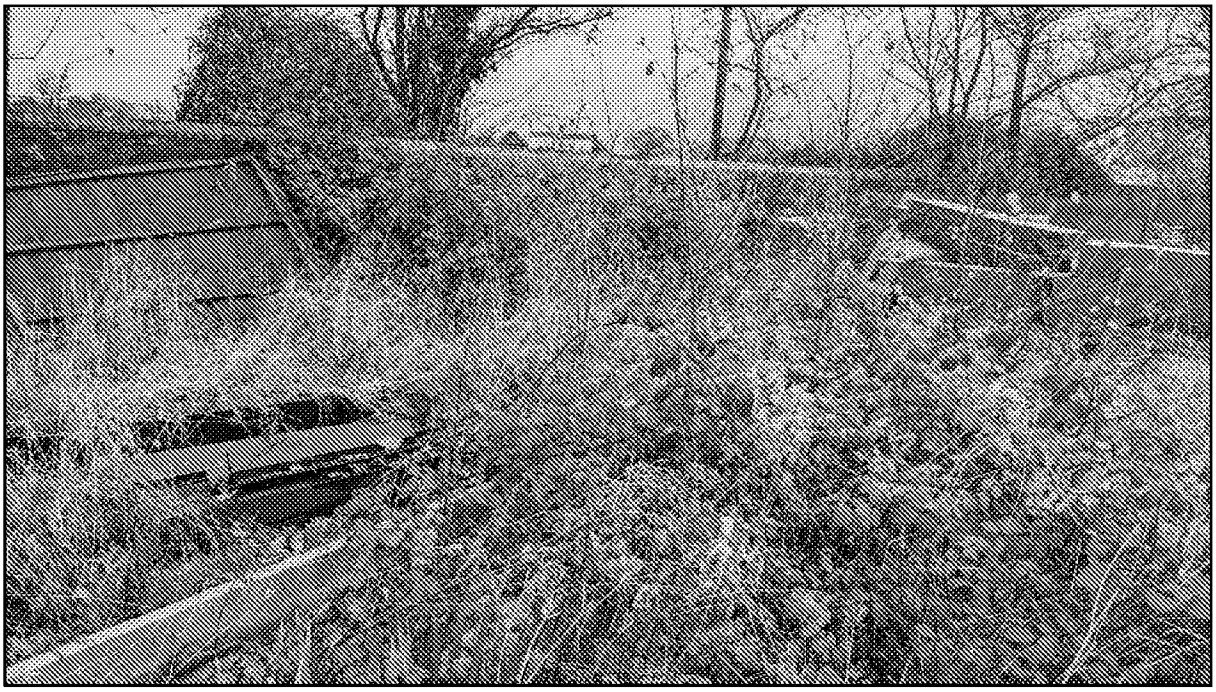

Photo 10 – Shed B2.

13.0 Figure No. 01 – Site Aerial

14.0 Figure No. 02 – Site Habitat Plan

Site Habitat Plan
Land West of Hanger Down House