



Preliminary Ecological Appraisal and Preliminary Roost Assessment

Mine Pitts, Symonds Yat, Herefordshire, HR9 6DY

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Status	Issue	Name	Date
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Final	2	Jonathan Stuttard, Senior Consultant BSc (Hons) MSc	02/12/2022

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Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

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.

This approach is enshrined in Government planning guidance, for example, paragraph 174 of the National Planning Policy Framework for England.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by Craig Barnes to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at Mine Pitts, Symonds Yat, Herefordshire, HR9 6DY (hereafter referred to as “the site”). The survey was required to inform a planning application which details the extension and renovation of an existing residential dwelling (hereafter referred to as “the proposed development”).

The following further survey work and mitigation measures have been recommended to comply with current wildlife legislation, national planning policy, and local planning policy. It is noted that enhancement measures have also been recommended and are detailed within the full evaluation provided in **Table 8**.

Feature	Foreseen impacts	Recommendations <i>Measures required to adhere to guidance, legislation and planning policies.</i>
Required to inform the planning application		
Designated Sites	<p>The proposed development is mostly located within the existing building and bare ground curtilage of limited ecological value. However, approximately 0.004ha of amenity grassland and 0.003ha of introduced shrubs will be removed to facilitate the new extension.</p> <p>Due to the small scale of the works and distance between the site and nearest designations, no direct impacts to designated sites are anticipated. However, there is potential for indirect impacts to foraging and commuting horseshoe bats that represent a qualifying feature of the Wye Valley Woodland SAC and Wye Valley and Forest of Dean Bat SAC in the form of increased artificial lighting and increased air pollution resulting from the proposed development.</p>	<p>The Local Planning Authority (LPA) may be required to complete a Habitat Regulations Assessment (HRA) should there be likely significant effects to the SACs with potential functional links to the site as a result of the proposed development.</p> <p>It is therefore recommended that a HRA screening assessment is undertaken, which will assess and define SAC impact pathways resulting from the development and subsequently determine if likely significant effects are anticipated. Should likely significant effects be expected as a result of the proposed development, the HRA screening will highlight where additional information is required to inform the planning application and in turn allow the LPA to complete the HRA.</p>
Roosting bats	<p>Building B1 is assessed to provide moderate value to support roosting bats.</p> <p>The proposed development comprises the partial demolition and full renovation of B1. These works will</p>	<p>Current guidance states that buildings that provide moderate value to roosting bats should be subject to further surveys to determine the presence or likely-absence of roosting bats.</p> <p>In line with current guidelines, it is recommended that two dusk emergence/ dawn-re-entry surveys are completed for building B1 to determine the presence or likely-absence of roosting bats prior to development works. The surveys should be separated by a minimum</p>

	<p>impact suitable roosting features recorded during the PRA and could cause death or injury to bats if present.</p>	<p>of two weeks and must be undertaken during the active bat season between May and September, where at least one survey is undertaken during the optimum season for survey between mid-May and August.</p> <p>Three surveyors are recommended to provide full coverage of the building, as shown on the plan in Appendix 4.</p> <p>Please note that if bats are recorded roosting within B1, a further survey will be required to characterise the roost in line with current guidelines. The roost characterisation surveys will be required to inform an EPSL application to Natural England to allow the lawful progression of the proposed development.</p>
<p>Recommended mitigation - typically implemented post-planning</p>		
Amphibians	<p>The proposed development is mostly located within the existing building and bare ground curtilage of limited ecological value. However, approximately 0.004ha of amenity grassland and 0.003ha of introduced shrubs will be removed to facilitate the new extension.</p> <p>This limited vegetation removal is likely to be inconsequential for local amphibian populations. However, development works have potential to cause death or injury to common amphibians if present.</p>	<p>Owing to the nature of the proposed development and the low potential for impacts to amphibians, further surveys are considered disproportionate. A precautionary working method is considered suitable to mitigate any impacts to amphibians during construction. Further details can be found in Table 8.</p>
Foraging and commuting bats	<p>The proposed development is mostly located within the existing building and bare ground curtilage of limited ecological value. However, approximately 0.004ha of amenity grassland and 0.003ha of introduced shrubs will be removed to facilitate the new extension.</p> <p>This limited vegetation removal is likely to be inconsequential for local bat populations. However, there is potential for indirect impacts to foraging and commuting bats utilising woodland adjacent to the site as a result of the proposed development in the form of increased artificial lighting.</p>	<p>A low impact lighting strategy should be considered for any proposed lighting, which should focus on preventing light spill over adjacent habitats of value to foraging and commuting bats. Any lighting should be installed in accordance with the following measures to comply with current guidelines with regards to the impacts of artificial lighting on bats (Bat Conservation Trust and the Institute of Lighting Professionals 2018). Further details can be found in Table 8.</p>

Nesting Birds	<p>The proposed development comprises the partial demolition and full renovation of B1. These works have potential to destroy an active bird nest if present.</p>	<p>Development works to B1 should commence outside of the core breeding bird season period, which is typically between 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building should be undertaken prior to the commencement of work. All active nests will need to be retained until the young have fledged.</p>
Dormice	<p>The proposed development is mostly located within the existing building and bare ground curtilage of limited ecological value. However, approximately 0.004ha of amenity grassland and 0.003ha of introduced shrubs will be removed to facilitate the new extension.</p> <p>This limited vegetation removal is likely to be inconsequential for local dormouse populations. However, development activities could result in the death or injury of dormice if present and crossing the site.</p>	<p>Owing to the nature of the proposed development and the low potential for impacts to dormice, further surveys are considered disproportionate. A precautionary working method is considered suitable to mitigate any impacts to dormice during construction. Further details can be found in Table 8.</p>
Hedgehogs	<p>The proposed development is mostly located within the existing building and bare ground curtilage of limited ecological value. However, approximately 0.004ha of amenity grassland and 0.003ha of introduced shrubs will be removed to facilitate the new extension.</p> <p>This limited vegetation removal is likely to be inconsequential for local hedgehog populations. However, development activities could result in the death or injury of hedgehogs if present and crossing the site.</p>	<p>Owing to the nature of the proposed development and the low potential for impacts to hedgehogs, further surveys are considered disproportionate. A precautionary working method is considered suitable to mitigate any impacts to hedgehogs during construction. Further details can be found in Table 8.</p>

Reptiles	<p>The proposed development is mostly located within the existing building and bare ground curtilage of limited ecological value. However, approximately 0.004ha of amenity grassland and 0.003ha of introduced shrubs will be removed to facilitate the new extension.</p> <p>This limited vegetation removal is likely to be inconsequential for local reptile populations. However, development works have potential to cause death or injury to reptiles if present.</p>	<p>Owing to the nature of the proposed development and the low potential for impacts to reptiles, further surveys are considered disproportionate. A precautionary working method is considered suitable to mitigate any impacts to reptiles during construction. Further details can be found in Table 8.</p>
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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Craig Barnes to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at Mine Pitts, Symonds Yat, Herefordshire, HR9 6DY (hereafter referred to as “the site”). The survey was required to inform a planning application which details the extension and renovation of an existing residential dwelling (hereafter referred to as “the proposed development”). A plan showing the proposed development is provided in **Appendix 1**. The aim of the PEA and PRA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development.

The site has not been subject to previous ecological assessment by Arbtech Consulting Limited or any other consultant to the knowledge of the author.

1.2 Site Context

The site is located at National Grid Reference SO 55562 15601 and has an area of approximately 0.03ha. The site is characterised by a detached cottage and adjacent gardens and driveway. Habitats recorded on site include building, amenity grassland, introduced shrubs, bare ground, and wall. The site is located rurally within woodland located 0.5km west of Symonds Yat and the River Wye. The site is enclosed on all aspects by mature mixed woodland. A site location plan is provided in **Appendix 2**.

1.3 Scope of the Report

This report describes the baseline ecological conditions at the site, evaluates habitats within the survey area in the context of the wider environment and describes the suitability of those habitats for notable or protected species. It identifies possible ecological constraints as a result of the proposed development and summarises the requirements for further surveys to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation. Furthermore, this PEA includes the results of a PRA. The PRA includes a description of features that provide potential to support roosting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence recorded during the site survey that establishes the presence of roosting bats. To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken to record baseline information on the site and surrounding area including habitat types and their suitability for notable or protected species.
- Invasive plant and animal species (such as those listed on Schedule 9 of the Wildlife & Countryside Act) have been searched for.
- Potential impacts on features of value, as a result of the proposed development, have been identified.
- Recommendations for further surveys and mitigation have been made.
- Opportunities for the enhancement of the site for biodiversity have been set out.

2.0 Methodology

2.1 Desk Study

The desk study included a 2km radius review of statutory designated sites and notable habitats, granted European Protected Species Licences (EPSL), and notable species records held on the magic.gov.uk database. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth and OS map. Furthermore, the location of non-statutory designated sites was reviewed using the interactive map published by the Herefordshire Wildlife Trust.

2.2 Field Survey

The field survey was undertaken by Jonathan Stuttard BSc (Hons) MSc (Senior Consultant) on 21st November 2022. Jonathan Stuttard holds Natural England bat licence **2022-10409-CL17-BAT** and Natural England great crested newt licence **2015-19037-CLS-CLS**.

Extended Phase 1 Habitat survey

An extended habitat survey was undertaken following the methodology set out in *Phase 1 Habitat Survey Methodology* (JNCC, 2010). All land parcels are described and mapped and, where appropriate, target notes provide supplementary information on habitat conditions, features too small to map to scale, species composition, structure, and management. During the survey, habitats were assessed for their suitability to support protected species, and field signs indicating their presence recorded. The assessment takes into consideration the findings of the desk study, the habitat conditions on site and in the context of the surrounding landscape, and the ecology of the protected species.

Preliminary Roost Assessment

The PRA comprised an assessment of buildings to be impacted by the proposed development for their potential to support roosting bats. The surveys were led by an experienced ecologist and were based on current best practice guidelines (Collins, 2016). All features that are likely to be impacted by the proposed development were assessed for their potential to support roosting bats. The surveyor systematically surveyed all features suitable for bats and signs of bat activity.

The PRA included a visual inspection (including the use of binoculars and torches where required) of the exterior of each building and tree for evidence of bat use (e.g. droppings, scratch marks, staining and sightings). Factors considered whilst undertaking the PRA comprised internal conditions, presence of features suitable for use by roosting bats, proximity to foraging habitats or cover and potential for disturbance. Notes were made relating to relevant characteristics of features providing potential access points and roosting opportunities for bats. **Table 1** below details the rationale for determining bat roost potential of buildings subject to the PRA.

Table 1: Rationale for assigning bat roost potential

Assigned Bat Roosting Potential	Description/ Rationale
Confirmed roost	Evidence of roosting bats within the building or tree.
High	A building or tree with one or more Potential Roost Features (PRFs) that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Medium	A building or tree with one or more PRFs that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only).
Low	A building or tree with one or more PRF that could be used by individual bats opportunistically. However, these PRFs do not provide enough space, shelter, protection, appropriate conditions 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 or hibernation).
Negligible	Negligible features on site likely to be used by roosting bats.

2.3 Limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the searches of historical biological records.

A biological records data search was not commissioned from the Local Environmental Records Centre. The location of historic protected and/ or notable species records have therefore not been considered. However, due to the small scale of the development and limited anticipated impacts, the absence of additional biological records data is not considered a significant limitation to this assessment.

The survey was undertaken during a suboptimal time of year when not all vegetative characteristics are present. However, given the type and extent of habitats recorded on site, the suboptimal timing is not considered a significant limitation to this assessment.

3.0 Results and Evaluation

3.1 Desk Study Results

A summary of desk study results is provided below.

Review of Supplementary Planning Guidance

Due to the location of the site near to the Wye Valley and Forest of Dean Bat Special Area of Conservation (SAC), where the nearest component site is located 10.5km northeast (Wigpool Ironstone Mine SSSI), specific guidance relating to bats published by Forest of Dean District Council has been reviewed as detailed within the *Wye Valley and Forest of Dean Bat SAC: Development Management Horseshoe Bat Activity Survey and Guidance* (Forest of Dean Council 2021) (hereafter referred to as “supplementary planning guidance”). Although there are no SAC component sites within 2km of the site, functionally linked habitats to component sites must also be considered. In accordance with the supplementary planning guidance, the site is located within 3km of a known lesser horseshoe maternity roost and within 3km of a greater horseshoe hibernation roost and thus habitats on and/ or adjacent to the site could be functionally linked to the SAC.

Designated Sites

The site is not subject to any statutory or non-statutory designations. However, six statutory designated sites are located within 2km comprising Special Areas of Conservation (SACs), Sites of Special Scientific Interest (SSSIs), a National Nature Reserve (NNR), and a Local Nature Reserve. Furthermore, two non-statutory designated sites are located within a 2km radius comprising Local Wildlife Sites (LWS). Details of these sites including reasons for notification (where available) are provided in **Table 2** below. It is noted that the site lies within several SSSI impact risk zones. However, the proposed development type is not listed as a possible high risk with regards to this designation.

Table 2: Designated sites within 2km radius of the site.

Designated site name	Distance from site (approx.)	Reasons for notification from Natural England and GCER
River wye Woodlands SAC	0.07km north	Asperulo-Fagetum beech forests for which this is considered to be one of the best areas in the United Kingdom. Tilio-Acerion forests of slopes, screes and ravines for which this is considered to be one of the best areas in the United Kingdom. <i>Taxus baccata</i> woods of the British Isles for which this is considered to be one of the best areas in the United Kingdom. <i>Rhinolophus hipposideros</i> for which the area is considered to support a significant presence.

Designated site name	Distance from site (approx.)	Reasons for notification from Natural England and GCER
Upper Wye Gorge SSSI	0.07km north	The site lies on the banks of the River Wye where it has cut a spectacular meandering gorge through Old Red Sandstone and Carboniferous Limestone in the vicinity of Symonds Yat. It consists of one of the most extensive blocks of semi-natural broadleaved woodland in the whole of the Wye Valley. Other habitats represented include woodland streams, small areas of limestone grassland and limestone rock outcrops. The site is also important for Pleistocene mammal remains.
River wye SAC	0.31km southeast	Water courses of plain to montane levels with the <i>Ranunculus fluitans</i> and <i>Callitriche-Batrachium</i> vegetation for which this is considered to be one of the best areas in the United Kingdom. Transition mires and quaking bogs for which the area is considered to support a significant presence. <i>Petromyzon marinus</i> for which this is considered to be one of the best areas in the United Kingdom. <i>Lampetra fluviatilis</i> for which this is considered to be one of the best areas in the United Kingdom. <i>Lampetra planeri</i> for which this is considered to be one of the best areas in the United Kingdom. <i>Alosa alosa</i> for which the area is considered to support a significant presence. <i>Alosa fallax</i> for which this is considered to be one of the best areas in the United Kingdom. <i>Salmo salar</i> for which this is considered to be one of the best areas in the United Kingdom. <i>Cottus gobio</i> for which this is considered to be one of the best areas in the United Kingdom. <i>Lutra lutra</i> for which this is considered to be one of the best areas in the United Kingdom. <i>Austropotamobius pallipes</i> for which this is considered to be one of the best areas in the United Kingdom.
Great Doward SSSI	0.71km Northwest	This site incorporates the two existing SSSI's of Kiln Tumps and Webbs Quarry. Webbs Quarry is an area of old quarry workings, which over a long period has become colonised by a rich limestone flora. This includes such characteristic calcicole (lime-loving) species as salad burnet <i>Sanguisorba minor</i> , wild thyme <i>Thymus praecox</i> , wild basil <i>Clinopodium vulgare</i> and hairy violet <i>Viola hirta</i> as well as wild madder <i>Rubia perigrina</i> and fly orchid <i>Ophrys insectifera</i> both of which are of local distribution. Webbs Quarry is also important as a site for the nationally rare fingered sedge <i>Carex digitata</i> . Kiln Tumps is an area of ancient limestone pasture, where the grassland community is exceptionally rich, with over 140 plant species recorded. These include less common species such as greater butterfly-orchid <i>Platanthera chlorantha</i> , autumn lady's-tresses <i>Spiranthes spiralis</i> and green-winged orchid <i>Orchis morio</i> .
Dowards Hill and Huntsman hill LWS	1.14km southwest	Not available through the Herefordshire Wildlife Trust Interactive Mapping.
Coppett Hill LNR	1.18km northeast	Wooded Habitat and open hillside. Notable for supporting a diverse assemblage of butterflies, bird, and fungi.
Coppett Hill LWS	1.18km northeast	Not available through the Herefordshire Wildlife Trust Interactive Mapping.
Lady Park Wood LNR	1.33km southwest	Lady Park Wood is a prime example of unmanaged, near natural woodland. The reserve was established by the Forestry Commission in 1945 as a long-term ecological project. Research aims to explore the natural processes that take place without human intervention such as tree felling, thinning or coppicing.

Landscape

A review of aerial photographs (Google Earth), the magic.gov.uk database and OS maps has been undertaken. Collated, habitats of potential high value within the wider landscape are described below:

The site is located rurally within woodland located 0.5km west of Symonds Yat and the River Wye. The site is enclosed on all aspects by mature mixed woodland. Further to the woodland immediately adjacent to the site, the landscape within 2km contains extensive woodland coverage including areas of deciduous woodland, ancient re-planted woodland, and ancient semi-natural woodland. Other habitats likely to represent significant ecological value in the wider landscape include wood pasture and parkland, lowland meadows, and traditional orchards. Connectivity between the site and these high value habitats is likely to be present for highly mobile protected and/ or notable species including bats and birds via linear features such as riparian habitat associated with the River wye and connecting tributaries, extensive woodland edge, and hedgerows. Furthermore, connectivity is also likely to be present for less mobile protected species groups such as amphibians and reptiles due surrounding vegetated habitats being unperturbed by extensive urban development and other potential barriers to dispersal.

Notable Habitats

Notable habitats within or connecting to the site are listed in **Table 3**.

Table 3: Notable habitats within or connecting to the site

<i>Habitat</i>	<i>Closest distance from site</i>
Deciduous woodland	Adjacent to the southwest.
Ancient re-planted woodland	Adjacent to the southwest.
Ancient semi-natural woodland	0.11km north.
Lowland meadows	0.41km northwest
Lowland meadows	1.26km northwest
Wood pasture and parkland	1.34km northwest

Notable Species

No granted EPSL were returned through the data search within 2km of the site.

3.2 Field Survey Results

The results of the field survey are illustrated in **Appendix 3**. The weather conditions recorded at the time of the survey are shown in **Table 4**.


Table 4: Weather conditions during the survey



Date: 21/11/2022	
Temperature	9.5°C
Cloud Cover	20%
Wind	5mph
Rain	heavy



Extended Phase 1 Habitat Survey

The site is characterised by a detached cottage and adjacent gardens and driveway. Habitats recorded on site include building, amenity grassland, introduced shrubs, bare ground, and wall. A description of each habitat is provided in **Table 5**.

Table 5: Description and photographs of habitats on site.

Habitat Type	Habitat description	Photograph
Buildings	<p>A single building is present on site (see Appendix 3) comprising a detached residential dwelling.</p> <p>This building and its value to roosting bats is described within the PRA section below.</p>	 <p>Figure 1: The northeast aspect of B1.</p>



<p>Amenity grassland</p>	<p>Amenity grassland dominates the garden enclosing the residential dwelling on site. The grassland appears to be subject to regular management and retains a short sward length of approximately 50-100mm. Due to regular management, the structural and species diversity is limited. Species recorded include perennial rye grass <i>Lolium perenne</i>, Yorkshire fog <i>Holcus lanatus</i>, yarrow <i>Achillea millefolium</i>, common dandelion <i>Taraxacum officinale</i>, red clover <i>Trifolium pratense</i>, creeping butter cup <i>Ranunculus repens</i>, rough hawkbit <i>Leontodon hispidus</i>, and creeping thistle <i>Cirsium arvense</i>. Occasional wood sorrel <i>Oxalis acetosella</i> and areas of sphagnum moss <i>Sphagnum spp.</i> are also present, likely due to the proximity to nearby woodland.</p>	 <p>Figure 2: Amenity grassland adjacent to the south of B1.</p>
<p>Introduced shrubs</p>	<p>Introduced shrubs are present within the garden enclosing the residential dwelling within ornamental planting beds. Although shrubs appear to be subject to intermittent pruning, management is likely to have recently lapsed allowing ruderal species to colonise within the planting beds. Ornamental species recorded include cotoneaster <i>Cotoneaster spp.</i>, pyracantha <i>Pyracantha spp.</i>, New Zealand flax <i>Thormium tenax</i>, rosemary <i>Rosemarinus officinalis</i>, harts tongue fern <i>Asplenium scolopendrium</i>, Male-fern <i>Dryopteris filix-mas</i>, geranium <i>Geranium spp.</i>, and ivy <i>Hedera spp.</i> Ruderal species sparsely distributed amongst the introduced shrubs include alexanders <i>Smyrmium alusatrum</i>, cleavers <i>Galium aparine</i>, common nettle <i>Urtica Dioica</i>, and ground elder <i>Aegopodium podagraria</i>.</p>	 <p>Figure 3: Introduced shrubs located adjacent to the south of B1.</p>


<p>Bare ground</p>	<p>Bare ground is present on site in the form of a gravel seating area in addition to worn pathways present due to regular access around the residential dwelling.</p>	<div data-bbox="1581 132 1995 687"></div> <div data-bbox="1476 692 2101 754"><p>Figure 4: Bare ground on site in the form of a gravel seating area.</p></div>
<p>Wall</p>	<p>A small section of retaining stone wall encloses a section of the gravel seating area.</p>	<div data-bbox="1581 762 1995 1313"></div> <div data-bbox="1489 1318 2087 1380"><p>Figure 5: The short section of retaining stone wall located on site.</p></div>


Preliminary Roost Assessment

An assessment of features with potential to support roosting bats to be impacted by the proposed development are described within **Table 6** below.

Table 6: Description and photographs of features with potential to support roosting bats.

Feature	Description and potential value to roosting bats	Photographs
Building B1 – External	<p>Building B1 is an extended, stone-built, detached cottage. Both the original cottage and perpendicular extension are two-storey with single-pitched roofs. A small single storey extension with a mono-pitched roof protrudes from the south building aspect. Numerous timber framed doors and windows are present on all aspects. The external finish of B1 varies; the original cottage comprises part-painted and part-exposed stonework, and the more recent extensions are fully rendered. All roof sections are clad with clay tiles and small dormer windows and Velux style roof lights are present to allow natural light to enter living accommodation within the roof space. Three chimney stacks are present.</p> <p>B1 appears to be showing some signs of dilapidation. Areas of the building retain some structural defects including missing mortar amongst stonework, lifted roof tiles, and missing ridge tiles. Furthermore, sections of the eaves remain unblocked exposing a cavity between the roof structure and stonework. These structural features are likely to provide access to an external cavity suitable to support crevice dwelling bats but are unlikely to provide access to any significant internal spaces as the roof spaces are converted for residential use (see below). These structural features are located directly adjacent to optimal foraging and commuting habitat for bats given the site’s proximity to extensive woodland coverage which increases the likelihood of occupation. However, no evidence indicating the presence of roosting bats was recorded externally during the PRA.</p> <p>It is noted that no evidence indicating the current or historic presence of nesting birds was recorded externally. However, there are nesting opportunities for a small number of common breeding birds.</p>	<div></div> <p>Figures 6 & 7:</p> <p>Left Northeast aspect of B1</p> <p>Right Southeast aspect of B1.</p>

<p>Building B1 – External</p>	<p>Figure 8 shows a close view of stonework on the south aspect of the original building section; the red arrow highlights areas of missing mortar that provide access into cavities suitable to support crevice dwelling bats.</p> <p>Figure 9 shows a close view of eaves on the south building aspect; the red arrow highlights the exposed roof rafters and open gap between the roof structure and external stone wall that is likely to provide access into an external cavity suitable to support crevice-dwelling bats.</p>	<div data-bbox="1263 365 2110 911"></div> <p>Figures 8 & 9:</p> <p>Left A close view of stonework on the south building aspect.</p> <p>Right A close view of the eaves on the south building aspect.</p>
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<p>Building B2 – Internal</p>	<p>Internally, the ground floor and all roof spaces are fully occupied and converted for residential use. As a result, there are no visible access opportunities into the building for bats and internal conditions are unsuitable to support roosting bats.</p> <p>No evidence indicating the presence of roosting bats was recorded internally during the PRA.</p> <p>Although it appears there are no suitable roosting features internally and B1 is unlikely to support a roost of high conservation significance such as a maternity or hibernation roost, structural features recorded externally are suitable to support crevice-dwelling bats and B1 is enclosed by optimal foraging and commuting habitat. B1 is therefore considered to provide moderate value to support roosting bats.</p> <p>It is noted that no evidence indicating the current or historic presence of nesting birds was recorded internally and there are no visible access opportunities into the building for birds.</p>	<div data-bbox="1263 363 2114 911"></div> <p>Figures 10 & 11:</p> <p>Left Internal view of B1 showing the converted roof space.</p> <p>Right Internal view of B1 showing the converted roof space.</p>
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Protected and/ Notable Species

An assessment of the suitability of the site for protected or notable species is provided in **Table 7**.

Table 7: Assessment of the suitability of the site for protected or notable species

Species	Assessment of suitability
Amphibians	<p>A review of the MAGIC database returned no granted EPSL records for great crested newts within 2km of the site.</p> <p>A review of aerial imagery indicates that there are no ponds located within 500m of the site. Great crested newts exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within suitably connected terrestrial habitats up to 500m from breeding ponds (Langton <i>et al.</i> 2001). Given the absence of suitable aquatic breeding opportunities for great crested newts within 500m, the presence of great crested newts on site is considered highly unlikely.</p> <p>Habitats on site are assessed to provide terrestrial opportunities for great crested newts and other common amphibians. Foraging and commuting opportunities are present in the form of introduced shrubs and amenity grassland, albeit limited in extent and suboptimal due to poor refuge from predation. However, gaps amongst stonework associated with the retaining wall provides optimal refuge opportunities for amphibians, albeit isolated by enclosing suboptimal habitat. Although there are no visible ponds present within 500m of the site and thus the presence of great crested newts is considered unlikely, amphibians such as common toads <i>Bufo bufo</i> have better mobility compared to newts and are able to travel further from breeding sites. Given this, although the presence of great crested newts is considered unlikely, the presence of common amphibians on site cannot be discounted.</p>
Badgers <i>Meles meles</i>	<p>A review of the MAGIC database returned no granted EPSL records for badgers within 2km of the site.</p> <p>Habitats recorded on site are assessed to provide foraging and commuting opportunities for badgers in the form of amenity grassland and introduced shrubs, albeit limited. However, no evidence indicating the presence of badgers was recorded and there are no badger setts on or within 30m of the site boundary.</p> <div data-bbox="524 1137 2123 1238" style="background-color: black; height: 63px; width: 100%;"></div>
Bats	<p>A review of the MAGIC database returned no granted EPSL records for bats within 2km of the site.</p> <p>However, building B1 is assessed to provide moderate value to support roosting bats.</p> <p>Furthermore, habitats recorded on site are assessed to provide foraging and commuting opportunities for bats in the form of amenity grassland and introduced shrubs. Most notably, the site is enclosed by optimal foraging and commuting habitat for bats in the form</p>

	<p>of deciduous woodland and ancient re-planted woodland. The habitat transition between the gardens associated with the site and adjacent woodland is likely to provide excellent microclimatic conditions suitable to support a significant number of invertebrates that will in turn provide foraging resources for bats. The woodland edge is also likely to represent a significant linear feature potentially utilised by commuting bats travelling between resources. Although on site habitats are managed and unlikely to represent a significant resource for bats in the context of the wider landscape, woodland enclosing the site is assessed to represent a significant resource and is likely to provide foraging, commuting, and roosting opportunities for local bat populations.</p> <p>The woodland enclosing the site is connected to an extensive woodland coverage in the wider landscape that is likely to be functionally linked to habitats associated with the Wye Valley Woodlands SAC and Wye Valley and Forest of Dean Bat SAC, where the nearest component sites are 0.07km and 10.5km from the site respectively. Both SAC sites are designated for their value to lesser horseshoe and greater horseshoe bats which represent qualifying features. Lesser horseshoe and greater horseshoe bat roosts associated with the SACs are present throughout the Wye Valley and Forest of Dean; a review of supplementary planning guidance highlights that the site is located within 3km of a lesser horseshoe maternity roost and within 3km of a greater horseshoe hibernation roost. Given this, it is possible that woodland enclosing the site is utilised by horseshoe bats that are functionally linked to the SAC designations.</p>
Birds	Due to the small size of the site and the extent and type of habitats recorded, habitats are not considered suitable to support a significant assemblage of protected and/or notable birds. However, building B1 is suitable to support a small number of nesting birds during the breeding season.
Hazel Dormouse <i>Muscardinus avellanarius</i>	<p>A review of the MAGIC database returned no granted EPSL records for dormice within 2km of the site.</p> <p>Habitats recorded on site provide highly limited opportunities for dormice. However, the deciduous and ancient woodland enclosing the site provides extensive optimal habitat to support dormice. Specifically, the woodland supports a diverse understorey and dense canopy layer suitable for nest construction, foraging, and commuting between resources. Although on site habitats are suboptimal given the absence of a continuous canopy layer and refuge from predation, dormice can sometimes be found commuting at ground level. Given that on-site habitats are enclosed by optimal dormice habitat, the presence of commuting dormice on site for transient periods cannot be discounted, although considered unlikely.</p>
Hedgehog <i>Erinaceus europaeus</i>	<p>Habitats recorded on site are assessed to provide foraging and commuting opportunities for hedgehogs in the form of amenity grassland and introduced shrubs, albeit limited. However, no evidence indicating the presence of hedgehogs was recorded on site.</p> <p>Although no evidence indicating the presence of hedgehogs was recorded during the site survey, the site has excellent connectivity to optimal foraging, commuting, and refuge habitat for hedgehogs within adjacent deciduous and ancient woodland. The future presence of hedgehogs foraging and commuting on site for transient periods can therefore not be discounted.</p>
Reptiles	<p>A review of the MAGIC database returned no granted EPSL records for reptiles within 2km of the site.</p> <p>Habitats recorded on site are assessed to provide foraging and commuting opportunities for reptiles in the form of amenity grassland and introduced shrubs, albeit limited. However, the enclosing woodland and transitional habitat between the site and woodland edge</p>

	provides good quality foraging, commuting, and basking opportunities for reptiles. Furthermore, the adjacent woodland is likely to provide extensive refuge opportunities for reptiles within areas of dense understorey and amongst log piles and within subterranean root networks. Although on site habitats are suboptimal to support reptiles for prolonged periods due to the absence of significant refuge opportunities, given that connectivity between the site and extensive suitable habitat is unperturbed by any barriers to dispersal, the presence of reptiles foraging or commuting for transient periods cannot be discounted.
Invasive species	No invasive faunal or floral species listed under schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were recorded on site (see Appendix 5).
Other protected and/ or notable flora and fauna	Due to the type and extent of habitats recorded, the site is not considered suitable to support any other protected and/ or notable species.

4.0 Conclusions, Impacts and Recommendations

4.1 Informative Guidelines

A summary of the relevant legislation and planning policies is provided in **Appendix 5**.

Likelihood of the Presence of Protected Species

Where physical evidence of the presence of protected species is indeterminate during the survey, the habitats on site are evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat.

Where this report supports a planning application, the ecological interest of the study area (i.e. the area covered by the desk study and field survey) and the proposed development has also been evaluated in terms of the planning policies relating to biodiversity.

4.2 Evaluation

Considering the results of the desk study and field survey results, **Table 8** presents an evaluation of the ecological value of the site and details any ecological constraints identified in relation to the proposed development.

Table 8: Evaluation of the site and any ecological constraints

Ref	Survey conclusions (see Table 8 for full justifications)	Impact assessment	Recommendations <i>Measures required to adhere to guidance, legislation and planning policies.</i>	Biodiversity Enhancements <i>The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021) and local Planning policy.</i>
Designated sites	<p>The site is not subject to any statutory or non-statutory designations. However, the nearest designated site is located 0.07km north.</p> <p>The woodland enclosing the site is connected to an extensive woodland coverage in the wider landscape that is likely to be functionally linked to habitats associated with the Wye Valley Woodlands</p>	<p>The proposed development is mostly located within the existing building and bare ground curtilage of limited ecological value. However, approximately 0.004ha of amenity grassland and 0.003ha of introduced shrubs will be removed to facilitate the new extension.</p> <p>Due to the small scale of the works and distance between the site and nearest designations, no direct impacts to designated sites are anticipated.</p>	<p>The Local Planning Authority (LPA) may be required to complete a Habitat Regulations Assessment (HRA) should there be likely significant effects to the SACs with potential functional links to the site as a result of the proposed development.</p> <p>It is therefore recommended that a HRA screening assessment is undertaken, which will assess and define SAC impact pathways resulting from the development and</p>	None.

	<p>SAC and Wye Valley and Forest of Dean Bat SAC, where the nearest component sites are 0.07km and 10.5km from the site respectively. Both SAC sites are designated for their value to lesser horseshoe and greater horseshoe bats which represent qualifying features. Lesser horseshoe and greater horseshoe bat roosts associated with the SACs are present throughout the Wye Valley and Forest of Dean; a review of supplementary planning guidance highlights that the site is located within 3km of a lesser horseshoe maternity roost and within 3km of a greater horseshoe hibernation roost. Given this, it is possible that woodland enclosing the site is utilised by horseshoe bats that are functionally linked to the SAC designations.</p>	<p>However, there is potential for indirect impacts to foraging and commuting horseshoe bats that represent a qualifying feature of the Wye Valley Woodland SAC and Wye Valley and Forest of Dean Bat SAC in the form of increased artificial lighting and increased air pollution resulting from the proposed development.</p>	<p>subsequently determine if likely significant effects are anticipated. Should likely significant effects be expected as a result of the proposed development, the HRA screening will highlight where additional information is required to inform the planning application and in turn allow the LPA to complete the HRA.</p>	
Habitats and flora	<p>Habitats recorded on site are considered common and widespread both locally and nationally and are of limited ecological value.</p> <p>However, the site is enclosed by woodland representative of the “lowland mixed deciduous woodland” Habitat of Principal Importance as listed on Section 41 of the NERC Act</p>	<p>The proposed development is mostly located within the existing building and bare ground curtilage of limited ecological value. However, approximately 0.004ha of amenity grassland and 0.003ha of introduced shrubs will be removed to facilitate the new extension.</p> <p>As a result, no direct impacts to adjacent areas of woodland are anticipated. Furthermore, the proposed</p>	<p>A minimum 15m buffer between development and designated ancient woodland should be retained and protected during construction. The buffer should be delineated using protective fencing, which should be installed prior to construction activity and maintained in-situ until the development is complete.</p> <p>Furthermore, a Construction Environmental Management Plan</p>	<p>It is noted that the client has permission to remove a tree line of non-native Leyland cypress trees currently present at the woodland edge within the associated garden. This will remove a non-native species from the woodland edge and enhance the woodland clearing for biodiversity.</p> <p>Further enhancement of the garden associated with the site for</p>

	(see Appendix 5) and designated ancient woodland.	<p>development footprint is located approximately 25m from the ancient woodland boundary, which is over the required 15m buffer between development and ancient woodland as stipulated by Natural England.</p> <p>However, there is potential for indirect impacts to S41 priority woodland and designated ancient woodland in the form of increased pollution during construction activity.</p>	(CEMP) should be completed, which would detail mitigation required to prevent impacts to adjacent woodland as a result of increased pollution during construction.	<p>biodiversity could be considered, such as:</p> <ul style="list-style-type: none"> • The planting of native shrubs at the woodland edge to enhance the structure of woodland edge habitat. • Creation of a wildflower grassland. • The creation of a new pond.
Amphibians	<p>A review of aerial imagery indicates that there are no ponds located within 500m of the site. However, habitats on site are assessed to provide terrestrial opportunities for amphibians. Foraging and commuting opportunities are present in the form of introduced shrubs and amenity grassland, albeit limited in extent and suboptimal due to poor refuge from predation. Although there are no ponds present within 500m of the site and thus the presence of great crested newts is considered unlikely, amphibians such as common toads <i>Bufo bufo</i> have better mobility compared to newts and are able to travel further from breeding sites. Given this, although the presence of great crested newts is considered unlikely, the</p>	<p>The proposed development is mostly located within the existing building and bare ground curtilage of limited ecological value. However, approximately 0.004ha of amenity grassland and 0.003ha of introduced shrubs will be removed to facilitate the new extension.</p> <p>This limited vegetation removal is likely to be inconsequential for local amphibian populations. However, development works have potential to cause death or injury to common amphibians if present.</p>	<p>Precautionary working methods when removing habitats of value to common amphibians are considered necessary to reduce the risk of impacts, including the following measures:</p> <ul style="list-style-type: none"> • A staged approach for introduced shrub clearance, whereby the vegetation will be trimmed initially to 15cm to allow any amphibians at ground level or below to disperse. The vegetation will then be cleared to ground level and must be maintained at this level for the duration of construction to deter amphibians from recolonising. • The retaining wall will be removed carefully by hand to prevent injury to common amphibians potentially seeking refuge within gaps in the wall. • Best practice pollution prevention measures will be implemented to minimise impacts to retained habitats that amphibians could use. 	<p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development to enhance the site for amphibians:</p> <ul style="list-style-type: none"> • Native tree, hedgerow and shrub planting. • Creation of wildflower grassland. • Creation of a new pond. • Creation of hibernacula to provide enhanced refuge and over-wintering opportunities.

	presence of common amphibians on site cannot be discounted.		<ul style="list-style-type: none"> Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. If any common amphibians are found in the working area, they will be relocated to an area of suitable habitat not impacted by the proposed development. In the highly unlikely event that a great crested newt is identified, works must cease and advice must be sought from the project ecologist on how to lawfully progress the development. 	
Roosting Bats	Building B1 is assessed to provide moderate value to roosting bats.	The proposed development comprises the partial demolition and full renovation of B1. These works will impact suitable roosting features recorded during the PRA and could cause death or injury to bats if present.	<p>Current guidance states that buildings that provide moderate value to roosting bats should be subject to further surveys to determine the presence or likely-absence of roosting bats.</p> <p>In line with current guidelines, it is recommended that two dusk emergence/ dawn-re-entry surveys are completed for building B1 to determine the presence or likely-absence of roosting bats prior to development works. The surveys should be separated by a minimum of two weeks and must be undertaken during the active bat season between May and September, where at least one survey is undertaken during the optimum season for survey between mid-May and August.</p>	To be confirmed following the results of further surveys.

			<p>Three surveyors are recommended to provide full coverage of the building, as shown on the plan in Appendix 4.</p> <p>Please note that if bats are recorded roosting within B1, a further survey will be required to characterise the roost in line with current guidelines. The roost characterisation surveys will be required to inform an EPSL application to Natural England to allow the lawful progression of the proposed development.</p>	
Foraging and Commuting Bats	<p>Habitats recorded on site are assessed to provide foraging and commuting opportunities for bats in the form of amenity grassland and introduced shrubs. Most notably, the site is enclosed by optimal foraging and commuting habitat for bats in the form of deciduous woodland and ancient re-planted woodland. Although on site habitats are managed and unlikely to represent a significant resource for bats in the context of the wider landscape, woodland enclosing the site is assessed to represent a significant resource and is likely to provide foraging, commuting, and roosting opportunities for local bat populations.</p>	<p>The proposed development is mostly located within the existing building and bare ground curtilage of limited ecological value. However, approximately 0.004ha of amenity grassland and 0.003ha of introduced shrubs will be removed to facilitate the new extension.</p> <p>This limited vegetation removal is likely to be inconsequential for local bat populations. However, there is potential for indirect impacts to foraging and commuting bats utilising woodland adjacent to the site as a result of the proposed development in the form of increased artificial lighting.</p>	<p>A low impact lighting strategy should be considered for any proposed external lighting during and post-development, which should focus on preventing light spill over adjacent habitats of value to foraging and commuting bats. Any external lighting should be installed in accordance with the following measures to comply with current guidelines with regards to the impacts or artificial lighting on bats (Bat Conservation Trust and the Institute of Lighting Professionals 2018):</p> <ul style="list-style-type: none"> • Use of narrow spectrum light sources to lower the range of species affected by lighting. • Use of light sources that emit minimal ultra-violet light. • Avoidance of white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm / neutral 	<p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development to provide enhanced opportunities for bats on site:</p> <ul style="list-style-type: none"> • Native tree, hedgerow and shrub planting. • Creation of wildflower grassland. • Creation of a new pond.

			<p>colour temperature <4,200 kelvin.</p> <ul style="list-style-type: none"> Absence of bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. <p>Light spill should be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only.</p> <p>External lighting should be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on.</p> <p>Wall lights and security lights should be 'dimnable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.</p>	
Badger		The proposed development is mostly located within the existing building and bare ground curtilage of limited ecological value. However, approximately 0.004ha of amenity		

	<p>[REDACTED] no evidence indicating the presence of badgers was recorded and there are no badger setts on or within 30m of the site boundary.</p> <p>[REDACTED]</p>	<p>grassland and 0.003ha of introduced shrubs will be removed to facilitate the new extension.</p> <p>This limited vegetation removal is likely to be inconsequential [REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p> <p>[REDACTED]</p>
Birds	<p>Due to the small size of the site and the extent and type of habitats recorded, habitats are not considered suitable to support a significant assemblage of protected and/or notable birds. However, building B1 is suitable to support a small number of nesting birds during the breeding season.</p>	<p>The proposed development comprises the partial demolition and full renovation of B1. These works have potential to destroy an active bird nest if present.</p>	<p>Development works to B1 should commence outside of the core breeding bird season period, which is typically between 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation and buildings should be undertaken prior to the commencement of work. All active nests will need to be retained until the young have fledged.</p>	<p>The installation of a minimum of five bird boxes should be incorporated into the proposed development. recommended bird boxes include:</p> <ul style="list-style-type: none"> • Woodstone Swallow nest bowl • Schwegler No 17 Swift Nest Box • Schwegler 1SP Sparrow Terrace • Schwegler 1B Nest Boxes • Schwegler 2H Robin Boxes • Woodstone Nest Box

				<p>Bird boxes and bricks should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole.</p> <p>Swift and sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction.</p>
Hazel Dormouse	<p>Habitats recorded on site provide highly limited opportunities for dormice. However, the deciduous and ancient woodland enclosing the site provides extensive optimal habitat to support dormice. Specifically, the woodland supports a diverse understorey and dense canopy layer suitable for nest construction, foraging, and commuting between resources. Although on site habitats are suboptimal given the absence of a continuous canopy layer and refuge from predation, dormice can sometimes be found commuting at ground level. Given that on-site habitats are enclosed by optimal dormice habitat, the presence of commuting dormice on site</p>	<p>The proposed development is mostly located within the existing building and bare ground curtilage of limited ecological value. However, approximately 0.004ha of amenity grassland and 0.003ha of introduced shrubs will be removed to facilitate the new extension.</p> <p>This limited vegetation removal is likely to be inconsequential for local dormouse populations. However, development activities could result in the death or injury of dormice if present and crossing the site.</p>	<p>Owing to the nature of the proposed development and the low potential for impacts to dormice, a precautionary working method is considered suitable to mitigate any impacts to dormice during development works. Precautionary working methods will be implemented during construction, including the following measures:</p> <ul style="list-style-type: none"> Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. 	<p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development to provide opportunities for dormice on site:</p> <ul style="list-style-type: none"> The planting of native shrubs at the woodland edge to enhance the structure of woodland edge habitat.

	for transient periods cannot be discounted, although considered unlikely.			
Hedgehog	<p>Habitats recorded on site are assessed to provide foraging and commuting opportunities for hedgehogs in the form of amenity grassland and introduced shrubs, albeit limited. However, no evidence indicating the presence of hedgehogs was recorded on site.</p> <p>Although no evidence indicating the presence of hedgehogs was recorded during the site survey, the site has excellent connectivity to optimal foraging, commuting, and refuge habitat for hedgehogs within adjacent deciduous and ancient woodland. The future presence of hedgehogs foraging and commuting on site for transient periods can therefore not be discounted.</p>	<p>The proposed development is mostly located within the existing building and bare ground curtilage of limited ecological value. However, approximately 0.004ha of amenity grassland and 0.003ha of introduced shrubs will be removed to facilitate the new extension.</p> <p>This limited vegetation removal is likely to be inconsequential for local hedgehogs populations. However, development activities could result in the death or injury of hedgehogs if present and crossing the site.</p>	<p>Owing to the nature of the proposed development and the low potential for impacts to hedgehogs, a precautionary working method is considered suitable to mitigate any impacts to hedgehogs during construction. Precautionary working methods will be implemented during construction, including the following measures:</p> <ul style="list-style-type: none"> Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use. Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. 	<p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development to provide opportunities for badgers on site:</p> <ul style="list-style-type: none"> Planting of fruiting trees and shrubs. Creation of wildflower grassland.
Reptiles	<p>Habitats recorded on site are assessed to provide foraging and commuting opportunities for reptiles in the form of amenity grassland and introduced shrubs, albeit limited. However, the enclosing woodland and transitional habitat between the site and woodland edge</p>	<p>The proposed development is mostly located within the existing building and bare ground curtilage of limited ecological value. However, approximately 0.004ha of amenity grassland and 0.003ha of introduced shrubs will be removed to facilitate the new extension.</p>	<p>Precautionary working methods when removing habitats of value to reptiles are considered necessary to reduce the risk of impacts, including the following measures:</p> <ul style="list-style-type: none"> A staged approach for introduced shrub clearance, whereby the vegetation will be trimmed initially to 15cm to allow any reptiles at ground 	<p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development to enhance the site for reptiles:</p> <ul style="list-style-type: none"> Native tree, hedgerow and shrub planting. Creation of wildflower grassland. Creation of a new pond.

	<p>provides good quality foraging, commuting, and basking opportunities for reptiles. Furthermore, the adjacent woodland is likely to provide extensive refuge opportunities for reptiles within areas of dense understorey and amongst log piles and within subterranean root networks. Although on site habitats are suboptimal to support reptiles for prolonged periods due to the absence of significant refuge opportunities, given that connectivity between the site and extensive suitable habitat is unperturbed by any barriers to dispersal, the presence of reptiles foraging or commuting for transient periods cannot be discounted.</p>	<p>This limited vegetation removal is likely to be inconsequential for local reptile populations. However, development works have potential to cause death or injury to reptiles if present.</p>	<p>level or below to disperse. The vegetation will then be cleared to ground level and must be maintained at this level for the duration of construction to deter reptiles from recolonising.</p> <ul style="list-style-type: none"> • The retaining wall will be removed carefully by hand to prevent injury to reptiles potentially seeking refuge within gaps in the wall. • Best practice pollution prevention measures will be implemented to minimise impacts to retained habitats that reptiles could use. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. • If any reptiles are found in the working area, they will be relocated to an area of suitable habitat not impacted by the proposed development. 	<ul style="list-style-type: none"> • Creation of hibernacula to provide enhanced refuge and over-wintering opportunities.
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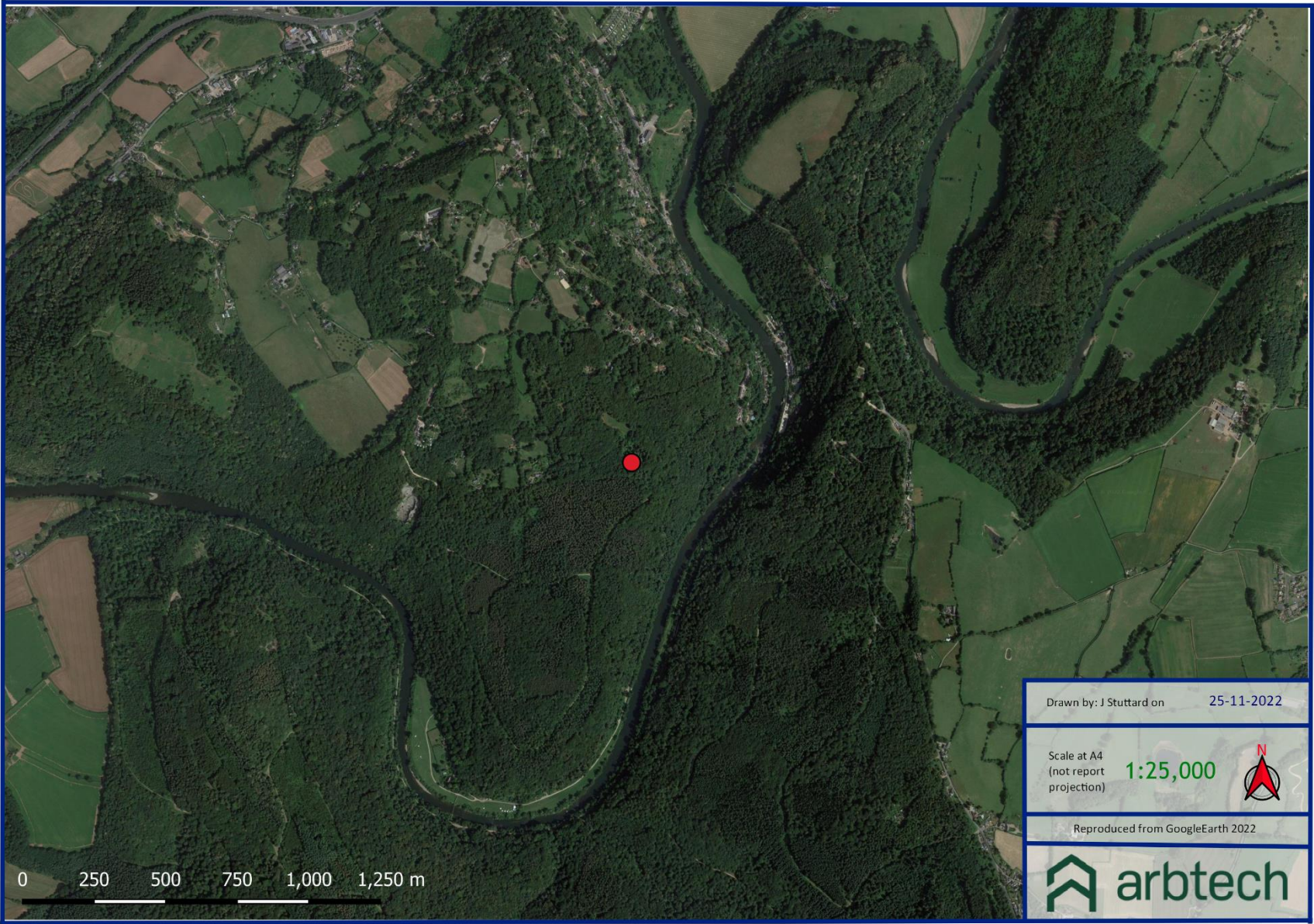
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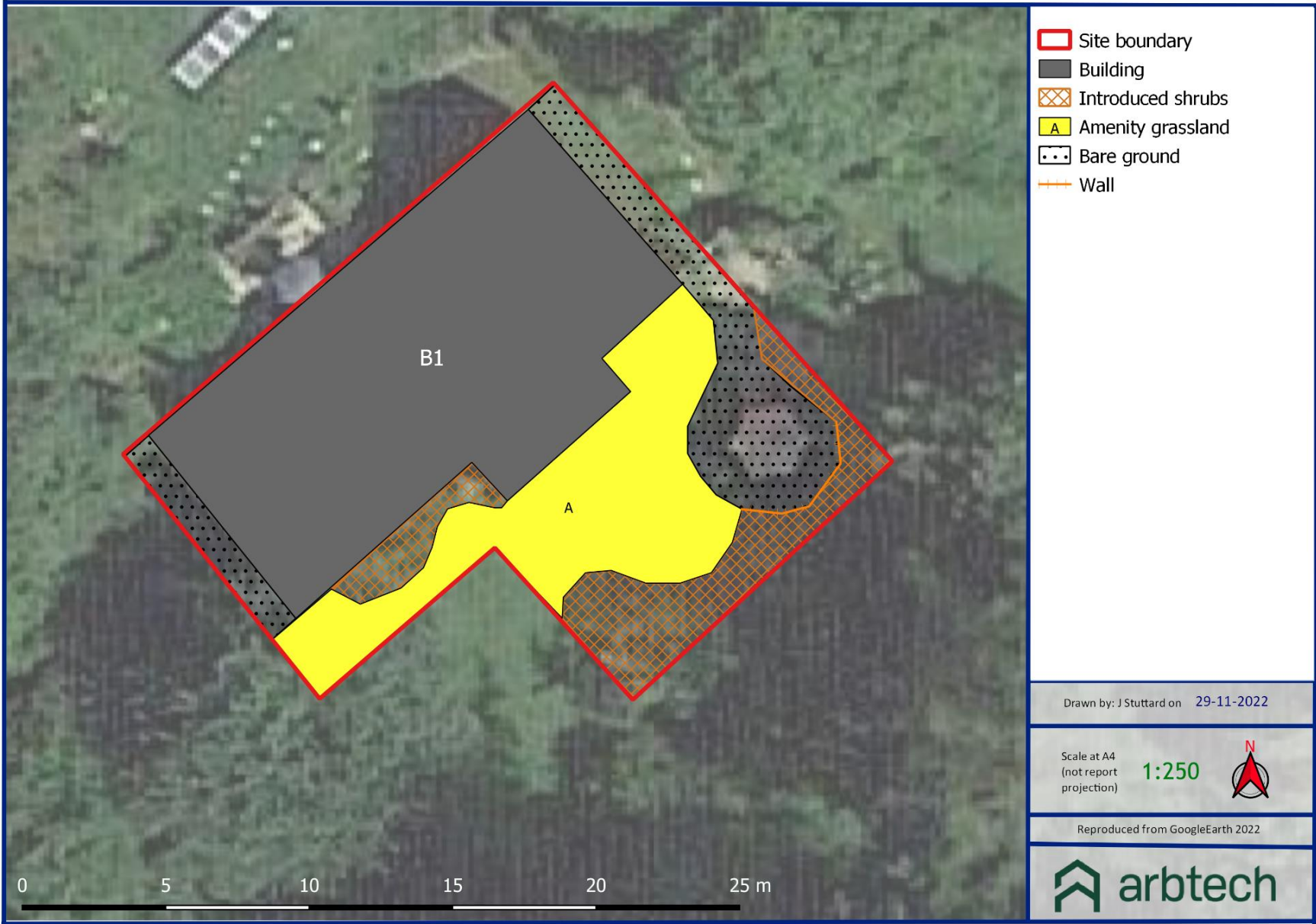
Appendix 1: Proposed Development Plan



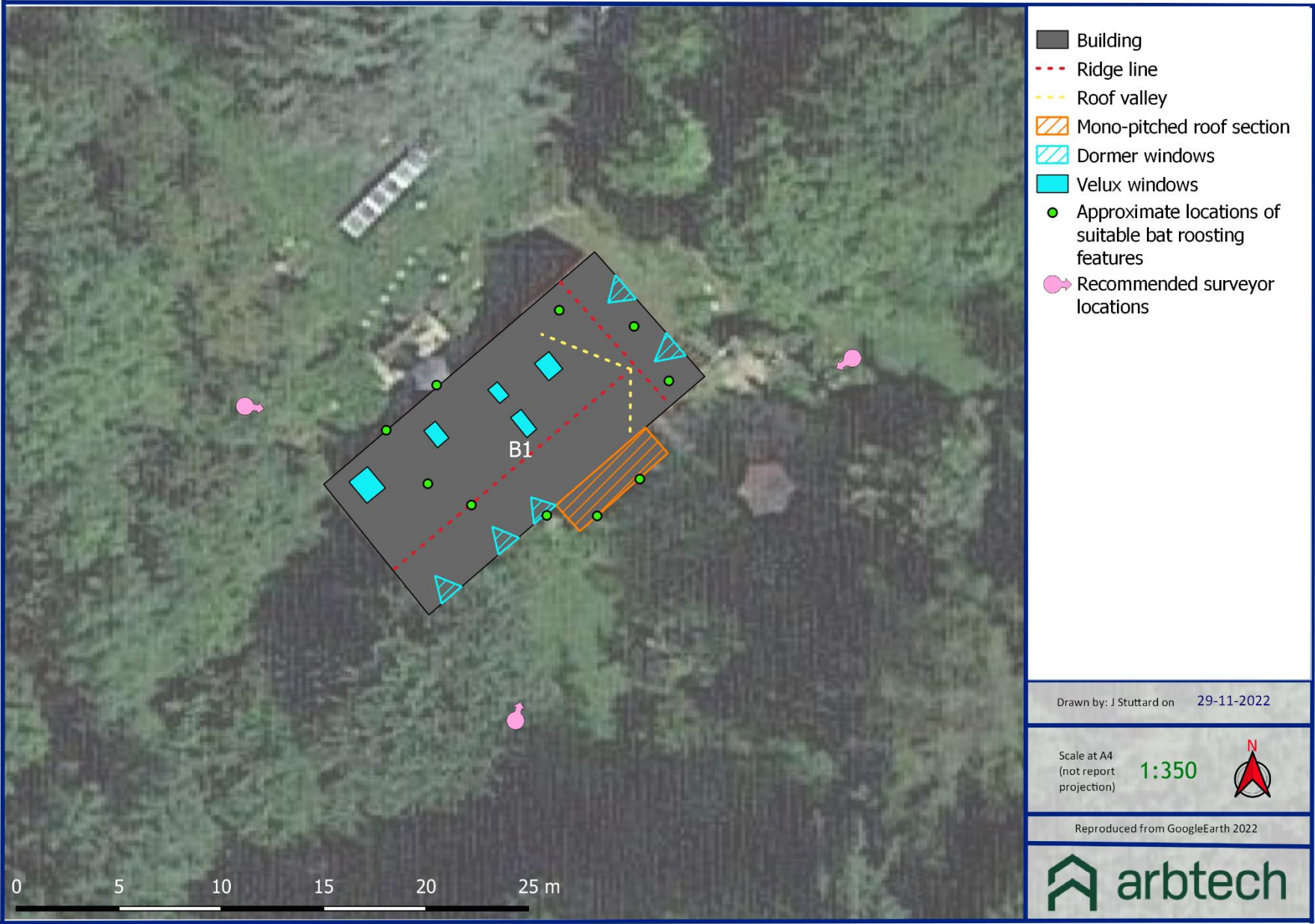
Appendix 2: Site Location Plan



Appendix 3: Habitat Survey Plan



Appendix 4: PRA Survey Plan



Appendix 5: Legislation and Planning Policy

LEGAL PROTECTION

The ***Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*** came into force when Britain left the European Union on 31st January 2020. It covered amendments relevant to this survey to:

Wildlife and Countryside Act 1981: England and Wales (x1 amendment)

Conservation of Habitats and Species Regulations 2017 (x29 amendments)

National and European Legislation Afforded to Habitats

International Statutory Designations

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are sites of European importance and are designated under the EC Habitats Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) and the EC Birds Directive 2009/147/EC on the conservation of wild birds respectively. Both form part of the wider Natura 2000 network across Europe.

Under the Habitats Directive Article 3 requires the establishment of a network of important conservation sites (SACs) across Europe. Over 1,000 animal and plant species, as well as 200 habitat types, listed in the directive's annexes are protected in various ways:

Annex II species (about 900): core areas of their habitat are designated as sites of Community importance (SCIs) and included in the Natura 2000 network. These sites must be managed in accordance with the ecological needs of the species.

Annex IV species (over 400, including many annex II species): a strict protection regime must be applied across their entire natural range within the EU, both within and outside Natura 2000 sites.

Annex V species (over 90): Member States must ensure that their exploitation and taking in the wild is compatible with maintaining them in a favourable conservation status. SPAs are classified under Article 2 of the Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds both for rare bird species (as listed on Annex I) and for important migratory species.

SACs and SPAs up to 12 nautical miles from the coast (i.e. 'territorial waters') are afforded protection in the UK under the Conservation of Habitats and Species Regulations 2017 which consolidate all amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994.

The Conservation of Offshore Marine Habitats and Species Regulations 2017 consolidate and update the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007. The 2017 Regulations introduce amendments which transfer responsibility for European nature conservation in the Welsh offshore region to Welsh Ministers. This gives Welsh Ministers similar powers in Welsh offshore waters to those currently exercised by Scottish Ministers in Scottish offshore waters. These regulations transpose into national law Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitats Directive), and elements of Council Directive

2009/147/EC on the conservation of wild birds (Wild Birds Directive) in the UK offshore area. They came into force on 30th November 2017. These regulations apply to the UK's offshore marine area which covers waters beyond 12 nautical miles, within British Fishery Limits and the seabed within the UK Continental Shelf Designated Area. The Conservation of Habitats and Species Regulations 2017 form the legal basis for the implementation of the Habitats and Birds Directives in terrestrial areas and territorial waters out to 12nm in England and Wales (including the inshore marine area) and to a limited extent in Scotland and Northern Ireland.

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and recognises the importance of wetland ecosystems in relation to global biodiversity conservation. The Convention refers to wetlands as “*areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres*”. However, they may also include riparian and coastal zones. Ramsar sites are statutorily protected under the Wildlife & Countryside Act 1981 (as amended 01.04.1996) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. The Government in England and Wales has issued policy statements which ensure that Ramsar sites are afforded the same protection as areas designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs). Further provisions for the protection and management of SSSIs have been introduced by the Nature Conservation (Scotland) Act 2004.

National Statutory Designations

Sites of Special Scientific Interest (SSSI) are designated by nature conservation agencies in order to conserve key flora, fauna, geological or physio-geographical features within the UK. The original designations were under the National Parks and Access to the Countryside Act 1949 but SSSIs were then re-designated under the Wildlife & Countryside Act 1981 (as amended). As well as reinforcing other national designations (including National Nature Reserves), the system also provides statutory protection for terrestrial and coastal sites which are important within the European Natura 2000 network and globally.

Local Statutory Designations

Local authorities in consultation with the relevant nature conservation agency can declare Local Nature Reserves (LNRs) under the National Parks and Access to the Countryside Act 1949. LNRs are designated for flora, fauna or geological interest and are managed locally to retain these features and provide research, education and recreational opportunities.

Non- Statutory Designations

All non-statutorily designated sites are referred to as Local Wildlife Sites (LWS) and can be designated by the local authority for supporting local conservation interest. Combined with statutory designation, these sites are considered within Local Development Frameworks under the Town and Country Planning system and are a material consideration during the determination of planning applications. The protection afforded to these sites varies depending on the local authority involved.

Regionally Important Geological Sites (RIGs) are the most important geological and geomorphological areas outside of statutory designations. These sites are also a material consideration during the determination of planning applications.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 are designed to protect 'important' countryside hedgerows. Importance is defined by whether the hedgerow (a) has existed for 30 years or more; or (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys without the permission of the local authority. Hedgerows 'within or marking the boundary of the curtilage of a dwelling-house' are excluded.

National and European Legislation Afforded to Species

The Habitats Directive

The EC Habitats Directive aims to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those species of European importance. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2017 (the Conservation Regulations) and the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended). This has been amended by the ***Conservation of Habitats and Species Regulations (amendment) (EU Exit) Regulations (2019)*** which continue the same provision for European protected species, licensing requirements and protected sites after the UK leaves the EU.

The following notes are relevant for all species protected under the EC Habitats Directive:

In the Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.

The Habitats Regulations do not define the act of 'migration' and, therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.

In order to obtain a European Protected Species Licence (EPSL), the application must demonstrate that it meets all of the following three 'tests':

- The action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment;

- There is no satisfactory alternative; and
- The action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

The Wildlife and Countryside Act (WCA) 1981 (as amended)

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1979, implemented 1982) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CROW) Act (2000).

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

Badgers

Badgers *Meles meles* are protected under The Protection of Badgers Act 1992 which makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger
- Cruelly ill-treat a badger, including use of tongs and digging
- Possess or control a dead badger or any part thereof
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett or any part thereof
- Intentionally or recklessly disturb a badger when it is occupying a badger sett
- Intentionally or recklessly cause a dog to enter a badger sett
- Sell or offers for sale, possesses or has under his control, a live badger

Effects on development works:

A development licence will be required from the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) for any development works likely to affect an active badger sett, or to disturb badgers whilst they occupy a sett. Guidance has been issued by the countryside agencies to define what would constitute a licensable activity. It is no possible to obtain a licence to translocate badgers.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the WCA. Among other things, this makes it an offence to:

- Intentionally (or recklessly in Scotland) kill, injure or take any wild bird
- Intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built
- Intentionally take or destroy an egg of any wild bird
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.
- Intentionally or recklessly obstruct or prevent any wild bird from using its nest (Scotland only)

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC) and are commonly referred to as “Schedule 1” birds.

This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional or reckless disturbance of dependent young of such a bird
- In Scotland only, intentional or reckless disturbance whilst lekking
- In Scotland only, intentional or reckless harassment

Effects on development works:

Works should be planned to avoid the possibility of killing or injuring any wild bird or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Schedule 1 birds are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Amphibians and Reptiles

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita*, pool frog *Pelophylax lessonae* and great crested newt *Triturus cristatus* receive full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

With the exception of the pool frog, these species are also listed on Schedule 5 of the WCA and they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of reptiles are protected solely under Schedule 5, Section 9(1) & (5) of the WCA, i.e. the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis*. It is prohibited to:

- Intentionally or recklessly kill or injure these species.

Effects on development works:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely to affect the breeding sites or resting places amphibian and reptile species protected under Habitats Regulations. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the WCA.

Water Voles

The water vole *Arvicola terrestris* is fully protected under Schedule 5 of the WCA. This makes it an offence to:

- Intentionally kill, injure or take (capture) water voles
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection
- Intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection

Effects on development works:

If development works are likely to affect habitats known to support water voles, the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) must be consulted. It must be shown that means by which the proposal can be re-designed to avoid contravening the legislation have been fully explored e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable, and measures to ensure minimal habitat loss. Conservation licences for the capture and translocation of water voles may be issued by the relevant countryside agency for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will then only be granted

to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of works.

Otters

Otters *Lutra lutra* are fully protected under the Conservation Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Otters are also currently protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely to affect otter breeding or resting places (often referred to as holts, couches or dens) or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, and rear young). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored

Bats

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. All bats)
- Deliberate disturbance of bat species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are afforded the following additional protection through the WCA as they are included on Schedule 5:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works are likely to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Hazel Dormice

Hazel dormice *Muscardinus avellanarius* are fully protected under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Dormice are also protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

Works which are liable to affect a dormice habitat or an operation which are likely to result in an illegal level of disturbance to the species will require a European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales (NB: Hazel Dormouse are entirely absent from Scotland)). The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

White Clawed Crayfish

There is a considerable amount of legislation in place in an attempt to protect the White-clawed crayfish *Austropotamobius pallipes*. This species is listed under the European Union's (EU) Habitat and Species Directive and is listed under Schedule 5 of the Wildlife and Countryside Act (1981). This makes it an offence to:

- Protected against intentional or reckless taking
- Protected against selling, offering or advertising for sale, possessing or transporting for the purpose of sale

It is also classified as Endangered in the IUCN Red List of Endangered Species. As a result of this and other relevant crayfish legislation such as the Prohibition of Keeping of Live Fish (Crayfish) Order 1996, a series of licences are needed for working with White-clawed and non-native crayfish. These are:

- A licence to handle crayfish (therefore survey work) in England
- A licence for the keeping of crayfish in England and Wales with an exemption for Signal crayfish (England).
- People in the post-code areas listed with crayfish present prior to 1996 do not need to apply for consent for crayfish already established. It does not, however, allow any new stocking of non-native crayfish into waterbodies. Consent for trapping of non-native crayfish for control or consumption is most likely to be granted in Thames and Anglian regions in the areas with "go area" postcodes.
- Harvesting of crayfish is prohibited in much of England and in any part of Scotland and Wales.

Effects on development works:

The relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will need to be consulted about development which could impact on a watercourse or wetland known to support white clawed crayfish. Conservation licences for the capture and translocation of crayfish can be issued if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of the works.

Wild Mammals (Protection Act) 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Legislation Afforded to Plants

With certain exceptions, all wild plants are protected under the WCA. This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits any person from:

- Intentionally (or recklessly in Scotland) picking, uprooting or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only)
- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof

- In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. These are species of European importance. Regulation 45 makes it an offence to:
- Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species
- Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

Effects on development works:

A European Protected Species Licence (EPSL) will be required from the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) for works which are likely to affect species of plants listed on Schedule 5 of the Conservation of Habitats and Species Regulations 2010. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Invasive Species

Part II of Schedule 9 of the WCA lists non-native invasive plant species for which it is a criminal offence in England and Wales to plant or cause to grow in the wild due to their impact on native wildlife. Species included (but not limited to):

- Japanese knotweed *Fallopia japonica*
- Giant hogweed *Heracleum mantegazzianum*
- Himalayan balsam *Impatiens glandulifera*

Effects on development works:

It is not an offence for plants listed in Part II of Schedule 9 of the WCA 1981 to be present on the development site, however, it is an offence to cause them to spread. Therefore, if any of the species are present on site and construction activities may result in further spread (e.g. earthworks, vehicle movements) then it will be necessary to design and implement appropriate mitigation prior to construction commencing.

Injurious weeds

Under the Weeds Act 1959 any landowner or occupier may be required prevent the spread of certain 'injurious weeds' including (but not limited to):

- Spear thistle *Cirsium vulgare*
- Creeping thistle *Cirsium arvense*
- Curled dock *Rumex crispus*
- Broad-leaved dock *Rumex obtusifolius*
- Common ragwort *Senecio jacobaea*

Effects on development works:

It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines and is not legally binding.

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework 2021

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; measurable gains in biodiversity in and around developments are incorporated; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

LOCAL PLANNING POLICY

Herefordshire Core Strategy 2011

The Herefordshire Core Strategy is the key document outlining the long-term spatial vision for the district. The Core Strategy includes policies which relate to biodiversity and nature conservation which are relevant to this report. Such policies are detailed below:

Policy LD2: Biodiversity and Geodiversity states:

“Development proposals should conserve, restore and enhance the biodiversity and geodiversity assets of Herefordshire, through the:

1. *Retention and protection of nature conservation sites and habitats, and important species in accordance with their status as follows:*
 - a. *Development that is likely to harm sites and species of European Importance will not be permitted;*

- b. *Development that would be liable to harm Sites of Special Scientific Interest or nationally protected species will only be permitted if the conservation status of their habitat or important physical features can be protected by conditions or other material considerations are sufficient to outweigh nature conservation considerations.*
 - c. *Development that would be liable to harm the nature conservation value of a site or species of local nature conservation interest will only be permitted if the importance of the development outweighs the local value of the site, habitat or physical feature that supports important species.*
 - d. *Development that will potentially reduce the coherence and effectiveness of the ecological network of sites will only be permitted where adequate compensatory measures are brought forward.*
2. *Restoration and enhancement of existing biodiversity and geodiversity features on site and connectivity to wider ecological networks; and*
 3. *Creation of new biodiversity features and wildlife habitats.*

Where appropriate the council will work with developers to agree a management strategy to ensure the protection of, and prevention of adverse impacts on, biodiversity and geodiversity features.”

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to ‘local populations’ of EPS and not individuals/site populations.