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# Preliminary Ecological Appraisal and Preliminary Roost Assessment

**Survey site**: Badgers Brook, London Road, Bolney, RH17 5PY

**Client**: MGR Horsham Ltd

**Survey date**: 22nd August 2024

**Project:**

This report is prepared to inform a planning application with the Mid Sussex District Council. The proposal is described as:

The demolition of the current buildings on site and the construction of six residential dwellings.

PEA survey methodology and legislation can be found in the Arbtech Supplement: **PEA Methodology and Legislation - 2024.**

PRA survey methodology and legislation can be found in the Arbtech Supplement: **PRA Methodology and Legislation - 2024.**

| The site survey was undertaken by Josie Cooper BSc (Accredited Agent on Natural England Bat licence number: 2019-41480-CLS-CL18. | | | | | |
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| Date of survey | Temperature (°C) | Humidity (%) | Cloud Cover (%) | Wind (km/h) | Rain |
| 22/08/2024 | 18 | 78 | 70 | 17 | None |

| **Ecological Survey Factor**<br><br>**Conclusion, Impact or Recommendations** | **Detailed using desk study and site survey (carried out under good weather conditions). Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.** |
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| **Habitats and plants (see habitat map in appendix 1, location plan in appendix 2, photos in appendix 3 and proposal plan in appendix 4). Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).** | |
| *Summary of Survey Findings*<br><br>**(***UKHab codes used)* | <u>Site location:</u><br>The survey site is centred on National Grid Reference TQ 26514 23586 and has an area of approximately 0.82ha. The site is located in the small village of Bolney. Black Forest is located to the east and Roughgrass Wood is located to the south of the site.<br><br><u>Offsite habitat:</u><br>Habitat surrounding the site includes woodland, grassland, and residential dwellings. In the wider landscape, agricultural land is also present. Deciduous woodland is present on site as well as adjacent to the east of the site. Additionally, ancient woodland and traditional orchards are present within a 2km radius from the site.<br><br><u>Onsite habitat:</u> |

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| | g4 10 32 33 510- Modified grassland with bare ground, line of trees, and scattered scrub and trees<br>Grassland is present throughout the site. The area of grassland to the east is grazed by horses and goats. The remaining grassland is maintained by mowing. The sward height of all grassland is below 10cm. Species present include perennial rye (D), creeping buttercup (A), purple dead nettle (F), selfheal (F), ragwort (O), dandelion (O), and field thistle (O). In the north-west area of grassland, cudweed is abundant. There are areas of bare ground scatted around the site, especially in the grazed field. Scattered trees include oak, larch, cherry, and ash. Tree lines area present at the southern and western boundaries and also running along the centre of the site. Species in the tree lines include lime (A), sycamore (A), silver birch (F), ash (F), oak (F), larch (O), and cherry (O). The scrub present was concentrated around the boundary of the site and includes nettles (A), green alkanet (F), bracken (F), elderberry (O), ivy (O), brambles (O), sedge (O), and doc (O).<br><br>u1e- Built linear features<br>Timber fencing is present at the boundary of the site and around the different sections of the site.<br><br>u1b5-Buildings<br>There is a single storey stable block present on the site.<br><br>u1b6 -Other developed land<br>A tarmac drive is present at the south-west corner of the site. Hard standing is also present near the buildings. |

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| | h2b- Non-native and ornamental hedgerow<br>A rhododendron (A) and cypress (A) hedgerow is present at the northern boundary of the site. The hedge is approximately 2m in height and 1m in width.<br><br>w1f7- Other Lowland mixed deciduous woodland<br>A woodland is located to the east of the site, and continuous offsite for several hectares. Species presents include sycamore, birch, ash, lime, and cherry. A dense understorey is present and consists of consists of elder, bracken, and nettle.<br><br>   |

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| *Foreseen Impacts* | The majority of the grassland on site will be lost during the proposed works. The grassland on site is of low ecological importance due to the short sward length.<br><br>Deciduous woodland is present on site. These will not directly be impacted by the proposed works, however, indirect effects such as pollution and damage form construction machinery may occur. |

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| *Recommendations* | Best practice measures to minimise the impact on the deciduous woodland must be implemented during construction. A Construction Environment Management Plan (CEMP) may be required for this. Heras fencing should be installed to prevent encroachment onto the deciduous woodland. |
| **Locality and Designated Sites** | |
| *Summary of Survey Findings* | There are no designated sites within a 2km radius of the site. |
| *Foreseen Impacts* | No impacts foreseen due to the distance from the designated sites and small size of the project. |
| *Recommendations* | None required. |
| **Invasive / Non-native species** | |
| *Summary of Survey Findings* | Rhododendron ponticum was identified on the site, which is listed as an invasive, non-native species under Schedule 9 of the Wildlife and Countryside Act 1981. |
| *Foreseen Impacts* | The proposed plans may disturb the rhododendron. |
| *Recommendations* | Rhododendron should be dug up, including roots, and disposed of in line with appropriate controlled waste measures. |
| **Invertebrates** | |
| *Summary of Survey Findings* | Scrub and other vegetation on site could provide good habitat value for invertebrates. |
| *Foreseen Impacts* | Modified grassland and an area of woodland may be removed. Due to the abundance of woodland and other habitats nearby, no impacts are anticipated. |
| *Recommendations* | No further surveys. |
| **Bats** | |
| *Summary of Survey Findings* | The site is surrounded by trees with woodland located in the wider landscapes, connected to the site by the hedgerows. Additionally, a freshwater pond is located to the east of the site. These habitats provide good connective, foraging, and roosting habitats for bats. |

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| | There are three EPSLs within a 2km radius of the site:<br>• The destruction of a brown long eared and common pipistrelle bat day and maternity roost. Located 1480m to the west.<br>• The destruction of a day roost and damage of a maternity roosts for Brandt's, brown long eared, and common pipistrelle bat. Located 1820m to the south-west.<br>• The destruction of a whiskered, brown long eared, and common pipistrelle bat day roost. Located 1960m to the west.<br><br>Tree lines, trees, and scrub on site can provide good foraging and commuting habitats for bats. Furthermore, bats could be roosting within trees or buildings on site. All buildings will be removed according to the proposed plans.<br><br>B1<br>B1 is a single storey portable structure with a curved green, sedum roof. The building is clad in timber with no gaps under the slats. The timber soffits and window and door frames appear in good condition with no gaps present. There is no loft space within this building.<br><br>This building was assessed as having negligible roosting value for bats due to the lack of roosting features. |

B2

B2 is a single storey stables with a gabled, bitumen felt lined roof. The doors, windows, and cladding are all timber, with no gaps or cracks present. The roofing appears in good condition with no gaps or tears present. There are gaps present at the eaves leading into the interior of the building. Additionally, the doors of the stables are often left open providing access to the interior of the building.

The interior roof is lined with timber sarking. Although doors are left open and gaps are present which lead into the interior, the space is not suitable for roosting bats due to the abundance of light, high levels of activity, and the exposure from external conditions due to the doors left open. Therefore, B1 was found to have negligible habitat value for roosting bats.




B3

B3 is a timber cabin with a with a gabled roof lined with bitumen flet. The timber slats have no gaps underneath. The bargeboards, soffits, and window and door frames appear in good condition with no gaps present. The bitumen felt has no tears or gaps present. There is no lift space present in this building.

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| | This building was assessed as having negligible roosting value for bats due to the lack of roosting features.<br>    <br>B4<br>B4 is an open sided shelter constructed of timber beams and a corrugated metal roof. The roof is single skinned so no crevices are present for roosting. The interior is exposed to external conditions and light creating unsuitable habitat for void dwelling bats. |

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| | This building was assessed as having negligible roosting value for bats due to the lack of roosting features and the abundance of light and exposure.<br><br>  |
| *Foreseen Impacts* | B1-4 will be removed according to the proposed plans, but bats are very unlikely to be roosting within the building or the tree and as such, there are not anticipated to be any impacts on roosting bats.<br><br>The proposed development may lead to an increase in the amount of lighting, which could disturb bats using the woodland to roost or commute. |
| *Recommendations* | A low impact lighting strategy will be adopted for the site during post-development which outlines the areas of the site that will be retained as dark corridors. Parameters can be found on the Bat Conservation Trust website:<br>https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting-2<br><br>*Enhancements:* |

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| | *To enhance roosting opportunities for bats, four bat boxes should be installed on the existing trees. It should be positioned at least 3–5 meters above ground level, in a sheltered location away from artificial lighting, and ideally facing south, southeast, or southwest to maximize exposure to sunlight.* |
| **Birds** | |
| *Summary of Survey Findings* | A bird nest was found on the easter elevation of B4. Furthermore, birds could use the scattered trees, woodland, and scrub for nesting. No habitat for schedule 1 birds was observed. |
| *Foreseen Impacts* | B4 will be removed according to the proposed plans.. This could result in the destruction or the disturbance and subsequent abandonment of active bird nests. |
| *Recommendations* | Any building or vegetation removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation should be undertaken immediately, by a qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.<br>Precautions should be taken with machinery and noise levels when working close to any retained nests so as not to disturb any nearby nesting birds during construction works. At least a 3-5m buffer should be created between any machinery and active nests until the young have fledged.<br><br>*Enhancements:*<br>*To enhance nesting opportunities for birds, four bird boxes should be installed on the existing trees. It should be positioned at least 2–4 meters above ground level, away from direct sunlight, prevailing winds, and artificial lighting.* |
| **Reptiles** | |

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| *Summary of Survey Findings* | Grassland on site provide suboptimal habitat for reptiles due to the lack of dense vegetation for refuge, although could be used for commuting. Scrub and woodland will provide good habitat for refuge for reptiles. There is good habitat to the wider landscape due woodland and grassland, and connectivity in the area is good. No EPSLs for reptiles are present within a 2km radius of the site. |
| *Foreseen Impacts* | Grassland may be removed from the site. Due to the short sward height of the grassland, and the presence of more extensive woodland nearby, the impact on reptiles is expected to be minimal. A low risk that a low number of reptiles could be present in the vicinity of the works is still present. |
| *Recommendations* | A precautionary working method will be implemented for widespread reptiles during construction, including the following measures:<br>• A staged approach will be adopted for woodland vegetation clearance, whereby the vegetation will be strimmed to 15cm and left overnight to allow any reptiles to disperse. The vegetation can then be cleared to ground level and must be maintained at this level for the duration of construction to deter reptiles from the working area.<br>• Other vegetation will be maintained at a sward length of less than 10cm to discourage reptiles.<br>• Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.<br>• Best practice pollution prevention measures will be implemented to minimise impacts to nearby habitats.<br>• Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. |

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| | • If any reptiles are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.<br>In the unlikely event that a reptile is identified, works must cease and advise must be sought from a suitably qualified ecologist.<br><br>*Enhancements:*<br>*To enhance refuge opportunities for reptiles, a hibernaculum could be constructed on-site to provide safe overwintering habitat. Additionally, planting scrub would create valuable refuge areas for reptiles.* |
| **Amphibians** | |
| *Summary of Survey Findings* | There are three ponds present within a 500m radius of the site. Four ponds are located to the east of the site and are disconnected by the A23. The remaining ponds are disconnected from the site by London Road. The closest pond to the site is located 120m to the north-west.<br><br>In the surrounding area, woodland, grassland, and hedgerows provide good habitat for GCN and other common amphibians. Onsite, the scrub and woodland could be used by GCN for refuge. The grassland provides suboptimal habitat due to the short sward height of the site, although could be used for commuting. |
| *Foreseen Impacts* | No optimal habitat (woodland and scrub) will be removed from the site during construction. Additionally, all ponds are disconnected from the site by busy kerbed roads. No GCN are likely to be on site, however, a low risk of harm to common amphibians exists. |
| *Recommendations* | A precautionary working method as laid out for reptiles when prevent harm to amphibians. |

| **Badger** | |
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| *Summary of Survey Findings* | A single badger hole was present at the northern elevation of the site. The hole had leaf litter present around the entrance. Badgers often keep holes clear, so this indicated a lack of use of the hole. However, badgers often return to holes occasionally.<br>  <br>Grassland, woodland, and scrub on site can provide good foraging and commuting habitat for badgers. There is good connectivity to the wider landscape due to hedgerows, grassland, and woodland. |
| *Foreseen Impacts* | The proposed development will occur nearby to the sett entrance. Works could result in the disturbance or damage of the badger sett on the site and could kill or injure any badgers present. |
| *Recommendations* | Badger surveys will be required to characterise the sett types present and the usage of the site by badgers. This will comprise the deployment or wildlife cameras over a period of 3-4 weeks and such surveys can be undertaken throughout the year, in accordance with current survey guidelines (Harris et al, 1989). Disturbance, damage or destruction of active badger setts will require a badger development licence. |
| **Riparian animals** | |

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| *Summary of Survey Findings* | A stream runs along the eastern boundary of the site. This stream is shallow and narrow, creating unsuitable refuge habitat for otters, however, this species may use the stream for commuting. The stream may be used by water voles, as the steep sides provide good habitat for burrowing. Woodland surrounding the stream may be used by both otters and water voles to forage. |
| *Foreseen Impacts* | No woodland will be removed according to the proposed plans and construction will occur at least 10m away from the stream. Therefore, no impacts are anticipated on water vole as a result of the proposed development. |
| *Recommendations* | None. |
| **Hazel dormouse** | |
| *Summary of Survey Findings* | The hedgerow provides suboptimal habitat for dormouse due to the lack of fruiting plants. The woodland on site provides good habitat due to the presence of a good scrub layer. For isolated habitats in the UK, research indicates that dormice require 20ha of woodland habitat to support a viable population (Bright *et al.* 1994). There is 20ha of woodland connected to the site. |
| *Foreseen Impacts* | Woodland will not be removed from the site. No impacts are anticipated on hazel dormice as a result of the proposed development. |
| *Recommendations* | None. |
| **Other e.g. hedgehog** | |
| *Summary of Survey Findings* | Grassland, woodland, and scrub on site can provide good foraging and commuting habitat for hedgehogs. There is good connectivity to the wider landscape due to hedgerows, grassland, and grassland. |

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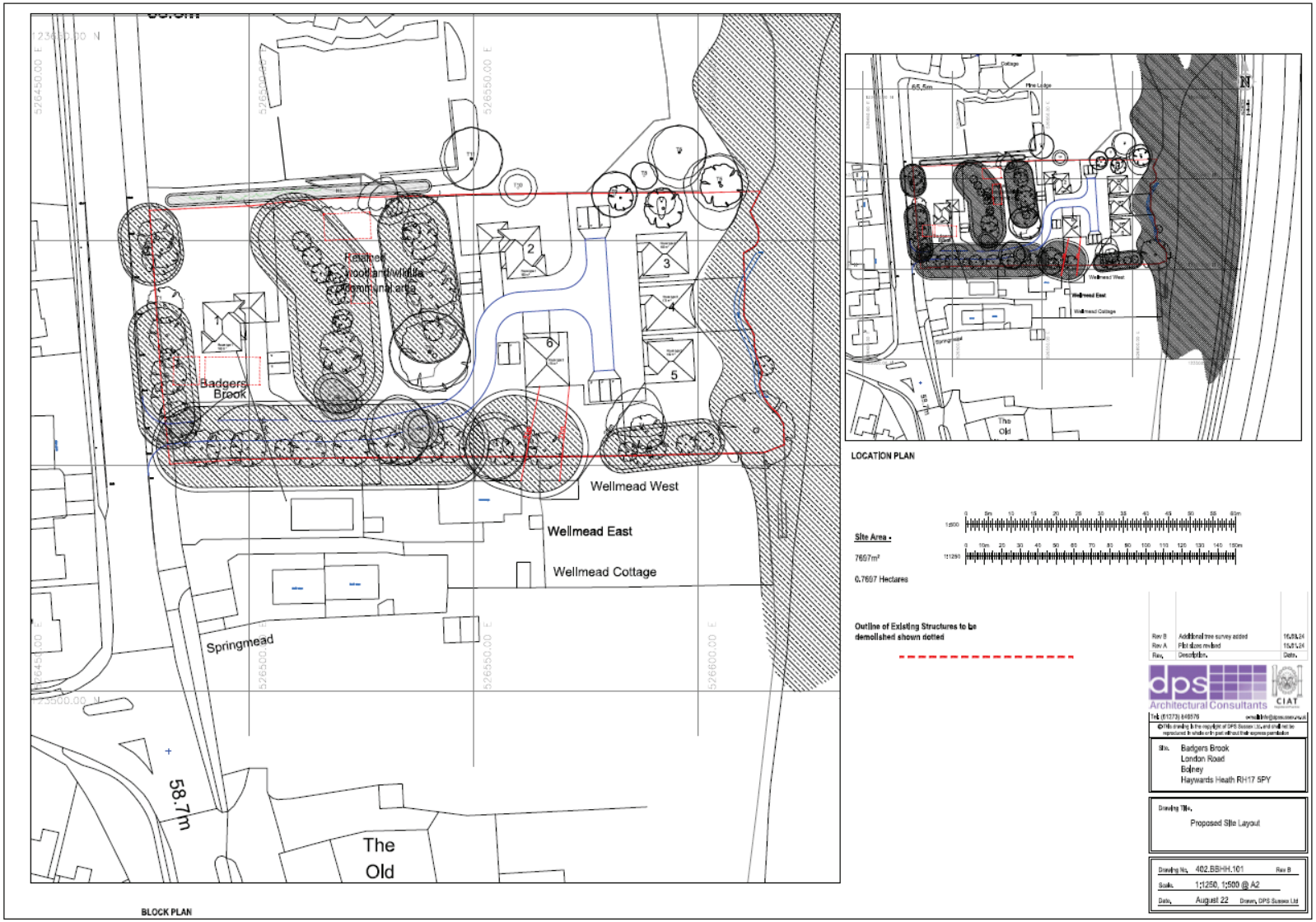
| *Foreseen Impacts* | A grassland will be removed during construction. The loss of such habitat is likely to be inconsequential to local hedgehog populations owing to the small area and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present. |
| *Recommendations* | The precautionary working method used for badgers will help protect hedgehogs. |

## Appendix 1: Habitat map

## Appendix 2: Location map

## Appendix 3: Proposed plans



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