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# Preliminary Ecological Appraisal

**Survey site**:

Land to the east of Wepham Close, Hayes, UB4 9YE

**Client**:

Chris Gwilliam

**Survey date**:

22/07/2024

**Project:**

This report is prepared to inform a planning application with the London Borough of Hillingdon. The proposal is described as:

"Construction of 5 new-build residential dwellings, each with private garden space, private entrances, and dedicated refuse storage, including shared communal amenities and secure cycle parking facilities." (hereafter referred to as "the proposed development").

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

| The site survey was undertaken by Dr James Fielding PhD BA (hons) PGcert (merit), Accredited Agent on Natural England Bat Licence Number: 2022-10412-CL17-BAT, and Carly Preen BSc (Hons) MSc. | | | | | |
|---|---|---|---|---|---|
| Date of survey | Temperature (°C) | Humidity (%) | Cloud Cover (%) | Wind (mph) | Rain |
| 22/07/2024 | 23 | 69 | 60 | 15 | 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**<br>**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)* | The site is centred on National Grid Reference: TQ11968147 and has an area of approximately 0.13ha. The sits on the outside perimeter of a housing estate, surrounded on three sides by semi-detached properties with associated gardens. To the southwest is an area of open grassland bordered by a small woodland on its east side. The soil underfoot is soilscape 22, which is a low fertility soil with high groundwaters, normally producing wet, acid grasslands. After referencing the Botanical values map, the area is considered to have moderate botanical value. There are no notable plant species on site. The site also sits between and in close proximity to two Bug life important invertebrate areas, however again no notable species, or large populations were found on site.<br><br>The wider landscape is predominantly large housing estates, with fragmented greenspaces interspersed. To the immediate south and west there are open grasslands with associated priority habitat comprising of ancient broadleaf woodland. The woodlands, greenspaces and associated green corridors are fragmented to the west by the A312, and |

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| | the south by the A4020. The region is isolated within the larger landscape, which may prevent dispersal of species to other regions. This could indicate that this area is valuable to local populations of animals that cannot migrate to other regions.<br><br>Surrounding the site there are a number of bodies of water including a large lake ~95m northeast; There is also Yeading brook ~387m south, and the Grand Union Canal ~442m southeast. There is good access to each of these however there is high traffic on the canal and associated docklands which likely will reduce the suitability for wildlife populations. There are two LNR's to the Northeast, fragmented from the site by the A132. The closest is Yeading Meadows.<br><br>Other Lowland Acid Grassland with scattered scrub [g1d.10]<br><br>The survey site is species poor, dominated by scrub and nettle growing over the ground and rubble. There is frequent bramble, and small areas of bindweed sp.; buddleia; cotoneaster; rose sp.; willowherb; herb robert; herb william, and bastard cabbage. There is also frequent Bryophyte presence on the short grass and bare ground, and pockets of large sedges in a centralised location on site.<br><br>Scattered Trees [32]<br>A large birch sapling, and another large unidentified broad-leaf sapling, is found along the northern boundary of the site, two small mature crab-apple sp. are located towards the centre of the site.<br><br>Built linear features [u1e] |

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| | The north, east and west sides of the site are surrounded by wood panelled fencing in various conditions. On the south side there is a porous metal fence line, leading into a broadleaf woodland, and open green space.<br><br><u>Hibernacula</u><br>There is a substantial amount of debris on the land, in particular discarded wooden panels and rubble piles which could provide refuge and hibernacula to reptile and amphibian species.<br><br><u>Dead Wood</u><br>A remanence of a felled tree remains on the northern boundary of the site. The tree is well decayed and have populations of saprophytes growing. |
| *Foreseen Impacts* | The habitats on site are widespread and not notable, however green spaces and woodland habitats immediately adjacent need consideration with regards to pollution levels, and these habitats are part of two local SINCs. The development is likely to lead to an overall loss of biodiversity, and thus on and off-site mitigation methods will be required. |
| *Recommendations* | Best practice measures to minimise the possibility of pollution affecting the nearby priority woodlands and SINCs must be implemented during construction.<br><br>A biodiversity net gain report, and potential off-site mitigation through the purchase of BNG credits, will be required for this site. |
| **Locality and Designated Sites** | |

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| *Summary of Survey Findings* | The site is not subject to any designation and no national network sites (SAC, SPA, Ramsar) are located within 2.5km.<br><br>*There are 2 statutory sites within 2.5km*<br><br>• Yeadling Brook Meadows: Ref: 1009861. LNR. ~2162m<br>• Yeading Meadows: Ref: 1009255. LNR. ~1478m<br><br>*The Site also sits within an LPA designated SSSI impact zone.*<br><br>There are 16 Sites of Importance for Nature Conservation (SINCS) within 2km of the site. Of these, the site is located in close proximity to HiBl11 Yeading Brook, Minet Country Park and Hitherbroom Park and M006 London Canals, with some connectivity of habitat to these SINCS. |
| *Foreseen Impacts* | The Impact Risk Zones for Sites of Special Scientific Interest (SSSI IRZs) indicate that at the location selected, the proposed development is unlikely to have a harmful effect on terrestrial Sites of Special Scientific Interest (SSSIs) and the Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites that they underpin.<br><br>Habitats adjacent to the site have functional connectivity to two local SINCs (HiBl11 Yeading Brook, Minet Country Park and Hitherbroom Park and M006 London Canals) and care should be taken to prevent pollution and debris from the construction impacting these sites. |
| *Recommendations* | Best practice measures to minimise the possibility of pollution affecting the nearby priority woodlands and SINCs must be implemented during construction. |
| **Invasive / Non-native species** | |

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| *Summary of Survey Findings* | There is Buddleia on site, which is considered invasive in this region of the country due to the damage it can inflict on buildings. It is listed as an invasive non-native species, but not listed on Scheule 9 of the Wildlife and Countryside Act 1981. |
| *Foreseen Impacts* | N/A |
| *Recommendations* | The plant must be removed with immediate effect. Care should be taken during development that it does not cause its spread. |
| **Invertebrates** | |
| *Summary of Survey Findings* | The PEA assesses the sites habitat value for protected and otherwise Important Species of invertebrate. These include; Schedule 8 Protected Species Wildlife & Countryside Act, 1981 (as amended) and Schedule 5 Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019), Species of Principal Importance s.41 NERC Act 2006 (England), endemic, red listed, nationally rare/scarce species, species at the edge of their range, species on local biodiversity and rare lists and common species present on sites containing a large proportion of the species local or regional population.<br><br>The site is not located within a Buglife Important Invertebrate zone but it does sit just outside the boundary of two, so some overlap may be a possibility.<br>Informed by Natural England (2006/7) guidelines , the site is assigned the following preliminary value for invertebrates. An analysis of biological records data within 2km of the site indicates some local protected species are present within the local area, including stag beetles. This will elevate the value of the deadwood and other saprophytic habitat on site.<br><br>**Moderate Habitat Value** |

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| | The site provides multiple features of habitat value for invertebrates and may be of importance for both Important and common species and assemblages, alongside any higher taxa dependent upon the invertebrate foraging resource.<br><br>Features include:<br>• Scrub and scrub grassland.<br>• Wetland – Wet grassland and high surface water<br>• Bramble in full sun<br>• Well-developed transitional zones between habitats on the site and the wider landscape<br>• Mature trees immediately adjacent to the site, via a permeable membrane.<br>• Decaying timber<br><br>The site was assessed in July, in optimal weather conditions. No rare species were discovered, nor a richness in any assemblage. Various species of butterfly's were noted on site including the cabbage white. |
| *Foreseen Impacts* | Near complete habitat loss is foreseen given the plans for the site, however any retained or created habitat is likely to be managed appropriately over 30 years.<br>The development will result in a significant loss of invertebrate habitat, in particular the removal of deadwood on site may have an impact on important saproxylic species.<br>The development is anticipated to have an impact upon invertebrates in the short term however future management/habitat creation is likely to result in net gains for invertebrate biodiversity. |

<table>
<tr><td>Recommendations</td><td>Sufficient habitat of invertebrate value will be retained or replaced to maintain the sites current populations. Long-term management, which includes relocating deadwood, and planting schemes are anticipated to retain and enhance the invertebrate value of the site.<br>Dead wood on site should be preserved where possible or utilized alongside invertebrate targeted planting to create new invertebrate receptor sites. The addition of green roofs to this site would also help promote BNG, provide valuable habitat for invertebrates, and resources for birds and bats.</td></tr>
<tr><td colspan="2">Bats</td></tr>
<tr><td>Summary of Survey Findings</td><td>There are no bat roosting habitats on site.<br>Bats could use the edges of the surrounding wooded areas for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site and commuting around the area. The wider landscape is a mosaic of open grassland and broadleaf woodland, with pockets of water interspersed. This is valuable habitat to foraging bats. Green corridors in the region border the site on the south making it a possibility that bats will be utilising this area for feeding.<br><br>There is one bat European Protected Species License (EPSL) within 4km.
<table>
<tr><td>Reference</td><td>Distance</td><td>Details</td></tr>
<tr><td>2018-33297-EPS-NSIP1-1</td><td>~2012m</td><td>Common pipistrelle and Soprano pipistrelle. Allowing for the destruction of a resting place</td></tr>
</table>
There are a handful bat records within 2km of the site, typically featuring common species (common pipistrelle, soprano pipistrelle, brown long eared bats) and a single daubenton’s myotis record.</td></tr>
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| *Foreseen Impacts* | The proposed development may lead to an increase in the amount of current lighting of surrounding habitats or the retained building without mitigation. This may disturb commuting bats. |
| *Recommendations* | No further surveys are required.<br><br>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: https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting-2 |
| **Birds** | |
| *Summary of Survey Findings* | No evidence of nesting birds was found on site during the surveys; however, birds could use the adjacent overhanging trees for nesting. The site is priority habitat for countryside stewardship Lapwing targeting. A single magpie was observed on site, and there is evidence that birds are feeding from the bramble on site.<br>No sufficient habitat for schedule 1 birds was observed. |
| *Foreseen Impacts* | The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests. |
| *Recommendations* | Any tree cutting of the overhanging trees 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<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. |
| **Reptiles** | |

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| *Summary of Survey Findings* | Local biological records data features 6 records of slow-worms, 1 record of grass snake and 1 record of common lizard. The site contains features of value to reptiles and is well connected to other suitable habitats within the landscape,<br>Suitable on-site habitats Include:<br>• Scrub and grassland,<br>• Suburban wasteland,<br>• Woodland edge,<br>• Hibernacula,<br>The wider landscape consists of woodland bordering onto grassland, which is ideal habitat for reptiles. Further, reptiles will also utilise the banks of the nearby waterbodies to bask. There is good connectivity between the local landscape and the site, and a permeable membrane allows passage freely. If there are reptiles on site the numbers are likely to be low, given the higher value habitat surrounding, however their presence cannot be ruled out. |
| *Foreseen Impacts* | Although a small area of suitable habitat is being removed as part of the development, there is a low risk that a low number of reptiles could be present in the vicinity of the works. These could be injured or killed without mitigation. The numbers of reptiles on site are likely to be low and a series of reptile surveys are considered to be disproportionate to the risk. |
| *Recommendations* | *A precautionary working method will be implemented for widespread reptiles during construction, including the following measures:*<br>• *Vegetation will be maintained at a short sward (5cm) to discourage reptiles.*<br>• *Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.* |

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| | • *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.*<br>• *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>The site could be enhanced for reptiles post development with the inclusion of log piles and a compost heap. |
| **Amphibians** | |
| *Summary of Survey Findings* | The likelihood that GCN and other migratory amphibians may be present in habitats on site, or in connected commuting habitat is increased by the fact there are two ponds within 500m. One pond is situated within 250m, at ~100m northeast of the site. This increases the likelihood that higher density populations may be present on site.<br><br>The ponds both have good connectivity to the site which will increase the likelihood of dispersal towards the site. However the ponds are large, likely have a substantial fish population, and the further of the two appear heavily trafficked with boats, which make them less likely to harbour newt populations. Moreover these ponds are separated from the site by a row of urban houses with impermeable garden fencing. |

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<tr><td></td><td>Yeading brook is located~387m south, and the Grand Union Canal ~442m southeast. Dispersal between each of these sites is possible via a network of ancient, broadleaf woodlands which permeate the local area.<br><br>An analysis of biological records data within 2km of the site shows 2 records of Common toad and 13 of common frogs, and no records of great crested newts. However, there are 2 great crested newt European Protected Species License (EPSL) within 2km. Both of these are at a single location on the 2km boundary.<br><br>
<table>
<tr><td>Reference</td><td>Distance</td><td>Details</td></tr>
<tr><td>2018-35524-EPS-MIT-1</td><td>2km</td><td>Allowing for the damage and destruction of a resting place</td></tr>
<tr><td>2018-34648-EPS-AD2-2</td><td>2km</td><td>Allowing for the damage and destruction of a resting place</td></tr>
</table>
<br>The site has the potential to support hibernating amphibian populations, however the risk is considered low given greater suitability of habitat in close proximity.</td></tr>
<tr><td>Foreseen Impacts</td><td>The site will be cleared prior to construction, removing all on-site habitats. The loss of such habitats is unlikely to have adverse effects on local amphibian populations owing to the presence of similar well-connected habitat of a size capable of supporting a viable population. However, site clearance could result in the death or injury of common amphibians and GCN if present. The proposed development will not result in the loss of any ponds.</td></tr>
<tr><td>Recommendations</td><td>Given the size and limited likely impacts of the proposed development, further surveys are considered disproportionate. Instead, a precautionary working method during construction is considered appropriate to ensure</td></tr>
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| | no amphibians (or other herptiles) are unduly harmed and no offence is caused. This will include the following measures:<br><br>• Site clearance will be undertaken outside of the key amphibian hibernation season (October to February) and the key migration period of February to March. Works are best timed during the aquatic phase when they are likely to be in breeding ponds (April – June).<br>• A toolbox talk will be given to contractors by an ecologist, either in person or via dissemination of online content regarding the possible presence of amphibians, including great crested newt, at the site.<br>• Heras or a similar appropriate fencing will be erected around the working area to prevent encroachment into areas where amphibians could be present.<br>• A pre-commencement inspection of the site will be undertaken for amphibians. Such an inspection will be carried out each morning to ensure no animal has become trapped during the intervening evening.<br>• A staged approach will be adopted for vegetation clearance, whereby the vegetation will be cut to 15cm and left overnight to allow any amphibians 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 amphibians from the working area.<br>• Any rubble piles will be dismantled by hand and debris and brash will be stored on pallets away from site boundaries or retained vegetation or removed from the site to prevent amphibians from utilising these areas.<br>• Best practice pollution and habitat damage prevention measures will be implemented to minimise impacts to retained habitats that amphibians could use.<br>• Any chemicals or pollutants used or created by the development must be stored and disposed of correctly according to COSHH regulations. |

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| | • All trenches will be closed at the end of the day or left with a ramp to enable amphibians to escape. They will be checked prior to closing.<br>• If any common amphibians are found in the working area these should be encouraged to move away of their own volition. If for any reason they are unable to do so, they will be moved by gloved hand to a bucket or other suitable container and transported to vegetated area away from disturbance.<br><br>In the unlikely event that a great crested newt or other protected amphibian is identified, works must cease and advice must be sought from a suitably qualified ecologist. |
| **Badger** | |
| *Summary of Survey Findings* | There are no records of badgers within 2km of the site, although this does not rule out their possible presence. The external perimeter is considered insufficient to allow badgers access, however their presence cannot be ruled out. Remnants of a large vertebrate was found on site, and whilst the species cannot be confirmed there is the likelihood that it could be from a large badger or deer species.<br>*There was no evidence of badgers found on site.*<br>No evidence of badgers was found on or within 30m of the site. |
| *Foreseen Impacts* | There is a low risk that badgers may utilise this site and be in the vicinity of the works. These could be injured or killed without mitigation. |
| *Recommendations* | Basic precautionary mitigation during works is recommended:<br>• Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.<br>• The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to habitats which badgers could use. South boundary. |

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| | • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.<br>In the unlikely event that a badger sett is identified within 30m, works must cease and advise must be sought from a suitably qualified ecologist. |
| **Riparian animals** | |
| *Summary of Survey Findings* | **Water vole**<br>A single water vole record is present within 2km of the site, >10 years old, and at a location far removed from the development area. The is no watercourse on site and the site is far enough removed to be confident that there are no burrows in the region. There was no evidence of water voles found, and whilst the connectivity to the water sources is good, the habitat is of poor quality and unlikely to attract water vole.<br><br>**Water shrew**<br>There is no evidence of water shrew on site, and the bodies of water and suitable habitat is such removed, that the likelihood of water shrew on site is low.<br><br>**Otter**<br>There are no records of otters within 2km of the site. There are a number of bodies of water in close proximity with connectivity to site. There were a number of shells identified on site which may indicate the presence of Otters; however the evidence is circumstantial, and there is a lack of additional evidence to support this. The distance from the nearest water course is further than an otter would normally construct a holt and as such it is considered unlikely that there should be one on site. The likelihood that otters frequent this site is low but not impossible. |

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| *Foreseen Impacts* | There is a low risk that otters may utilise this site and be in the vicinity of the works. These could be injured or killed without mitigation. |
| *Recommendations* | Owing to the nature of the proposed development and the low likelihood of impacts to otter, further otter surveys are considered to be disproportionate to the risk.<br>A precautionary working method will be implemented during construction, including the following measures:<br>• A toolbox talk will be given to contractors regarding the possible presence of otter at the site.<br>• An appropriate form of fencing (e.g Heras) will be erected around the working area to prevent encroachment within 8m of the watercourse.<br>• Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.<br>• Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.<br>In the unlikely event that an otter holt or den is identified, works must cease and advice must be sought from a suitably qualified ecologist. |
| **Hazel dormouse** | |
| *Summary of Survey Findings* | Dormice typically require a three-dimensional habitat structure permitting them to move around the landscape without coming to ground or crossing open space. Flower, berry and nut producing vegetation is required to provide foraging opportunities. Typical suitable habitats include dense, tall, wide well-connected native hedgerows, dense bramble stands, mixed scrub and woodland with a dense understory of bramble/recent coppice. They will however come to ground to hibernate in leaf litter and amongst cavities associated with tree buttresses.<br>The site is connected to a woodland to the south and close to ancient woodland to the east, which has examples of three-dimensional habitat, however the site provides no suitable habitat for dormice and whilst it does have connectivity to the wider landscape, the site is not considered suitable for dormice given its lack of hedgerows, |

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| | general lack of cover, and small amounts of bramble scrub, however their presence is not to be ruled out given the nature of the surrounding woodland and presence of suitable foraging materials on site.<br><br>There are no dormouse European Protected Species License (EPSL) within 4km, and the biological records data within 2km of the site contains no records of hazel dormice. |
| *Foreseen Impacts* | The habitat losses proposed as part of the development are minor and will not lead to any significant reduction in availability of suitable habitat or fragmentation of the landscape. As such they will have a negligible impact upon the conservation status of dormice in this area. However, any dormice present during the works could be injured or killed. |
| *Recommendations* | Owing to the small scale of the proposed development and the acceptably low risk of impacts to dormice, further surveys are considered disproportionate. A precautionary working method will be implemented during construction, including the following measures:<br>• *A toolbox talk will be given to contractors regarding the possible presence of dormice at the site.*<br>• *Heras, or another appropriate form of fencing will be erected around the working area to prevent encroachment into areas where dormice could be present.*<br><br>*In the unlikely event that a dormouse or evidence of dormouse is identified, works must cease, and advice must be sought from a suitably qualified ecologist.* |
| **Other e.g. hedgehog** | |
| *Summary of Survey Findings* | There are 26 records of hedgehogs within 2km of the site. Vegetation onsite provides foraging and commuting opportunities for hedgehogs, with woodland habitat nearby. There were hedgehog droppings found on site. |

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| *Foreseen Impacts* | Vegetation will be removed during construction. The loss of such habitat is likely to be inconsequential to local hedgehog populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present. |
| *Recommendations* | Similar to the badgers, a precautionary working method will be implemented during construction, including the following measures:<br>• Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.<br>• 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.<br>• Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.<br>If any hedgehogs 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. |

## Appendix 1: Habitat map

## Appendix 2: Location map

## Appendix 3: Proposed plan

Not available at the time of writing

Legal



| Version control | | | |
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| **Status** | **Issue** | **Name** | **Date** |
| Draft | 0.1 | Carly Preen BSc (Hons) MSc, Assistant Ecologist | 25/07/24 |
| QC | 0.2 | James Fielding PhD BA (Hons) PGcert (merit) Consultant Ecologist | 25/07/24 |
| Final | 1.0 | James Fielding PhD BA (Hons) PGcert (merit) Consultant Ecologist | 26/07/24 |
| Update | 2.0 | James Fielding PhD BA (Hons) PGcert (merit) Consultant Ecologist | 30/08/24 |
| Updated | 3 | Georgina Rennie BSc (Hons), MSc. Consultant Ecologist. | 12/01/2026 |