

## PRELIMINARY ECOLOGICAL APPRAISAL (PEA)

RIVERVIEW MANOR (FORMALLY COSY KENNELS),  
SCOURS LANE, READING RG30 6AX  
for  
MR M COFFEY

### RESULT INDICATOR OF THIS SURVEY

- **RED.** Do not proceed. Without major modification this project will have significant adverse ecological & biodiversity impacts. It will not be sustainable or compliant with current legislation and approved planning policy. Discussion is required with the Planning Authority.
- **AMBER.** Caution. The proposals as conceived would have substantial negative impacts and cannot achieve “No Net Loss to Biodiversity” and “Biodiversity Net Gain” outcomes unless changes are made to avoid, mitigate/restore or, as a last resort, compensate for the ecological impacts, and introduce habitat and species enhancements. With such changes and subject to pre-application agreement with the Planning Authority, the project is considered likely to be feasible, however.
- **GREEN.** On present information, the proposals are expected to have no or only minor adverse impacts on ecology & biodiversity. In terms of ecology, the project can proceed on a conditional basis providing all the recommendations are met, enforced and monitored; the necessary bat surveys outlined within the document in particular are to be carried out, with any necessary actions taken where identified, prior to works commencing.

September 2024  
S:7205

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## Preliminary Ecological Appraisal

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| PRELIMINARY ECOLOGICAL APPRAISAL       |                                                                        |
|----------------------------------------|------------------------------------------------------------------------|
| Surveyor                               | Nicholas Valori                                                        |
| Confirm site risk assessment completed | YES                                                                    |
| Site address                           | Riverview Manor (formally Cosy Kennels), Scours Lane, Reading RG30 6AX |
| Project proposed if known              | Demolition of an existing bungalow                                     |
| Boundary as specified by client        | YES                                                                    |
| Central OS Grid Ref.                   | SU 68542 74556                                                         |
| Survey date                            | 4 September 2024                                                       |

| REPORT CONTROL             |               |
|----------------------------|---------------|
| General Report Information |               |
| Date report issued         | 3/12/24       |
| Contract manager           | Natalie Loben |

### Report Version Control

| Version | Date              | Author          | Description        |
|---------|-------------------|-----------------|--------------------|
| 1.0     | 27 September 2024 | Nicholas Valori | Document created   |
| 1.0     | 1 October 2024    | Nicholas Valori | Document completed |
| 1.1     | 2 October 2024    | Natalie Loben   | Document reviewed  |

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#### REPORT TITLES – AN EXPLANATORY NOTE.

PEA of a site is exactly that: an examination of a defined area that includes a walk-over to provide a reliable basic reference for clients. The terminology for reports varies between practitioners. Please note that the old Phase 1 habitat codes are replaced by the newer UK Habitat Classification v.2 (UKHab 2) and “Phase 1” is being phased out as a report title.

For more extensive or ecologically complex sites, please be aware that an EcIA - Ecological Impact Assessment and/or other more detailed examinations may be required, and please remember that, in any case, all basic surveys may identify matters that require more thorough investigation. PEAs may not be sufficient for a formal Planning Application.

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## INTRODUCTION

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As almost all ecological surveys relate to a planning application, it is useful to consider our work in this context. British Standard 42020: 2013 *Biodiversity. Code of practice for planning and development* is helpful in this respect ([www.bsigroup.com](http://www.bsigroup.com)) as it makes recommendations in the five typical stages of a planning application:

- Stage 1 (pre-application) – biodiversity in project design, the mitigation hierarchy (avoidance, adequate mitigation, or as last resort compensation), the impacts with constraints and opportunities, proportionality, surveys and reports;
- Stage 2 (validation, registration) – ensuring submitted information is sufficient;
- Stage 3 (decision making) – consultation, further information if needed, resolving issues;
- Stage 4 (determination) – setting deliverable Conditions, obligations if not covered by Conditions, additional consents that may be needed;
- Stage 5 (implementation) – protecting wildlife/biodiversity during construction, long term management and monitoring.

We are often only contacted after a project has been designed, which can be costly and problematic if biodiversity has not been sufficiently considered, especially since BNG is now mandatory in many cases. We always ask clients to contact us at the very earliest stage of a project, preferably when options for alternative sites are available. This can save significant costs and delays. We can and do assist with all five stages. The PEA is primarily confined to Stages 1 and 2 but, subject to any more detailed investigations that may be required, we can provide text suitable for incorporation as Conditions where relevant and we can offer assistance in negotiating, writing and discharging them. When appropriate, as is commonly the case to ensure the overarching aim of No Net Loss but rather Net Gains to Biodiversity, we can take full responsibility for all long-term ecological management and monitoring as an exclusive service through our Estates division.

## WORK NEEDED FOR COMPLIANCE AS REVEALED BY THE SURVEY

| REQUIRED FURTHER WORK (PROTECTED SPECIES & HABITATS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| From observations of this walk-over examination, is further work likely to be needed regarding notable/protected species, habitats, planning policy, biodiversity duty or related regulatory compliance?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Yes                                                                                             |
| <u>Work required if "yes":</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <u>Reason</u>                                                                                   |
| Carry out one emergence/re-entry bat survey during the optimal survey season prior to works commencing. If any bats are found to be using the property, two additional emergence/re-entry surveys are to be carried out. Where necessary, appropriate and proportionate mitigation measures are to be outlined and conditioned following the findings of these surveys.                                                                                                                                                                                                                                                                                                                                                                                     | Compliance with law protecting bats and their roosts.                                           |
| Avoid unnecessary negative impacts of new lighting at night, e.g. on bats, invertebrates, plants, night sky. Minimise the hours when lighting is used, avoid "spillage" by using directional down-lighting, reduce brightness of necessary illumination and keep light from shining on bat roost entries, mammal holes, etc.                                                                                                                                                                                                                                                                                                                                                                                                                                | Reducing ecological impact and compliance with National Planning Policy Framework.              |
| Create new wildlife habitats appropriate to the site's context, e.g. through the use of log piles, "wild" corners and native planting; install three bird boxes. Incorporate these features into the project's landscape/building design scheme, ideally on the apex of any gable-ends or similarly elevated positions, 3m from the ground.<br><br>The bird boxes should be a design suitable for sparrows, ideally providing either a row of three separate nest boxes with a 32mm opening, or a single sparrow terrace with three or more adjacent chambers. (We can provide specific recommendations for models and siting on request, but they must be of good quality and durable.) Bird boxes must be replaced when needed (usually after ten years). | Best practice and compliance with government policy on biodiversity protection and enhancement. |

| REQUIRED FURTHER WORK FOR GENERAL REGULATORY & GOOD PRACTICE COMPLIANCE                                                                                                                                                                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Is further work recommended to observe ecological best practice and/or planning policy as recognised by the various statutory authorities at local, regional, national, or international levels as may be applicable?                                                                                       | Yes                                                                                   |
| <u>Work required if "yes":</u>                                                                                                                                                                                                                                                                              | <u>Reason</u>                                                                         |
| Use native planting (preferably of local origin and reflecting local botany) wherever feasible in all landscaping. Where exotic species are planted, always avoid invasive species and choose those with wildlife value such as for nectar or shelter. (A list of species can be provided by us if needed.) | Biodiversity enhancement and helping to assure Biodiversity Net Gain and no net loss. |

| REQUIRED FURTHER WORK FOR GENERAL REGULATORY & GOOD PRACTICE COMPLIANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Embody Green Infrastructure protocols in landscaping and ensure ecological linkage out from and into the site. (Please ask us if you require further details.) Please ensure we are provided with the proposed landscape planting plan to verify compliance with Green Infrastructure, Pollinator Policy and Biodiversity Net Gain. Ensure that permanent monitoring and management of all ecological elements and greenspace of the site is established. This should be confirmed within the planning approval.                                                           | Ecological connectivity and future biodiversity protection/enhancement in accordance with latest guidelines. |
| Provide information to new residents/occupiers to encourage wildlife, for example hedgehogs, amphibians and birds in gardens <sup>1</sup> , and an interest in natural history. Assure that residents are aware of the need for responsible control of pets that may hunt or disturb fauna or damage flora. (Please ask if further assistance is required.)                                                                                                                                                                                                                | Improving public awareness.                                                                                  |
| Except on high-value grassland, heath or wetland, plant as many native trees as possible. Ask us for advice.                                                                                                                                                                                                                                                                                                                                                                                                                                                               | To combat climate change by capturing CO <sub>2</sub> .                                                      |
| Ensure that the "carbon footprint" and measures to combat climate change (see also tree planting above) in all aspects of the project and its future operation are compliant with current best practice. This should include taking appropriate steps to avoid or reduce the use of fossil fuels, minimising ground disturbance to conserve soil biology/ecology, employing scientifically sound carbon offset/CO <sub>2</sub> sequestration and instating renewable energy technologies. Ensure the measures agreed are quantified, independently verified and monitored. | To follow government and international policy on climate change and soils conservation.                      |

## RESULTS — WHAT WE FOUND

### Objectives

- To conduct a Preliminary Ecological Appraisal;
- To conduct a newt Habitat Suitability Index of all nearby water bodies; and
- To carry out a Daytime Bat Assessment.

<sup>1</sup> We publish a book on wildlife gardening which may be helpful to new residents. Please ask for details.

### Methods and Limitations

The site was examined using appropriate methods generally following the current guidance from the (Chartered) Institute of Ecology and Environmental Management<sup>2</sup> and the UK Habitat Classification<sup>3</sup>, with further reference to British Standards such as 42020<sup>4</sup> and 8683<sup>5</sup> as appropriate or practicable.

It should be noted that, whilst the investigation of the site was appropriately intensive within the intended framework of the commission, and we feel it is unlikely that significant matters have been overlooked, a single visit will inevitably miss species not apparent on the date of survey by reason of seasonality, mobility, habits or chance. Weather conditions were clear and sunny. While September is not within the optimal survey period for many taxa of nature conservation interest in this part of the United Kingdom, neither seasonality nor weather were considered significant limitations in the context of the present survey and its findings.

It should always be recalled that wildlife surveys of the kind required for planning and development or similar project purposes are seldom granted sufficient time or resources to examine non-vascular plants, invertebrates or fungi in great detail, yet these are the fundamental elements of ecosystems that provide the niches and habitats for larger fauna to exploit. Fungal mycelia in soil and associated with roots and decaying organic material are of exceptional importance in healthy ecosystem function, biological sustainability, biodiversity and as a carbon sink. It should always be borne in mind that land-use change, ground disturbance and intensive agriculture/forestry will usually have a significant adverse effect on fungal communities. This should be taken into account when appraising any project and appropriate avoidance/mitigation prescribed. In an ideal world, all surveys would include results of full sampling of vascular and non-vascular plants, micro- and macro-invertebrates and mycological status at individual, population and community levels. As that involves skills, time and expense well beyond what is available, we ask readers of our general survey reports to understand that we do consider the larger species we record in their wider ecosystem context and take into account the impacts of proposals at an ecosystem level when prescribing avoidance, mitigation, enhancement and/or compensation.

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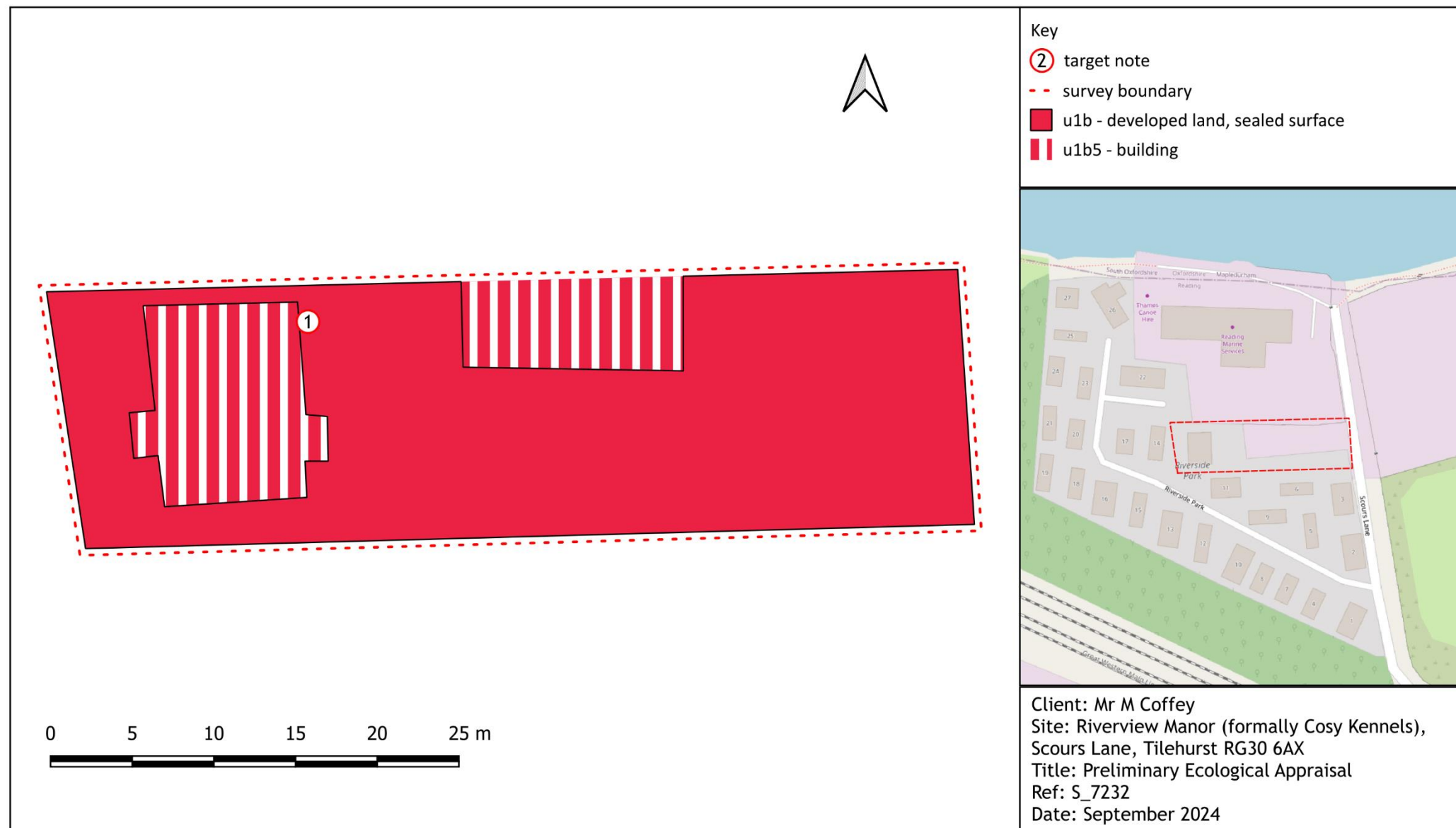
<sup>2</sup> The Chartered Institute of Ecology and Environmental Management guidelines which are regularly updated and we use our best endeavours to observe.

<sup>3</sup> The UK Habitat Classification and User Manual, see <https://ukhab.org/>.

<sup>4</sup> British Standards Institute (2013). *British Standard 42020: 2013 Biodiversity. Code of practice for planning and development*. British Standards Institute, London, UK.

<sup>5</sup> British Standards Institute (2021) *British Standard 8683 Process for designing and implementing Biodiversity Net Gain* British Standards Institute, London, UK.

## Habitats Plan<sup>6</sup>



<sup>6</sup> © UKHAB LTD, under licence. No onward licence implied or provided. All rights reserved [<https://ukhab.org/register/>].  
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## Results Table

| ITEM                                                                                                                                               | OBSERVATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Habitats &amp; Vegetation</b><br>(NB. Please be aware that several designated habitat types and many plants enjoy legal protection in Britain.) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| General description                                                                                                                                | <p>This document is in support of a proposed demolition of an existing residential bungalow, to be replaced by a new proposed residential development.</p> <p>The 865m<sup>2</sup> site is located within a mixed commercial and residential neighbourhood to the north of Tilehurst, 3.1km west of the Reading city centre, along the river Thames. The immediate surrounding area consists of a caravan park to the south, with a combination of paved surfaces and small suburban gardens. Mooring docks and boat rentals along the river side exist to the north. Sports facilities extend to the east of the site, whereas a small patch of riverside woodland stretches beyond the caravan park to the west. The entirety of the area is separated from the wider Tilehurst and Reading urban sprawl by a railway line to the south, creating a clear separation between the densely urban habitats to the south and the mixed suburban/rural riverside.</p> <p>The entirety of the site area is occupied by sealed, surfaces. While the site was occupied in the past by several kennels, it currently consists of the original bungalow residence to the west and a new, separate prefabricated building to the east. All open space across the site is sealed under scattered gravel and paved surfaces. The only vegetation present are a small number of planters containing ornamental shrubs along the eastern gate, the sole point of access into the site.</p> <p>Vegetation recorded was:<br/>Ornamental palms <i>Trachycarpus</i> sp.</p> <p>One Target Note was assigned during the survey, reflecting potential ecological interest or consequential development impact.</p> |
| Statutory designations (on/near)                                                                                                                   | <p>An online Public Records Search revealed five Statutory Designated Sites being present within a 2km radius: the Chilterns Area of Outstanding Natural Beauty (AONB), Round Copse Local Nature Reserve (LNR), McIlroy park LNR, Lousehill Copse LNR, and Blundells Copse LNR.</p> <p>The nearest section of the boundary to the Chilterns AONB is located 1.1km to the north of the site. All of the LNRs are located to the south of the site, with the nearest being McIlroy park and the furthest being Blundells Copse, 0.75 and 1.3km respectively. The AONB is separated from the site by the Thames and a number of rural, agricultural fields, whereas the LNRs are scattered within the Tilehurst urban sprawl, with little to no significant connectivity between these and the site. Furthermore, the proposal will not</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## Preliminary Ecological Appraisal

| ITEM                                                                         | OBSERVATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                              | <p>result in a significant increase in footfall during construction or occupation of the new residences that will result in significant pressure on any of the above-listed sites.</p> <p>The proposed development is highly unlikely to have a significant impact on the above sites, due to their relative distance and the primarily urban environment separating them, with little opportunity for run-off and off-site impacts from the proposed works to directly affect these designated sites. However, in accordance with best practice and mitigation of all wider impacts, appropriate avoidance and mitigation measures have been outlined within the individual fauna sections and conclusions below.</p> |
| Non-statutory designations (on/near)                                         | An online Public Records Search revealed no Non-Statutory Designated Sites being present within a 2km radius. Carrying out a formal Public Records Search from local data centres will allow to more accurately identify other nearby Non-Statutory sites. Considering the primarily suburban location and scale of works, however, the proposal is unlikely to result in significant off-site impacts.                                                                                                                                                                                                                                                                                                                |
| Target Note (TN) 1<br>(for location of TNs please see plan above)            | <p><b>Target Note 1.</b> The building to be demolished, a simple bungalow associated with the site's prior operations as a kennel.</p> <p>See full details in the 'Bats' section below.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Notable hedgerows, woodland or scrub                                         | None present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Ecologically notable trees (e.g. veteran, wildlife significant) <sup>7</sup> | No trees present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Ponds/water courses                                                          | No water bodies present. (See HSI section below for water bodies present within the surrounding landscape).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Notable communities                                                          | None observed on site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Notable vascular plants                                                      | None present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Notable bryophytes/algae                                                     | None observed on site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Notable lichens                                                              | None observed on site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Notable fungi                                                                | None observed on site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Other notable habitats/vegetation                                            | None observed on site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

<sup>7</sup> Please note that we do not check TPO status as this is a landscape/amenity planning classification.

## Preliminary Ecological Appraisal

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|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Features that should be retained                                                                      | <p>No significant vegetation or ecological features present on site.</p> <p>While risk of off-site impacts is minor due to the lack of significant vegetation and sealed surfaces within the site's surroundings, risk of any chemical or waste run-off into the river Thames should be appropriately avoided and mitigated. All fuel and chemicals to be used during demolition and construction works are stored in secured and banded CoSSH containers and/or bowsters, with suitable spill kits being readily available nearby.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b><u>Mammals</u></b><br>(NB. Several species and their habitats have very strict protection in law.) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Badger                                                                                                | None observed and no signs of foraging were present. The species is unlikely to commute across the site, due to the central location, sealed surfaces and lack of connectivity to more suitable external features.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Otter                                                                                                 | No suitable habitat present on site and no signs observed. While present within the Thames itself and its wider embankments, the site is neither directly linked to these more suitable habitats through a potential green corridor nor does it offer any suitable sources of forage or shelter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Other mustelids                                                                                       | No suitable habitat present on site and no signs observed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Bats                                                                                                  | <p>An inspection was made of all structures scheduled to be affected by the development proposal; as such, it does not include the eastern prefabricated building, as this has both been recently constructed and will not be affected by the proposed works. The inspection was carried out using 8 x 42 binoculars for any bat field signs or evidence of, or potential for, bat roosting such as faeces, feeding remains, oil staining, scratch marks, access points, loose claddings, cavities and hollows, etc. Methods followed those outlined in the Bat Conservation Trust's survey guidelines (Collins 2024)<sup>8</sup>.</p> <p><b>Target Note 1:</b></p> <p><i>Exterior</i></p> <p>The building is a bungalow constructed out of a combination of brick and wood/UPVC panels. The structure's roof is formed by simple corrugated, bitumen and fibre cement sheets.</p> <p>While the building's brickwork remains in good condition, several of the external panels and wooden fascia boarding forming much of the fascia, soffits and cladding are loose, creating scattered gaps within the structure's exterior suitable for crevice-dwelling bat species. The most prominent of these is a missing section of soffits along the roof's western aspect, opening directly into the internal roof space.</p> |

<sup>8</sup> Collins, J. (ed.) 2024. *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4<sup>th</sup> edn.)*. The Bat Conservation Trust, London, UK.

## Preliminary Ecological Appraisal

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|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          | <p><i>Interior</i></p> <p>The space between the ceilings of the bungalow and the corrugated roof is minimal, filled with dense insulation material and electric wiring. The rooms of the bungalow itself remain fairly enclosed, with no significant cracks or shattered windows which could be used by bats to access these sections of the interior.</p> <p>All parts of the ground surface below the exterior and interior of all these structures were inspected for bat droppings, feeding remains, dead bats, and any other evidence of recent bat activity as well, but none were found.</p> <p>The property was overall found to have a ‘low’ potential for supporting roosting bats. While the building offers a number of potential roosting opportunities for crevice-dwelling species, many of these remain fairly exposed to external temperatures and light spill. The low elevation of the structure itself further limits its overall suitability.</p> <p>In line with current recommendations outlined in the Bat Conservation Trust Guidelines (2024), the development should proceed on a conditional basis that one emergence or re-entry bat survey be carried out during the optimal survey season, prior to works commencing. If any bats are found to be using the property, two additional emergence/re-entry surveys are to be carried out, with works not commencing until the results of these are submitted reviewed.</p> <p>The nearby railway line, the river Thames and its embankments all represent important commute and foraging routes across the wider landscape for bat species. The most sensitive of these include the areas of open grassland and woodland bordering the above-listed features, further to the east and west of the site. To minimize further pressures from light disturbance within the immediate surroundings, all new exterior lighting to be installed as part of the development should be directed downwards through the use of cowling. Use of motion-sensitive switches and suitable low-impact UV lighting can similarly further minimize overall light disturbance within the property’s surroundings.</p> |
| Water vole               | No suitable habitat present on site and no signs observed. As with otters, while likely present within the Thames itself and its wider embankments, the site is neither directly linked to these more suitable habitats through a potential green corridor nor does it offer any suitable sources of forage or shelter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Common or hazel dormouse | No suitable habitat present on site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Deer                     | No suitable habitat present on site and no signs observed. The site is unlikely to be visited due to the tall gates and fences within its surroundings and lack of connectivity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Hedgehog                 | None present, and no field signs observed. The site does not offer any significant habitat but may occasionally commute along the outside of the site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## Preliminary Ecological Appraisal

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Shrews                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | As above.                                                                                                                                                                                                                                                                                                                                                                                                             |
| Others                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | It is likely that common, urban mammals (e.g. fox, rats, grey squirrels, mice) utilize and commute through the site.                                                                                                                                                                                                                                                                                                  |
| <b><u>Birds</u></b><br>(NB. With the exception of derogated pest or very common species (check current list as it changes), the Wildlife and Countryside Act (1981 and amendments) gives protection to all wild birds in Britain from killing, injuring or taking as well as taking, damaging or destroying nests in use or being built, and taking or destroying eggs. Many species are also protected by international statutes to which Britain is a signatory. <sup>9</sup> )                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Red list                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | House sparrow                                                                                                                                                                                                                                                                                                                                                                                                         |
| Amber list                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | None observed.                                                                                                                                                                                                                                                                                                                                                                                                        |
| Active nests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | None observed on site                                                                                                                                                                                                                                                                                                                                                                                                 |
| Other                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The following, green-listed avian species were seen and/or heard on/flying over the site: jackdaw, swan, mallard                                                                                                                                                                                                                                                                                                      |
| Comments on ornithology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | No bird nests, either old or in use, were observed within or around the surveyed structures.                                                                                                                                                                                                                                                                                                                          |
| <b><u>Herpetofauna</u></b><br>(NB. The barred grass snake, slow-worm, viviparous (common) lizard and adder (viper) are all protected from intentional killing or injury under Schedule 5, Section 9(1), of the Wildlife and Countryside Act as amended/reinforced by the CROW Act 2000. They are also protected under Schedule 5, Section 9(5) which prohibits selling, offering for sale, possessing or transporting for the purpose of sale, or advertising for sale, any live or dead animal, or any part of, or anything derived from the species. Other rarer species and their habitats have stricter protection.) |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Adder                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | No suitable habitat on-site and no signs observed.                                                                                                                                                                                                                                                                                                                                                                    |
| Barred grass snake                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | As above.                                                                                                                                                                                                                                                                                                                                                                                                             |
| Slow-worm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | As above.                                                                                                                                                                                                                                                                                                                                                                                                             |
| Common lizard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | As above.                                                                                                                                                                                                                                                                                                                                                                                                             |
| Rarer reptiles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | None observed. Site and location not suitable for rarer reptile species.                                                                                                                                                                                                                                                                                                                                              |
| Great crested newt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p>One pond was detected within a 500 m radius from the site during a desk-based search.</p> <p>The identified water body was a shallow and polluted pond along the Thames Path, 175m north-east of the site. This was found to have a Habitat Suitability Index (HSI) score of 0.37, indicating it as being of poor suitability for great crested newts. See HSI calculation appendix below for further details.</p> |

<sup>9</sup> Please also see [www.rspb.org.uk/wildlife/birdguide/status\\_explained.aspx](http://www.rspb.org.uk/wildlife/birdguide/status_explained.aspx) and [www.bto.org/sites/default/files/u38/downloads/home-news/2011-11/SUKB%202011%20final.pdf](http://www.bto.org/sites/default/files/u38/downloads/home-news/2011-11/SUKB%202011%20final.pdf) for red and amber lists etc., and explanations.

## Preliminary Ecological Appraisal

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                          | The surveyed site is entirely occupied by unvegetated, sealed surfaces, lacking features where these amphibians could conceal themselves during the day or during winter. It is also further separated from the wider, surrounding environments by its fencing and gates, as well as the surrounding road network. As such, the site is considered to be unsuitable great crested newt habitat and is not of any significance for this species. |
| Natterjack toad                                          | No suitable habitat. Not found in the area.                                                                                                                                                                                                                                                                                                                                                                                                     |
| Other amphibia                                           | No other amphibians were observed during the survey, and the site's features offer no suitable habitat for common amphibian species.                                                                                                                                                                                                                                                                                                            |
| <b>Fish</b><br>(NB. Various levels of legal protection.) |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Significant fishery                                      | N/A. No suitable habitat.                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Bullhead                                                 | N/A. No suitable habitat.                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Shad                                                     | N/A. No suitable habitat.                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Lampreys                                                 | N/A. No suitable habitat.                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Salmonids                                                | N/A. No suitable habitat.                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Other notable fish                                       | N/A. No suitable habitat.                                                                                                                                                                                                                                                                                                                                                                                                                       |

### **Macro-invertebrates**

Historically, macro-invertebrates have received relatively sparse attention in habitat surveys. Recent alarming declines in insect and other invertebrate populations coupled with the realisation of the great ecological importance of these taxa mean more detailed appraisal is required<sup>10</sup>. Several species enjoy legal protection.

| Ref. | Habitat                                                                                              | Designations A-E (list all) if habitat present on site* |
|------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| 1    | Decaying wood (all types, standing and lying, snags, sap runs, brash, debris, etc.)                  | E (Absent)                                              |
| 2    | Rotational management (may be planned or incidental; for nature conservation or other reasons)       | E (Absent)                                              |
| 3    | Nectar/pollen resources (estimate from site's botany)                                                | E (Absent)                                              |
| 4    | Wet & mesic substrata (riparian, marsh, fen, bog, mud, flushes, springs, seasonally inundated, etc.) | E (Absent)                                              |
| 5    | Open water (rivers, lakes, streams, ponds, ditches, etc.)                                            | E (Absent)                                              |
| 6    | Habitat mosaics and patchworks (include those on brownfield/formerly developed sites)                | E (Absent)                                              |

<sup>10</sup> Adapted from Dobson, J. & Fairclough, J. (2021). Rapid Assessments of the Potential Value of Invertebrate Habitats. *In Practice*, 112, pp 44-48.

## Preliminary Ecological Appraisal

### Macro-invertebrates

Historically, macro-invertebrates have received relatively sparse attention in habitat surveys. Recent alarming declines in insect and other invertebrate populations coupled with the realisation of the great ecological importance of these taxa mean more detailed appraisal is required<sup>10</sup>. Several species enjoy legal protection.

| Ref.                                                                                                                                           | Habitat                                                                                                                               | Designations A-E (list all) if habitat present on site* |
|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| 7                                                                                                                                              | Still air with insolation (suntraps and still-air microclimates in open situations)                                                   | C (Moderate)                                            |
| 8                                                                                                                                              | Still humid air (humid still-air microclimates in sheltered and shaded situations)                                                    | C (Moderate)                                            |
| 9                                                                                                                                              | Connectivity/corridors (ecological connectivity between the site and external habitats - see also note below about adjacent habitats) | D (Minor)                                               |
| 10                                                                                                                                             | Ecoclimes (graded transition between two or more broad habitats)                                                                      | E (Absent)                                              |
| 11                                                                                                                                             | Bare Earth (unshaded bare/sparsely vegetated well-drained substratum, irrespective of soil type)                                      | E (Absent)                                              |
| Are there any examples of A, B or C adjacent to the survey site or near enough that they will require protection during and after development? |                                                                                                                                       | No                                                      |

| Species                                   |                        |
|-------------------------------------------|------------------------|
| Crayfish                                  | No suitable habitat.   |
| Roman snail                               | None observed on site. |
| Other molluscs                            | None observed on site. |
| Lesser silver water-beetle                | No suitable habitat.   |
| Stag beetle                               | No suitable habitat.   |
| Other notable beetles                     | None observed.         |
| Butterflies/moths                         | None observed.         |
| Bees, wasps, flies, etc.                  | None observed          |
| Dragonflies/damselflies                   | None observed.         |
| Other notable entomological spp or groups | None observed.         |
| Notable invertebrate habitat              | None observed.         |

## Preliminary Ecological Appraisal

|                                            |                                                                                                                                                |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Overall assessment for macro-invertebrates | The site has limited value for macro-invertebrates other than common urban 'generalist' species able to adapt to a wide variety of conditions. |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                       |                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <b>Invasive alien species (IAS)<sup>11</sup> and pathogens</b><br>(There are an increasing number of these being listed by authorities. More and more are becoming subject to regulatory control that carries significant sanctions.) |                                                                                    |
| IAS (plants) (Wildlife & Countryside Act Article14, Schedule 9.)                                                                                                                                                                      | None observed.                                                                     |
| Other exotic plants that may cause problems.                                                                                                                                                                                          | None observed.                                                                     |
| Invasive animals (signal crayfish, killer shrimp, oak processionary moth, harlequin ladybird, zebra mussel, grey squirrel, etc.)                                                                                                      | Grey squirrels and harlequin ladybirds are highly likely to use the site at times. |
| <i>Phytophthora ramorum</i> and other serious plant diseases/pathogens (ash dieback, sudden oak death, etc.)                                                                                                                          | No obvious signs noted.                                                            |

| MANDATORY BIODIVERSITY NET GAIN  | YES/NO | ACTION REQUIRED IF "YES"                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Is this a mandatory BNG project? | NO     | <p>The proposal will impact less than 25m<sup>2</sup> of vegetated habitat and less than 5m of linear habitats such as hedgerows. As such, it is formally exempt from requiring a statutory BNG calculation.</p> <p>General information has been published by the government concerning BNG and is available on their website. A summary of the process has been produced by Betts, which can be found within the linked <a href="#">Information Sheet</a>.</p> |

<sup>11</sup> Sometimes referred to as "non-native species".

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## GREAT CRESTED NEWT HABITAT SUITABILITY INDEX RESULTS

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One pond is present within 500 metres of the development site. It was assessed for suitability to support great crested newts according to the Habitat Suitability Index (*sensu* Oldham *et alii* 2000). The Habitat Suitability Index (HSI) incorporates ten suitability indices (SIs), all of which are factors believed to affect this species. It is a numerical score where 0 indicates unsuitable habitat and 1 represents optimal habitat.

Categorisation of HSI Scores<sup>12</sup>:

| <b>HSI</b> |   | <b>Pond Suitability</b> |
|------------|---|-------------------------|
| <0.5       | = | poor                    |
| 0.5 - 0.59 | = | below average           |
| 0.6 - 0.69 | = | average                 |
| 0.7 - 0.79 | = | good                    |
| >0.8       | = | excellent               |

**NOTE:**  $HSI = (SI_1 \times SI_2 \times SI_3 \times SI_4 \times SI_5 \times SI_6 \times SI_7 \times SI_8 \times SI_9 \times SI_{10})^{1/10}$

### Great Crested Newt Habitat Suitability Index

The water body, a shallow, polluted pond along a riverside footpath, resulted in a HSI for great crested newts of 0.37 (see Table 1). A score below 0.5 is classified as a ‘poor’ index score.

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<sup>12</sup> Taken from: *Habitat Suitability Index - guidance note* - produced by National Amphibian and Reptile Recording Scheme (NARRS).

**Table 1:** Habitat Suitability Index for an ornamental pond in an adjacent field.

| HSI Factor                     | Pond        | Notes                                                                      |
|--------------------------------|-------------|----------------------------------------------------------------------------|
| SI 1 - Location                | 1           | The geographic location is optimal.                                        |
| SI 2 - Pond area               | 0.05        | 29 m <sup>2</sup> .                                                        |
| SI 3 - Pond drying             | 0.1         | Dries annually.                                                            |
| SI 4 - Water quality           | 0.33        | Low invertebrate diversity, highly polluted                                |
| SI 5 - Shade (to 1m from edge) | 0.2         | 90% shade from surrounding dense shrub                                     |
| SI 6 - Fowl                    | 0.67        | Waterfowl present.                                                         |
| SI 7 - Fish                    | 1           | No fish present.                                                           |
| SI 8 - Ponds                   | 0.65        | One suitable pond within 1 km of the surveyed pond.                        |
| SI 9 - Terrestrial habitat     | 1           | Located along the banks of the river Thames, near areas of open grassland. |
| SI 10 - Macrophytes            | 0.33        | 5% macrophyte cover.                                                       |
| HSI Score                      | <b>0.37</b> |                                                                            |
| Pond Suitability               | <b>Poor</b> |                                                                            |

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## CONCLUSION

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The vegetation observed across the site was minimal, and not found to be of high ecological value. The most significant ecological factor to consider within the proposal is the building itself, deemed to have a **low** potential of supporting roosting bats. The development is given a **GREEN** indication to reflect the overall minor impact the proposed development is expected to have on the surrounding landscape, with a conditional bat emergence/re-entry survey to be conducted prior to works commencing. This is to confirm the absence of roosting bats, advising necessary mitigation measures should any be found to be using the structure.

Due to the site's small scale and area, construction beyond the new building themselves will be limited to the existing, gravel garden. There will nevertheless be an opportunity to provide new features of good ecological value through the installation of bird boxes, ideally integrated directly into the new building or its immediate surroundings. Planting a native hedgerow or small tree line along the fence boundaries can also serve as a significant, small-scale enhancement by providing a source of shelter and forage in the form of nectar and berries for local suburban fauna. These would serve as a minor suburban microhabitat suitable for small urban fauna, such as garden birds.

It is essential that the ecological recommendations of this and any future ecological reports relating to this site are securely incorporated as formal Conditions within any planning consent the Local Authority is minded to grant, and that their implementation and ongoing care are verified and monitored by appropriately qualified persons in the Planning Authority or appointed by them.

### Notes

Please note that there is complex and strict legislation protecting many species and habitats. Full details are available on the web sites of Defra and the various statutory authorities, some of which now have direct powers of enforcement. If you are in any doubt about the status of species or habitats on your site, please be sure to contact us before undertaking any site work. You should also make sure that you are aware of, and have allowed for, all national and local planning policies relating to wildlife and nature conservation before proceeding.

This PEA may not be sufficient on its own for planning application purposes where notable habitats/species are present or potentially present, particularly where necessary further studies have been indicated in the text.

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## PHOTOGRAPHS

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Photographs were taken on 4 September 2024



**Fig 1.** View of the western aspect of the main bungalow.



**Fig 2.** Detail showcasing the large gap in the soffit and fascia boarding along the western aspect.



**Fig 3.** View of a prominent gap between the external boarding and brick wall on the north-eastern corner of the site.



**Fig 4.** View along the northern aspect of the property.



**Fig 5.** View of the property's eastern and southern aspects.



**Fig 6.** Detail showcasing the limited void space between the bungalow's ceilings and its roof.

## Preliminary Ecological Appraisal

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**Fig 7.** Eastern view across the site. Note the new, prefabricated building on the left. This will be unaffected by the proposed demolition works.



**Fig 9.** The shallow pond along the riverside walk, 175m north-east of the site.

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IMPORTANT

Please be aware that, because the natural environment is dynamic, ecological reports generally have a limited period of currency. Many statutory authorities now regard one year as the maximum time that should elapse before a report will need to be updated: occasionally it may be longer but it may also be less. Where a statutory wildlife licence is to be applied for, a walk-over of the site should be carried out **within three months** of an application being submitted to check that the habitats have not changed significantly since the survey was carried out.

Betts are a scientific practice. Any information relating to legal matters in this report is provided in good faith but does not purport in any way to give any advice on or interpretation of the law whatsoever. Professional legal advice should always be sought. Any designs, specifications, advice, suggestions, or comments written or verbal relating to construction or supervision of building-related work of any kind are provided for consideration only and under no circumstances are to be interpreted as provision of design, management or supervision *sensu* the Construction (Design and Management) Regulations 2007.

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## CAPABILITY and QUALITY ASSURANCE

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*Founded in 1985 to provide high quality professional services to meet an increasing market demand in applied environmental sciences, the Practice stems from the original Betts family business which was established in 1760 for the refining and recycling of high value industrial wastes and mineral ores. Betts thus offer an unusual blend of technological and practical expertise in a range of environmental disciplines, allied particularly to the biological conservation legislation and biodiversity policies of recent years. Contracts undertaken cover a wide spectrum of projects at local, national and international levels in the construction, extractive, agricultural, leisure, energy and general industrial sectors. Scientific staff belong to appropriate professional institutes by whose codes of practice they abide. Due consideration of the British Standards on Biodiversity is included in relevant work and applied where appropriate.*

### **Nicholas Valori BSc MSc — Ecologist**

Nicholas holds a Bachelor of Science degree in Zoology and a Masters in Ecological Consultancy from the Russell Group University of Newcastle-upon-Tyne. Modules encompassed Human-Wildlife Conflicts, Botany, Soil Surveys, use of Geographic Information Systems, Environmental Impact Assessment and Wildlife Legislation in theory and practice, plus a full range of other studies including Animal Behaviour, Applied Ecology, Biological Modelling, Ornithology, Entomology and small mammal trapping. Nicholas' field experience includes great crested newt surveying and trapping, bat surveys, habitat management and enhancement work, volunteer training and a variety of other UK, EU and international projects.

*NB. Whilst all due and reasonable care is taken in the preparation of reports, Betts accept no responsibility whatsoever for any consequences of the release of this report to third parties. Clients are reminded that all work carried out by Betts is subject to our Terms of Trading which may be viewed at any time on our web site at [www.bettsecology.com](http://www.bettsecology.com) or can be provided on request. Please again be aware that site surveys inevitably miss species not apparent on the date of visit(s) by reason of seasonality, mobility, habits or chance. Results are indicative and given in good faith but they are not a guarantee of presence or absence of any particular taxa.*

*Please note that this report is a Preliminary Ecological Appraisal of factors and features that may be significant for regulatory compliance and biodiversity policies relating to change of use or other disturbance. Such reports may not, on their own, contain sufficient information for a planning application and may require further more detailed study to assure compliance.*

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