PRELIMINARY ECOLOGICAL APPRAISAL

OCTOBER 2024

Mill Brook
Wastdale Road
Wythenshawe
Manchester
M23 2RX

URBAN GREEN

QUALITY MANAGEMENT

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Revision Status

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1 Executive Summary

1.1.1.1 Alternative Futures Group is proposing to develop land at Millbrook Independent Hospital, Wythenshawe (hereafter referred to as 'the site'). It is proposed to expand the existing site by the addition of two four-room, single storey accommodation blocks to the north of the Millbrook Independent Hospital, adjacent to Wastdale Road, with private gardens and a new access path.

1.1.1.2 Urban Green has been appointed to complete a Preliminary Ecological Appraisal of the site. The objectives of the assessment are to identify habitats on site and determine the suitability for any 'protected and/or notable' species that may occur on site. Further ecological surveys and mitigation are recommended to aim to minimise potential impacts on ecology, due to the proposed development.

1.1.1.3 Following the survey work, the key recommendations are summarised in the following table:

Current Site Use and Adjacent Site Use	The site forms part of Millbrook Independent Hospital, as amenity space for residents, along with bare ground from recently cleared scrub. The surrounding environment comprises of residential development with associated green space and planting.
Potential Impacts on Designated Sites	No potential impacts on designated sites nearby to the site are anticipated to occur due to the proposed development. The site is located at a sufficient distance from nearby designated sites, and the proposed development activities have been considered.
Habitats	The site comprised predominantly bare ground and modified grassland, with associated hardstanding, buildings, hedgerows and urban trees.
Ecological Constraints	The following potential ecological constraints were identified during the assessment: • Suitable habitats for nesting bird species, common amphibians, foraging bats, hedgehog and commuting badger.
Recommended Ecological Mitigation	The following mitigation measures are recommended to minimise potential impacts due to the proposed development: • Reasonable Avoidance Measures for common amphibians and hedgehog. • Precautionary Working Methods during the construction phase for badgers and foraging bats. • If any vegetation requires removal, it should be completed outside of the breeding bird season (March to September, inclusive). If this is not feasible, a Nesting Bird Check is to be completed by a qualified ecologist within 48 hours before removal is completed.
Recommended Further Surveys and Reports	No further surveys are required for works to commence on site.
Recommended Ecological Enhancements	The National Planning Policy Framework (NPPF) (2021) highlights the requirement for planning policies and decisions to conserve and enhance the natural environment. The proposed development provides the opportunity to enhance the site and ecological enhancements have been recommended.



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Legend:

Red Line Boundary

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Client: **Alternative Futures Group**	Issue: **01**	
Project: **Wythenshawe AFG**	Scale @ A4 **1:5,000**	
Title: **Site Context**	Approved by: **HM**	Checked by: **HL**
Drawing Ref: **UG_2548_SITE_CONTEXT**	Author: **CL**	Date: **11/06/2024**

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Wastdale Road

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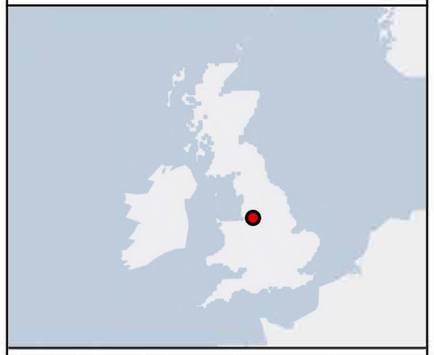
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- Red Line Boundary
- Urban Tree
- Artificial unvegetated - unsealed surface
- Building
- Developed land - sealed surface
- Modified grassland
- Urban
- Sparsely vegetated urban land

N

0 3 6 12 Meters



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Client: Alternative Futures Group		
Project: Wythenshawe AFG		
Title: UKHAB Habitat Map		
Issue: 01		
Drawn: CL	Checked: SB	Approved: SB
Project: UG2548	Scale @ A3: 1:250	Date: 25/09/2024
Dwg No: UG_2548_ECO_HM_01		Revision: 01

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Figure 3. Photographs of the Site



Photograph 1 – Hardstanding on site



Photograph 2 – Modified Grassland



Photograph 3 – Sparsely Vegetated Land to the east of site



Photograph 4 – Urban Tree on site



Photograph 5 – Introduced shrub



Photograph 6 – Artificial unvegetated; unsealed surface

2 Introduction

2.1 Scope

2.1.1.1 Urban Green has been instructed by Alternative Futures Group to carry out a Preliminary Ecological Appraisal to British Standard 42020:2013 guidelines at Millbrook Independent Hospital and produce our findings in a report.

2.1.1.2 It is proposed to expand the existing site by the addition of an extension to the west of the Millbrook Independent Hospital.

2.2 Site Context

2.2.1.1 The site is located at National Grid Reference SJ 81007 87770 and comprises a total area of approximately 0.14ha (see Figure 1).

2.2.1.2 The site is located to the north of the Millbrook Independent Hospital in the Wythenshawe area of south Manchester. It is situated within a residential area, with the Wythenshawe hospital complex to the northwest, and areas of agricultural land located approximately 400m west and southwest. Access to the site is via Wastdale Road.

2.3 Purpose of Report

2.3.1.1 This report has been produced to set out the methods, results, and conclusions of a PEA. The purpose of the PEA report is to identify habitats on site and determine the sites potential value for protected and/or notable fauna and flora, with the addition of potential impacts on designated sites. This will inform the need for any further ecological surveys and/or mitigation to minimise the potential impacts on ecology on site and within the local area.

2.3.1.2 Further information and details of UK legislation for those species which are formally protected is defined in Appendix 1, which are considered throughout the assessment.

2.3.1.3 The National Planning Policy Framework (NPPF) (2023) and other Local Planning Policies are considered with the PEA. Ecological enhancements are advised to be in line with relevant Planning Polices.

3 Methods

3.1.1.1 The PEA assessment and Report follows the good practice methodology as detailed within the *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2019).

3.2 Desk Study

3.2.1 Online Resources and Local Records Centre

3.2.1.1 Due to the size and low impact of the proposed development and being located within a predominantly urban area of Manchester, a 1km Local Data Search was conducted as it is deemed an appropriate distance for the Zone of Influence.

3.2.1.2 Sources of information used in the desk study are presented in Table 1.

Table 1 – Desk Study Sources of Information

Source	Date Consulted	Information Sought
MAGIC website (www.magic.gov.uk)	05/07/2024	Locations of statutory designated sites within 1km of the site boundary. Locations of Natura 2000 sites (Ramsar, Special Area of Conservation (SAC) and Special Protection Area (SPA)) within 5km of the site boundary. Locations of European Protected Species Licences (EPSL) and Class Licences within 1km.
Natural England (https://designatedsites.naturalengland.org.uk/)	05/07/2024	Relevant statutory designated site citations.
JNCC (https://jncc.defra.gov.uk/)	05/07/2024	Information on European wildlife sites. Details of relevant Section 41 species and habitats.
Greater Manchester Ecology Unit	27/06/2024	Locally designated wildlife sites within 1km of site boundary. Records of protected and notable species within 1km of the site boundary.
Greater Manchester Local Biodiversity Action Plans	05/07/2024	Species and habitats which are given special conservation status at the local level.

3.3 Field Survey

3.3.1 Vegetation

3.3.1.1 The site was subject to a field survey on the 29th May 2024, by Shannon Brady, Senior Biodiversity Net Gain Consultant. The weather conditions were 14°C, dry, 8/8 oktas, with wind speed 2 Beaufort scale.

3.3.1.2 The methods were based on the standard methodology as detailed by The UK Habitat Classification User Manual (UKHab Ltd. 2023). A UKHab Habitat Plan has been produced to demonstrate habitats within the proposed development and the surrounding area. The mapping techniques are based on The UK Habitat Classification User Manual (Butcher et al, 2020) guidance.

3.3.1.3 Flora species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and species which are indicators of important and/or uncommon habitats, were searched for during the survey.

3.3.1.4 Species abundance is described using the DAFOR scale as shown in Table 2. Percentages are an approximate indication rather than a quantitative measure.

Table 2 - Key to Species Abundance

		Description	Indicative Percentage Ranges
D	Dominant	Covers most of the area	90% or greater
A	Abundant	Very common throughout the area.	50 – 90%
F	Frequent	Common or with many individuals.	20 – 50%
O	Occasional	Occurs in several places but not throughout. Populations are not large.	5 – 20%
R	Rare	Occurs in low numbers in relation to size of area.	Less than 5%
"L" will be used to indicate abundance in a localised area, e.g. LA = Locally abundant			

3.1.1.1 Any invasive species, including those listed on the revised (April 2010) Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were noted during the field survey when sighted.

3.3.2 Fauna

3.3.2.1 A site search for field signs of protected and notable fauna was undertaken, and incidental sightings are detailed. The searches completed were as follows:

- Suitability of any ponds to support notable and protected amphibians, and the suitability of the site's terrestrial habitats to support amphibians.
- Suitability of the site to support reptiles by way of habitat structure and refuge piles, as well as links to the wider landscape.
- Search of any watercourses for signs or suitability for white-clawed crayfish (*Austropotamobius pallipes*), water vole (*Arvicola amphibius*) and otter (*Lutra lutra*) by way of burrows, resting places, holts, and foraging signs.

- Suitability of the site to support notable bird species. Bird nests and droppings of notable and protected bird species.
- Suitability of the site to support notable invertebrates.
- Search of the site for any invasive species.
- Badger (*Meles meles*) field signs such as setts, mammal, paths, snuffle holes and latrines.
- Suitability of the site to support notable terrestrial mammals including harvest mouse (*Micromys minutus*) and brown hare (*Lepus europaeus*).

3.4 Bat Assessment

3.4.1 Commuting and Foraging Bats

3.4.1.1 The site was assessed for its suitability for use by commuting and foraging bats.

3.4.1.2 The commuting and foraging assessment methodology is based on information contained within the Bat Conservation Trust guidelines 4th edition (Collins, 2023). The categorisation within this report is based on that set out in Table 3, which is used as a basis for determining the requirement for further surveys.

Table 3 – Suitability of Site for Foraging and Commuting Bats (adapted from Collins, 2023)

Category of Suitability	Typical Characteristics
High Suitability	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting or foraging bats such as; river valleys, streams, hedgerows, lines of trees or woodland edge. Site is close to or connected to known roosts.
Moderate Suitability	Continuous habitat connected to the wider landscape that could be used by commuting bats such as lines of trees, scrub or linked back gardens. Habitat connected to wider landscape that could be used for bats for foraging such as; trees, scrub, grassland or water.
Low Suitability	Habitat that could be used by small number of commuting bats such as; defunct hedgerow, isolated features not well connected to surrounding habitat or Isolated habitat that could be used by a small number of foraging bats such as a lone tree or patch of scrub.
Negligible Suitability	No features on site suitable for use by commuting and foraging bats.

3.5 Habitat Suitability Index

3.1.1.1 No ponds were present on site or within 250m of the site. As great crested newts' upper dispersal limit is generally considered to be up to 250m from a waterbody (though occurrence of greater distances does exist), ponds beyond this distance were not assessed due to limited connectivity (English Nature, 2001).

3.6 Constraints to the Survey

3.6.1.1 Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment.

3.6.1.2 This PEA does not constitute a full botanical survey. The protected species assessment provides a view of the likelihood of protected species occurring on the site based on the known distribution of species in the local area and the suitability of the habitat.

3.6.1.3 It should not, however, be taken as providing a full and definitive survey of any protected species group.

3.6.1.4 Where a lack of records is found during the desk search for a defined geographical area, it does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.

3.6.1.5 The conclusions and recommendations detailed in this report are based upon the site redline boundary and the development proposals as outlined by the client at the time of writing. Should there be any changes to the site redline boundary or development proposals at a later stage, this assessment should be reviewed to determine whether any amendments or additional survey work is required.

3.6.1.6 The findings of this report represent the professional opinion of qualified ecologists and do not constitute professional legal advice. The client may wish to seek professional legal interpretation of the relevant wildlife legislation cited within this document.

3.7 Lifespan of Report

3.7.1.1 In accordance with CIEEM's Advice Note on the Lifespan of Ecological Reports and Surveys (CIEEM, 2019), the details of this report will remain valid for a period of **18 months** from the date of the survey (i.e. until 29th November 2025). After this date, this assessment should be reviewed to determine whether any updated surveys are required.

3.8 Definitions

3.8.1.1 For the purposes of this report, the term 'protected and notable species' relates to:

- Species included on Schedules 2 and 4 of *The Conservation of Habitats and Species Regulations 2017*;
- Species included on Schedules 1, 5 and 8 of the *Wildlife and Countryside Act 1981* (as amended), excluding species that are only protected in relation to their sale (see section 9[5] and 13[2]);
- Invasive non-native species included on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended);
- Species of principal importance for the conservation of/maintaining and enhancing biodiversity as required under: Section 41 of the *Natural Environment and Rural Communities Act 2006* (England), Section 7 of the *Environment (Wales) Act 2016*, Section 2[4] of the *Nature Conservation (Scotland) Act 2004*;
- Local species of importance as identified within various local biodiversity action plans; and,
- Badgers, which are protected under the *Protection of Badgers Act 1992*.

4 Baseline Ecological Conditions

4.1 Site Context

4.1.1.1 The site lies within a predominantly urban area of Manchester, with residential estates present in the immediate vicinity and the wider area. Mill Brook runs through Milky Button Park, approximately 100m east of site, with areas of dense vegetation present surrounding the brook.

4.1.1.2 It is anticipated these habitats will provide suitable foraging, resting, and commuting resources within the local area for a variety of wildlife, such as birds, bats, and other terrestrial mammals.

4.2 Designated Sites

4.2.1.1 No sites that form part of the National Site Network were located within 5km of the site boundary. One statutory site was located within 1km of the site, pertaining to Ponds at Davenport Green Site of Biological Importance (SBI), located approximately 1km south. The SBI consists of a cluster of ponds which support the greatest number of great crested newt (*Triturus* cristatus) in Trafford, and terrestrial habitat including marsh, grassland, hedgerows and streams which support a range of plant species.

4.2.1.2 The site also falls within the Impact Risk Zone of the following Statutory Sites, based on consultation with MAGIC:

- Cotteril Clough Site of Special Scientific Interest (SSSI): Located 3.4km south of site, the SSSI comprises part of a ravine, or clough, cut into the Keuper Marl by the erosion of the Cotteril Brook. The majority of the site is woodland with associated stream habitat and is the most diverse clough woodland on base rich soils in Greater Manchester.

- Rostherne Mere Ramsar, SSSI and National Nature Reserve (NNR): Located 6.8km southwest of site, the Meres & Mosses of the north west Midlands form a nationally important series of open water and peatland sites. These have developed in natural depressions in the glacial drift left by the ice sheets which covered the Cheshire-Shropshire plain some 15,000 years ago. The majority lie in Cheshire and north Shropshire, with a small number of outlying sites in adjacent parts of Staffordshire and Clwyd.

4.3 Flora and Fauna

4.3.1.1 The following section summarises protected and/or notable species records that have been recorded within 1km of the site.

4.3.1 Invertebrates

4.3.1.1 Seven records of notable invertebrates were returned within 1km of the site, relating to records of cinnabar (*Tyria jacobaeae*) and small heath (*Coenonympha pamphilus*). The closest record was attributed to a record of cinnabar, located 400m north in 2019. Both species are protected under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

4.3.2 Amphibians

4.3.2.1 Three records of great crested newt were returned, all of which returned approximately 650m southwest in 2006. Great crested newt are a European Protected Species under Schedule 2 of the Conservation of Habitats and Species Regulations (Habs Directive) 2017, Schedule 5 of the Wildlife and Countryside Act (WCA) 1981, and Section 41 of the NERC Act (2006). GCN are also listed as a priority species under the Greater Manchester Biodiversity Action Plan (BAP).

4.3.2.2 A MagicMap search returned no granted EPSL relating to great crested newts present within 1km of the site.

4.3.3 Birds

4.3.3.1 A total of six records of protected or notable birds were returned within 1km of the site as detailed in Table 4.

Table 4 – Protected or notable birds recorded within 1km

Scientific Name	Common Name	Protection	Closest Record to Site	
			Approx. Min. Distance (m)	Date
Prunella modularis	Dunnock	BoCC5**, S41****	1000	2014
Falco peregrinus	Peregrine	Sch.1*****	1000	2008
Turdus philomelos	Song thrush	BoCC5**, S41****	1000	2014
Muscicapa striata	Spotted flycatcher	BoCC5*, S41****	600	2015
Sturnus vulgaris	Starling	BoCC5*, S41****	250	2014

* Red list of BoCC5 (2021)
** Amber list of BoCC5 (2021)
*** Black list BoCC5 (2021)
**** Section 41 of the NERC Act (2006)
***** Schedule 1 of the WCA (1981)

4.3.4 Bats

4.3.4.1 A total of thirty-six records of bat species were returned within the data search, comprising species of unidentified bat species (*Chiroptera* sp.), pipistrelle species (*Pipistrellus* sp.), common pipistrelle (*Pipistrellus pipistrellus*), noctule (*Nyctalus noctula*), brown long-eared (*Plecotus auritus*), whiskered bat (*Myotis mystacinus*) and *Myotis* species. The closest record was attributed to an unidentified pipistrelle species, recorded approximately 300m south of site in 2013.

4.3.4.2 All species of bat are European Protected Species under Schedule 2 of the Habs Directive (2017), protected species under Schedule 5 of the WCA (1981) and are listed as a priority species within the Greater Manchester BAP. Brown long-eared and noctule bat are both protected under Section 41 of the NERC Act (2006).

4.3.4.3 A MAGiC map search returned no granted ESPL regarding bats within 1km of the site.

4.3.5 Hedgehog

4.3.5.1 Three records of hedgehog were returned within 1km of the site, with the closest record located approximately 300m southeast of site in 2021.

4.3.5.2 Hedgehog are protected under Section 41 of the NERC Act (2006).

4.3.6 No Records Returned

4.3.6.1 The data search returned no records for:

- Badger
- Notable plant species
- Hazel dormice (*Muscardinus avellanarius*)
- Otter
- Red squirrel (*Sciurus vulgaris*)
- Water vole
- White-clawed crayfish
- Invasive non-native species

4.4 Field Survey

4.4.1.1 The site habitats and accompanying Target Notes are presented in the UKHab Habitat Map in Figure 2.

4.4.1.2 Secondary codes are added to confirm the identity of a habitat (when necessary), and also to provide information on management and the environment relating to that habitat parcel. The number and type of secondary codes added to a primary habitat will vary depending on the habitats present. There is no limit to the number of secondary codes that can be used for a single parcel. More details regarding the secondary codes used can be found in Appendix 2.

4.4.1.3 Photographs detailing the habitats on site are available within Figure 3.

4.4.2 Hardstanding (u1b)

4.4.2.1 Areas of hardstanding surround the habitats on site forming paths, car parks, as well as a part of the main building.

4.4.3 Modified Grassland (g4)

4.4.3.1 The site comprised of two parcels of modified grassland, featuring lawns of amenity grassland (Figure 3, Photograph 2). The grass was mown regularly to a short sward height, forming amenity spaces used by residents.

4.4.3.2 The grasslands contained species characteristic of the habitat type, including white clover (*Trifolium repens*), Yorkshire fog (*Holcus lanatus*), ragwort (*Jacobaea vulgaris*), sweet vernal (*Anthoxanthum odoratum*), creeping bent (*Agrostis stolonifera*), meadow grass (*Poa* spp.), creeping buttercup (*Ranunculus repens*), black medic (*Medicago lupulina*), dandelion (*Taraxacum* spp.), red fescue (*Festuca rubra*), broadleaved dock (*Rumex obtusifolius*), common daisy (*Bellis perennis*), common plantain (*Plantago major*), common chickweed (*Stellaria media*), and ribwort plantain (*Plantago lanceolata*).

4.4.4 Sparsely vegetated land (u1)

4.4.4.1 The northeastern portion of the site had undergone recent clearance at the time of the site visit and this section, removing mixed scrub, and was left largely bare, with some colonising vegetation present (Figure 3, Photograph 3).

4.4.5 Urban tree

4.4.5.1 A single urban tree was present within the red line boundary, comprising of a medium lime (*Tilia* sp.) which exhibited evidence of pruning and crown lifting (Figure 3, Photograph 4).

4.4.6 Non-native and ornamental hedgerow (h2b)

4.4.6.1 A bed of introduced shrub containing species such as Portuguese laurel (*Prunus lusitanica*), New Zealand broadleaf (*Griselinia littoralis*), Diel's cotoneaster (*Cotoneaster dielsianus*), and wintergreen barberry (*Berberis juilanae*) (Figure 3, Photograph 5).

4.4.7 Artificial Unvegetated; Unsealed Surface (u1c)

4.4.7.1 To the south of site was an area of gravel surfacing and bare ground with associated poly tunnel, shed, and raised beds, used as communal garden space (Figure 3, Photograph 6).

4.5 Site Suitability for Protected and Notable Species

4.5.1 Species Discounted from Assessment

4.5.1.1 Water vole, otter and white-clawed crayfish have been discounted from assessment as no aquatic habitats are located on site. The closest aquatic habitat is located approximately 100m east, relating to Mill Brook. The site and Mill Brook are separated by sufficient anthropogenic barriers that development will not significantly affect the watercourse.

4.5.1.2 Hazel dormouse mainly occur in southern counties, especially in Devon, Somerset, Sussex and Kent. There are few recorded localities north of the Midlands, though they are present in parts of the Lake District and in scattered Welsh localities (Matthews *et al*., 2018). The species are not generally known to be present within the area (Wembridge *et al*., 2016). The habitats on site are of limited value due to limited areas of extensive woodland and scrub. As such, the species are reasonably discounted from site.

4.5.1.3 Red squirrel have been discounted from the assessment. Red squirrel populations are limited to small areas of northern England and are not known to be present in the area; with no previous records returned in the data search. It is anticipated that high abundances of grey squirrel (*Sciurus carolinensis*) are present within this region (Shuttleworth/RSST n.d.). This species will displace red squirrel through competition as well as cause increased red squirrel mortality through the spread of squirrel pox (The Mammal Society, 2020).

4.5.2 Vascular Plants

4.5.2.1 The habitats on site provide limited suitability for notable vascular plants through an active management routine and plantation of non-native ornamental hedgerows. No notable species were recorded on site during the survey.

4.5.2.2 As such, notable plant species have been reasonably discounted from assessment.

4.5.3 Invertebrates

4.5.3.1 No deadwood, aquatic habitats or high floristic diversity was located on site which would provide an important resource for invertebrates during their life cycle. It is anticipated common species will be present due to the range of habitats on site.

4.5.3.2 Overall, the presence of notable invertebrates within the site is reasonably discounted

4.5.4 Amphibians

4.5.4.1 No ponds were located within site or within 250m of the site boundary. As great crested newts' upper dispersal limit is generally considered to be up to 250m from a waterbody (though occurrence of greater distances does exist), great crested newts are not anticipated to be present on site (English Nature, 2001).

4.5.4.2 The site comprised a mosaic of managed habitats which may provide suitable foraging resources and cover for common amphibians such as common toads. Ornamental water bodies may be located within nearby residential gardens which may provide suitable conditions for breeding common amphibians.

4.5.4.3 The presence of great crested newts within the site is reasonably discounted, though common amphibians may occur on site.

4.5.5 Reptiles

4.5.5.1 The site was found to provide limited value for reptiles, given the majority of the site comprised modified grassland, bare ground and hardstanding areas, which lack the structure and habitat quality to support the species group.

4.5.5.2 Overall, the habitats on site were of limited value and no records of the species group were identified. Reptiles are not considered to be present on site.

4.5.6 Birds

4.5.6.1 Habitats present on site provide potential for nesting bird species through both the hedgerow and tree on site. A bird's nest was also identified on site within the willow tree.

4.5.6.2 As a result, it is likely that nesting birds will be present within these habitats on site.

4.5.7 Bats

Preliminary Roost Assessment

4.5.7.1 A PRA was completed on all structures and a GLTA completed on trees located on site and adjacent.

4.5.7.2 In summary, no buildings or trees were identified as having bat roosting potential.

Commuting and Foraging Bats

4.5.7.3 The habitats on site are unlikely to provide value for foraging bats due to a lack of habitats that would provide suitable invertebrate prey. Linear features on site are limited to an ornamental hedgerow, and urban lighting may deter activity on site. Habitats within the local area, such as Mill Brook, provide more suitable foraging opportunities, although such linear features may provide a route on to site for foraging bats.

4.5.7.4 The site has no potential to support roosting bats, whilst limited foraging will occur on site.

4.5.8 Hedgehog

4.5.8.1 The ornamental hedgerow on site may provide suitable cover and foraging habitats for the species.

4.5.8.2 Hedgehog are potentially present within the site.

4.5.9 Badger

4.5.9.1 The wider landscape was assessed as having suitability for the species based on habitats surrounding Mill Brook, which connect to the wider area. The site provides limited sett-building opportunities, although activity on site cannot be ruled out.

4.5.9.2 Badger may be present on site through foraging and commuting.

4.6 Invasive Species

4.6.1 Flora

4.6.1.1 No invasive, non-native species were present on the site at the time of the field survey. However, it should be noted that some invasive non-native plants are very fast spreading and therefore the potential for these species to be introduced to the site at a later date cannot be ruled out.

5 Ecological Constraints and Recommended Mitigation

5.1 Proposed Development

5.1.1.1 It is proposed to expand the existing site by the addition of an extension to the west of the Millbrook Independent Hospital.

5.2 Designated Sites

5.2.1.1 The site is located within the impact risk zone for several SSSIs within the local area. It is anticipated that the designated sites are a sufficient distance away and are separated by anthropogenic barriers such as the residential areas, such that no impacts as a result of development are anticipated.

5.2.1.2 One non-statutory site is located within 1km of the site boundary, attributing to Ponds at Davenport Green SBI. It is unlikely that this will cause an increase in visitors, based on the size and purpose of the scheme. It is anticipated that any potential impacts will not be of significance.

5.3 Habitats

5.3.1.1 The site comprised habitats that were found to be widespread within the local area; however, they did contain value for wildlife such as bats, birds, and terrestrial mammals, with the hedgerow and urban tree providing the most potential.

5.3.2 Broadleaved Woodland and Trees

5.3.2.1 An Arboricultural Impact Assessment of the site's trees has been produced by Urban Green (Ref: UG_2548_ARB_AIA_00_FINAL).

5.3.2.2 Generally, the protection measures of retained trees will be through the use of temporary protective demarcation fencing to protect the trees and shrubs. The fencing must extend outside the canopy of the retained trees and must remain in position until all plots have been developed to ensure protection is provided throughout the construction phase.

5.3.2.3 The fencing will be in accordance with BS 5837:2012 Trees in Relation to Design, Demolition and Construction: Recommendations.

5.3.2.4 It is recommended that replacement tree planting at a 1:3 ratio is required to compensate for loss of any trees. It is recommended that the planting comprises native species and species known to be of value for the attraction of wildlife. This will include fruiting and flowering species.

5.4 Fauna

5.4.1 Amphibians

5.4.1.1 Great crested newts were deemed unlikely to be present on site and no further consideration for the species is required. However, there is a possibility that common amphibians such as common toad may be present on site.

5.4.1.2 It is recommended that Reasonable Avoidance Measures are to be followed during site clearance. All site contractors are to be inducted to the potential presence of the species. Any debris is to be cleared by hand, and any common amphibians located moved carefully, by hand, to outside of the development area.

5.4.2 Birds

5.4.2.1 Hedgerow and tree removal should be undertaken outside of the breeding bird season (March to September, inclusive). If this is not possible, a suitably experienced ecologist should check the habitat for breeding bird activity no more than 48 hours before clearance. If nesting activity is found, nests must be left in situ until the young have fledged.

5.4.2.2 The site has been assessed to provide some suitable habitat for nesting birds, therefore it is recommended that the landscape scheme for this site contains a range of habitats such as scrub and trees, which will provide suitable shelter and nesting habitat for a range of bird species which are likely to be present in the surrounding area.

5.4.3 Bats

Foraging and Commuting Bats

5.4.3.1 The site was assessed as being of negligible value to commuting and foraging bats. It is recommended that the landscape designs for this site contain a mix of native plant species and those known to be of value to native invertebrate species, providing additional value to local bat populations as a foraging resource.

5.4.4 Hedgehog

5.4.4.1 Hedgehog may be present on site, as such checks for hedgehogs should be carried out prior to hedgerow removal to avoid harming this species during works.

5.4.5 Badgers

5.4.5.1 It is considered that the badgers located within the local area and on site are generally tolerate to anthropogenic disturbance as the site is located within a residential area.

5.4.5.2 The following Precautionary Working Methods will be adhered to during construction phase to ensure that no badgers are impacted by the proposed development:

- All site operatives will be inducted to the potential presence of the species and the species legal protection.
- All site operatives will be inducted as to identifying potential badger setts and should be vigilant if they suspect they locate a new sett during works and inform the site manager immediately. A minimum 20m buffer will be maintained from the potential sett until an ecologist has been to site.
- All excavations will be battened at a 45-degree angle or ramps to be positioned to allow escape should animals become trapped.
- All site machinery and materials will be appropriately stored to avoid harm to the species, notably between July and November each year when extra care is needed to avoid potential impacts on pregnant females.

6 Further Surveys

6.1.1.1 No further surveys are required for development to commence. Should the Red Line Boundary or development plans change significantly prior to construction, a suitably qualified Ecologist should review the plans to reassess the potential effect on ecology.

7 Opportunities for Enhancement

7.1.1.1 The National Planning Policy Framework (NPPF) (2023) highlights the requirement for planning policies and decisions to conserve and enhance the natural environment.

7.1.1.2 Paragraph 180 states that this should be achieved by (in terms of this assessment only):

a) *protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

7.1.1.3 Specific enhancement recommendations for the site include the following:

- Bat and bird boxes could be placed on the new buildings or retained trees. A plan to show the locations of these boxes and the specifications should be produced by a suitably qualified ecologist once the layout is finalised.
- Planting of linear features such as hedgerows and trees where possible, to add commuting features within the site.
- The inclusion of 'hedgehog highways' to facilitate movement across the site. This includes holes of 13 x 13cm at the bases of fence panels, leaving a sufficient gap beneath gates and/or leaving brick spaces at the bases of brick walls.
- An ecologically sensitive planting scheme could be incorporated on the site to promote invertebrate use of the site, which could benefit local bat and bird species.

8 Conclusion

8.1.1.1 The PEA has met the objectives of the report, by demonstrating the following:

8.1.1.2 The major habitats identified on site included modified grassland, ornamental hedgerows, hardstanding and sparsely vegetated land and are detailed in Section 3.

8.1.1.3 Potential ecological constraints and subsequent mitigation recommendations to be completed prior and during the construction phase for nesting birds, common amphibians, commuting bats, hedgehog and badger are detailed in Section 5.4.

8.1.1.4 No further surveys are required to determine presence or absence and inform relevant mitigation requirements.

8.1.1.5 General ecological enhancements are listed within Section 7.

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Appendix 1 – Relevant Legislation

Legislation relating to European Protected Species (e.g. bats, otter, great crested newt)

European Protected Species and their resting places (e.g. bat roosts) are protected under the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CRoW) Act 2000, and the Conservation of Habitats and Species Regulations 2017.

The Conservation of Habitats and Species Regulations 2017 transpose the European Union's 'Habitats Directive' (Council Directive 92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora (EC Habitats Directive) into UK law. The Regulations provide for the designation and protection of 'European Sites', the protection of 'European Protected Species' (EPS), and the adaptation of planning and other controls for the protection of European Sites. EPS are listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2017.

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to:

- Intentionally kill, injure or take certain animals listed in Schedule 5;
- Intentionally or recklessly damage or destroy any structure or place which any wild animal specified in Schedule 5 uses for shelter or protection;
- Intentionally or recklessly disturb any such animal while it is occupying a structure or place which it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any structure or place which any such animal uses for shelter or protection.

In addition, under this legislation there are offences relating to sale, possession and control of wild animals listed in Schedule 5.

Under the Conservation of Habitats and Species Regulations 2017 it is an offence to:

- Deliberately capture, injure or kill any wild animal listed as a European Protected Species;
- Deliberately disturb wild animals of any such species in such a way as to be likely:
- to impair their ability:
    - to survive, to breed or reproduce, or to rear or nurture their young, or;
    - in the case of animals of a hibernating or migratory species, to hibernate or migrate, or;
- to affect significantly the local distribution or abundance of the species to which they belong.
- Deliberately take or destroy the eggs of such an animal, or;
- Damage or destroy a breeding site or resting place of such an animal.

In addition, under this legislation there are offences relating to possession, control sale and exchange of an EPS.

Great crested newt, otter and several species of bat are listed as a SoPI under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

Legislation for white-clawed crayfish

White-clawed crayfish are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this act it is an offence to:

- Intentionally take white-clawed crayfish from the wild; and,
- Sell or attempt to sell, any part of a white-clawed crayfish, alive or dead, or advertise that one buys or sells, or intends to buy or sell any part of a white-clawed crayfish.

The white-clawed crayfish is listed under Annex II and V of the EC Habitats Directive. The Conservation of Habitats and Species Regulations 2010 implements the European Union's 'Habitats Directive' (Council Directive 92/43/EEC (a) on the Conservation of Natural Habitats and of Wild Fauna and Flora) in Great Britain. Annex II requires that Special Areas of Conservation (SAC) are established specifically to conserve this and other listed species. In a SAC designated for white-clawed crayfish a precautionary principle must be applied when considering the potential impacts of any operations that may affect white-clawed crayfish and their habitat.

White clawed crayfish are listed as a SoPI under Section 41 of NERC Act 2006.

Legislation for amphibians (other than great crested newt)

Under the Wildlife and Countryside Act 1981 (as amended) the four widespread amphibian species, smooth newt (*Triturus vulgaris*), palmate newt (*Triturus helveticus*), common toad (*Bufo bufo*) and common frog (*Rana temporaria*) receive limited protection through section 9(5) only which makes selling, offering for sale, possessing or transporting for the purpose of sale (live or dead animal, part or derivative) an offence.

Common toad is listed as a SoPI under Section 41 of the NERC Act 2006.

Legislation relating to reptiles

All native reptile species have some degree of protection in the UK, through section 9(1) and (5) (specified in Schedule 5) of the Wildlife and Countryside Act 1981 (as amended). There are two different levels of protection afforded to reptiles through this legislation according to species and this is described in more detail below.

Full Protection

Sand lizard (*Lacerta agilis*) and smooth snake (*Coronella austriaca*) are afforded protection under The Conservation of Habitats and Species Regulations 2010 (are species of European importance) and are fully protected under the Wildlife and Countryside Act 1981 (as amended) and the CRoW Act (2000). The Conservation of Habitats and Species Regulations 2010 implements the European Union's 'Habitats Directive' (Council Directive 92/43/EEC (a) on the Conservation of Natural Habitats and of Wild Fauna and Flora) in Great Britain. The relevant sections of this legislation make it an offence to:

- Intentionally kill, injure or capture or take a reptile;
- Possess or control (live or dead animal, part or derivative);
- Deliberately (intentionally) or recklessly damage, destroy or obstruct access to a breeding site or any structure or place used for shelter or protection by a reptile;
- Disturb whilst the reptile is occupying such a structure or place; and

- Sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative).

Sand lizard and smooth snake are listed as a SoPI under Section 41 of the NERC Act 2006.

Protection against killing, injuring and trade

This level of protection under section 9 (parts 1 and 5) applies to the four widespread species of reptile, namely the common lizard (*Zootoca vivipara*), slow-worm (*Anguis fragilis*), grass snake (*Natrix natrix*) and adder (*Viper berus*). Only part of sub-section 9(1) applies, which make it an offence to:

- Intentionally kill or injure, and
- Sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative).

Grass snake, slow-worm and adder are all listed as SoPI under Section 41 of the NERC Act 2006.

Legislation relating to breeding birds

All birds, their nests and eggs are protected by the Wildlife and Countryside Act 1981 (as amended) and it is an offence, with certain exceptions, to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy the egg of any wild bird; and
- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building or is in, on or near a nest with eggs or young; or disturb the dependent young of such a bird.

Schedule 1 of the Wildlife and Countryside Act 1981 provides further protection for selected species (including peregrine falcon (Falco peregrinus), barn owl (Tyto alba), little ringed plover (*Charadrius dubius*) and black redstart (*Phoenicurus ochruros*) during the breeding season. If any person intentionally or recklessly disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or disturb dependent young of such a bird. That person shall be guilty of an offence.

A number of bird species are listed as SoPI under Section 41 of the NERC Act 2006.

Conservation status - Birds of Conservation Concern (Eaton et al. 2015)

The UK's leading bird conservation organisations have worked together on the third quantitative review of the status of the birds that occur regularly in the UK, updating the last review in 2011. The status of birds within the UK have been regularly monitored through a series of surveys, including the national Breeding Bird Survey, Common Bird Census, sea bird monitoring programs and wetland monitoring programs. The result of this review and continued monitoring is The Population Status of Birds in the UK, Birds of Conservation Concern 4: 2015.

Birds are assessed against criteria to place each species on one of three alert lists, red, amber or green. Red list species are considered to be of high conservation concern, being either globally threatened, having historical UK population declines, having a rapid population decline or breeding range contraction of 50% or more in the last 25 years.

Amber list species are considered to be of medium conservation concern as they meet one or more of the following criteria (but none of the red list criteria):Red listed for historical decline in a previous review but with substantial recent recovery (more than doubled in the last 25 years), a UK breeding range contraction of between 25% and 49%, a reduction of breeding or non-breeding population of 25-49% in the last 25 years, a 5-year mean of 1-300 breeding pairs in the UK, an unfavourable European conservation status, at least 50% of the UK breeding population found in 10 or fewer sites, or where the breeding population in the UK represents 20% or more of the European breeding populations.

Green list species are considered to be of low conservation concern. They include all regularly occurring species that do not qualify under any of the red or amber criteria are green listed. The green list also includes those species listed as recovering from Historical Decline in the last review that have continued to recover and do not qualify under any of the other criteria.

Legislation relating to badger

Badgers are protected under the Protection of Badgers Act 1992 (as amended) which makes it an offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so;
- intentionally or recklessly damage, destroy or obstruct access to a badger sett; and
- disturb a badger when it is occupying a sett.

These provisions have implications for construction or preparation works undertaken in the vicinity of an active sett and may be confounded by distance from the sett entrance. Any works resulting in ground penetration, vibration or noise near an identified badger sett entrance/s have the potential to disturb badgers and advice should be sought from a suitably experienced ecologist under such circumstances. If disturbance to an active sett is probable, then a licence may need to be obtained from Natural England before any works commence.

Legislation relating to water vole

The water vole is fully protected under Section 9 of the Wildlife & Countryside Act 1981 (as amended) through its inclusion in Schedule 5. The legal protection makes it an offence to:

- Intentionally kill, injure or capture or take a water vole;
- Possess or control (live or dead animal, part or derivative);
- Deliberately (intentionally) or recklessly damage, destroy or obstruct access to a breeding site or any structure or place used for shelter or protection by a water vole;
- Deliberately (intentionally) or recklessly disturb a water vole whilst occupying such as structure or place, and
- Sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative).

Water vole is listed as a SoPI under Section 41 of the NERC Act 2006.

Legislation relating to invasive plant species

Several non-native invasive plant species such as Himalayan balsam (*Impatiens glandulifera*), giant hogweed (*Heracleum mantegazzianum*), Japanese rose (*Rosa rugosa*), variegated yellow archangel

(*Lamiastrum galeobdolon*), rhododendron (*Rhododendron ponticum*) and Japanese knotweed (*Reynoutria japonica*) are listed under Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended), which makes it an offence to '...plant or otherwise cause the species to grow in the wild'. This includes spreading or transferring contaminated soil from one area to another.

Estate Managers and landowners have a duty to pro-actively treat knotweed outbreaks. Under the Natural Environment and Rural Communities Act 2006 (NERC), subsection 14ZA (1), makes it is an offence to sell, offer or expose for sale, or to have in one's possession or transport for the purpose of sale, any Schedule 9 animal or plant or anything from which such an animal or plant can be propagated, including rhizomes of Japanese knotweed. Under subsection 14ZA (2) it is also an offence to publish or cause to be published any advertisement for the purchase or sale of these animals and plants.

The Environmental Protection Act 1990 (EPA 1990) contains a number of legal provisions concerning controlled waste. Any Japanese knotweed contaminated soil or plant material that is intended for discard is likely to be classified as controlled waste.

The Environmental Protection (Duty of Care) regulations 1991 also imposes a 'duty of care' on persons concerned with controlled waste, which includes any materials incorporating Japanese knotweed including soil, grass cuttings, general wastes and ash arising from the burning of knotweed. The duty applies to any person, who produces, imports, carries, keeps, treats or disposes of controlled waste. Failure to appropriately dispose of any material containing Japanese knotweed may lead to prosecution under Section 33 and 34 of the EPA 1990 and Section 14 (2) of the Wildlife & Countryside Act 1981 (as amended).

If knotweed stands are to be treated with herbicides, The Control of Pesticides Regulations (1986) applies. These regulations require any person who uses a pesticide to take all reasonable precautions to protect the health of human beings, creatures and plants, safeguard the environment and in particular avoid the pollution of water. If pesticides are to be used in or near to a watercourse, the Environment Agency should be contacted, and approval must be sought (application to use herbicides in or near water).

Waste leaving the site must be handled responsibly and in accordance with the law at all stages between its production and final recovery or disposal. Waste must be transferred to an authorised person, who is either a registered waste carrier or exempted from registration by the Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991.

Additional legislation regarding the transport of Japanese knotweed contaminated materials is covered by the Hazardous Waste Regulations 2005 (HWR 2005). This contains provisions about the handling and movement of hazardous waste. Consignment notes must be completed when any hazardous waste is transferred, which includes details about the hazardous waste properties and any handling requirements. Untreated Japanese knotweed is not classed as hazardous waste, but material containing knotweed which has been treated with certain herbicides, may be classified as hazardous waste.

If any waste soil or knotweed is sent for landfill either before or after treatment, it must go to a landfill that is authorised to receive it.

The Hedgerows Regulations 1997

The Hedgerows Regulations 1997 were introduced to protect hedgerows of importance from destruction. However, the legislation does not apply to any hedgerow (even if it is within the list above) which is within or marking the boundary of the curtilage of a dwelling house.

For the Regulations to be applicable, the hedgerow must be at least 20 metres in length or, if less than 20 metres, it must meet another hedgerow at each end. A hedgerow is deemed to be important if it is more than thirty years old and meets at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

If a hedgerow which qualifies under the Regulations is to be removed, the landowner must contact the Local Planning Authority (LPA) in writing by submitting a hedgerow removal notice. The LPA then has a period of 42 days to decide whether or not the hedgerow meets the importance criteria of the regulations.

Appendix 2 - Habitat Map and Target Notes

Hierarchical code	Code	Meaning
Primary Code	G4	Modified Grassland
	H2b	Non-native and Ornamental Hedgerow
	U1b	Developed Land – Sealed Surface
	U1b5	Building
	U1c	Artificial unvegetated; unsealed surface
	U1f	Sparsely vegetated urban land
Secondary Code	81	Ruderal or ephemeral
	106	Mown
	516	Active Management
	518	Neglected
	532	Scattered Grass
	847	Introduced Shrub