

PRELIMINARY ECOLOGICAL APPRAISAL

APRIL 2024

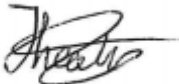
Russell Road Extra Care

Russell Road
Whalley Range
Manchester
M16 8AJ

U R B A N
G R E E N



QUALITY MANAGEMENT

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1 Executive Summary

- 1.1.1.1 Rowlinson Construction are proposing to develop land at Russell Road in Whalley Range, Manchester (hereafter referred to as 'the site'). The proposals include the development of a four-storey care home on the derelict site of the former Spire hospital along with associated external structures, parking bays and soft landscaping.
- 1.1.1.2 Urban Green have 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, when appropriate, which 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 current site is a derelict footprint of a demolished former Spire Hospital. The site comprises a large area of sparsely vegetated land with various unmanaged vegetative habitats bordering the site.
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 hardstanding and buildings, surrounded by scrub, lines of trees and tall ruderal vegetation.
Ecological Constraints	The following potential ecological constraints were identified during the assessment: • Twelve trees were assessed as needing further assessment for potential bat roosts. • Suitable habitats for nesting notable bird species. • Numerous invasive plant species are present throughout the site.
Recommended Ecological Mitigation	The following mitigation measures are recommended to minimise potential impacts due to the proposed development: • Precautionary Working Methods during the construction phase for badgers. • Lighting mitigation for commuting bats • Reasonable avoidance measures relating to hedgehog and common amphibians. • 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	As the twelve trees were identified as having 'Further Assessment Required' (FAR) suitability for potential roosts, further surveys in the form of roost inspection surveys are then required.
Recommended Ecological Enhancements	The National Planning Policy Framework (NPPF) (2023) 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.

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 Policies.

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 Whalley Range, 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)	01/03/2024	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/)	28/02/2024	Relevant statutory designated site citations.
JNCC (https://jncc.defra.gov.uk/)	19/02/2024	Information on European wildlife sites. Details of relevant Section 41 species and habitats.
Greater Manchester Ecology Unit	23/02/2024	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	28/02/2024	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 26th February 2024, by assistant ecologist Olivia Jones and ecologist Jake Healy, of Urban Green. The weather conditions were 10°C, sunny with scattered clouds (3/8 oktas), wind speed 4 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 Ground Level Tree Assessment

- 3.4.1.1 A Ground Level Tree Assessment (GLTA) was carried out on the site trees using close-focussing binoculars.
- 3.4.1.2 The PRA methodology is based on information contained within the Bat Conservation Trust (BCT) 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 Buildings and Trees for Roosting Bats (adapted from Collins, 2023)

Category of Suitability	Description	Further Survey Requirements
NONE	Either no Potential Roosting Features (PRFs) in the tree or highly unlikely to be any.	No further survey work required
FAR	Further assessment required to establish if PRFs are present in the tree.	Further PRF inspection surveys required with the aim of re-assessing suitability of PRFs.
PRF	A tree with at least one PRF present.	

3.4.2 Commuting and Foraging Bats

- 3.4.2.1 The site was assessed for its suitability for use by commuting and foraging bats.
- 3.4.2.2 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 4, which is used as a basis for determining the requirement for further surveys.

Table 4 – 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.

Category of Suitability	Typical Characteristics
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 boundary. The nearest waterbody was located approximately 770m southeast of the site, attributing to a lake within Alexandra Park. 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 February is a suboptimal time for carrying out UKHab Habitat Surveys due to being outside of the optimal plant growing season. Therefore, it is likely that some plants are present on the site but were not evident at the time of the survey and were not recorded. This is not considered to be a significant constraint with regards to the general UKHab Habitat Survey results as the habitats remained consistent with previous surveys, and due to the size and location of the site and limited extent of the habitats, it is considered very unlikely that any rare or priority plant species were missed.
- 3.6.1.4 It should not, however, be taken as providing a full and definitive survey of any protected species group.
- 3.6.1.5 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.
- 3.6.1.6 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.
- 3.6.1.7 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 **26th August 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 is located in Whalley Range in Greater Manchester, approximately 1.2km west of the A5103 and north of the A6010, and approximately 3.3km south of central Manchester. It is located within a densely populated urban area, with residential properties to all sides. It is situated on the site of the former Spire hospital (now demolished) and comprises an expansive area of hard-standing surrounded by trees and hedging.
- 4.1.1.2 Habitats within the surrounding area are limited to urban street planting and recreational parks, with Seymour Park, Alexandra Park, Hullard Park, Southwest Manchester Cricket Club and various allotments and sports/leisure fields all present within 1km of the site.
- 4.1.1.3 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. No statutory sites or non-statutory designated sites were located within 1km of the site.
- 4.2.1.2 The site does fall within the Impact Risk Zone of the following Statutory Sites, based on consultation with MAGIC:
 - Hollinwood Branch Canal Site of Special Scientific Interest (SSSI)- The canal lies on glacial boulder clays overlying Carboniferous Westphalian Coal Measures. The canal is the best example of a mesotrophic standing water system in Greater Manchester and Merseyside. The main habitats are open water, swamp, and tall fen. Damp unimproved neutral grassland occurs on the eastern bank and unimproved neutral grassland, scattered trees and shrubs and a hedge to the west. As a consequence of the high-water quality and profile of the canal, the open water plant communities are exceptionally diverse and contain several regionally and nationally rare species. Broad-leaved pondweed is a constant and dominant species throughout but is often co-dominant with any of watersoldier (*Stratiotes aloides*), frogbit (*Hydrocharis morsus-ranae*), arrowhead (*Sagittaria sagittifolia*), rigid hornwort (*Ceratophyllum demersum*), Canadian waterweed and water-starwort spp. Other commonly occurring species include reeds, floating water-plantain (*Luronium natans*), alga (*Nitella flexilis*), moss (*Fontinalis antipyretica*) and a number of pondweeds including the red, grass-wrack, long-stalked and hairlike pondweeds.
 - Rochdale Canal (SSSI)- The Rochdale Canal contains important habitats for submerged aquatic plants and emergent vegetation, including extensive colonies of the nationally scarce SAC species floating water plantain. The site also supports a diverse assemblage of aquatic flora, notably its assemblage of pondweeds, (*Potamogeton* spp); the nine species of which found in the canal represent a balanced community which reflects the quality of water.
 - Brookheys Covert (SSSI)- The majority of the site comprises well-established pedunculate oak-hazel-ash woodland with a large number of small pools. Woodland of this type is uncommon in G.M.C. and the site contains a wide range of woodland and

wetland habitats which make it the most diverse example in the county. Its close proximity to a heavily populated area makes Brookheys Covert a valuable educational site.

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 One record of Cinnabar (*Tyria jacobaeae*) was returned, located approximately 600m southwest of the site in 2020.

4.3.1.2 This species is listed on Section 41 of the Natural Environment and Rural Communities Act (S41 NERC) 2006.

4.3.2 Amphibians

4.3.2.1 Two records of Common Toad (*Bufo bufo*) were received, with the closest record approximately 800m northwest of the site from 2010. Common toad is listed on S41 of NERC Act (2006).

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 196 records of protected or notable birds were returned within 1km of the site as detailed in Table 5.

Table 5 – Protected or notable birds recorded within 1km

Scientific Name	Common Name	Protection	Year	Closest approximate distance to site (m)
<i>Pyrrhula pyrrhula</i>	Bullfinch	BoCC5**, S41*****	2011-2012	520m south
<i>Prunella modularis</i>	Dunnock	BoCC5**, S41*****	2022	570m northwest
<i>Ardea cinerea</i>	Grey Heron	LBAP	2014	820m southeast
<i>Larus argentatus</i>	Herring gull	BoCC5*, S41*****	2012-2014	830m east
<i>Passer domesticus</i>	House sparrow	BoCC5*, S41*****	2015	230m south
<i>Acanthis cabaret</i>	Lesser redpoll	BoCC5*, S41*****	2014	840m east
<i>Falco peregrinus</i>	Peregrine	Sch.1****	2014	500m southeast
<i>Turdus philomelos</i>	Song thrush	BoCC5**, S41*****	2015	230m south
<i>Sturnus vulgaris</i>	Starling	BoCC5*, S41*****	2022	280m southwest
<i>Passer montanus</i>	Tree sparrow	BoCC5*, S41*****	2012	530m south

* Listed Red on the Bird of Conservation Concern 5 (2021)

** Listed Amber on the Bird of Conservation Concern 5 (2021)

*** Listed black on the Bird of Conservation Concern 5 (2021)

**** Wildlife & Countryside Act (Sch 1, 5 & 8)

***** Listed on Section 41 (NERC Act, 2009).

4.3.4 Bats

- 4.3.4.1 Fifty-four records of bats were returned during the data search, including records of Pipistrelle bat species (*Pipistrellus* sp), unidentified bat species (*Chiroptera* spp), Common Pipistrelle (*Pipistrellus pipistrellus*), Brown Long-eared (*Plecotus auritus*), Daubenton's (*Myotis daubentonii*), Noctule (*Nyctalus noctula*) and Soprano Pipistrelle (*Pipistrellus pygmaeus*). All species returned are listed under Schedule 2 of the Habitats and Species Regulations Act 2017 (HabRegs), Wildlife and Countryside Act (WCA) (1981) and are a priority species under the Greater Manchester Local Biodiversity Act (LBAP). Soprano pipistrelle, brown long-eared and noctule are all listed under S41 NERC.

Roosts

- 4.3.4.2 Six records of bat roosts were returned in the data search, with the closest record attributing to a pipistrelle species approximately 50m south of the site in 2004.

Field signs

- 4.3.4.3 Forty-eight records of bat field signs were returned in the data search, with the closest record attributing to a common pipistrelle approximately 50m east of site in 2016.
- 4.3.4.4 MAGIC also detailed the presence of one granted EPSL within 1km of the site (Ref:2018-35287-EPS-MIT). This licence was to allow damage and destruction of a resting place for common pipistrelle and soprano pipistrelle between 2018 - 2019. It was located approximately 900m east of the site.

4.3.5 Hedgehog

- 4.3.5.1 Thirty-one records of hedgehog (*Erinaceus europaeus*) were returned with 1km of the site, with the closest records located approximately 30m east of the site from 2021 and 2022. Hedgehog are listed on S41 of the NERC Act (2006).

4.3.6 Badger

- 4.3.6.1 Three records of badger were returned in the data search, with the closest approximately 650m southeast of the site in 2020. Badger are protected under the Protection of Badgers Act (1992).

4.3.7 No Records Returned

- 4.3.7.1 The data search returned no records for:
- Invasive non-native species
 - Vascular Plants
 - Reptiles
 - Great crested newt
 - Hazel dormice (*Muscardinus avellanarius*)
 - Otter
 - Red squirrel (*Sciurus vulgaris*)
 - Water vole
 - White-clawed crayfish

4.4 Field Survey

- 4.4.1.1 The site habitats and accompanying Target Notes are presented in the UKHab Habitat Map in Appendix 3.
- 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 3.

4.4.2 Sparsely vegetated urban land (u1f)



Photograph 1 – Hardstanding surface with brick wall lining the northern aspect.



Photograph 2 – View of the site from the entrance at Carlton Road (southeast).



Photograph 3- Northern section of hardstanding surface.



Photograph 4- Northern section of site, with a view of one of the scattered buddleja.



Photograph 5- Southwestern area of site with a former carpark lined with some introduced shrub.



Photograph 6- Southeastern aspect of the site with an entrance to Russell Road.

4.4.2.1 The entirety of the site centre is covered with the derelict footprint of the former hospital building, its associated car parks, access road, and pavements (Photographs 1,2 and 5). Moss infrequently grows on some areas of land, with particular dominance around former urban garden. Butterfly-bush (*Buddleja davidii*) are frequent throughout the site, thriving within the scattered areas of open ground (Photographs 4 and 5). Some buddleja are accompanied by unmanaged Bramble (*Rubus fruticosus*), Bracken (*Pteridium sp.*) and various young, scattered trees of mixed species.

4.4.3 Built-up areas and gardens (u1) and Introduced Shrub (847)



Photograph 7- View of the northwestern end of the site.



Photograph 8- Small area of foliage northwest of the site.



Photograph 9- Area of scrub with a young tree.



Photograph 10- Area of scrub with a young cherry tree.



Photograph 11- Small Cabbage-palm with adjacent dead cabbage-palm leaves.



Photograph 12- Large Rhododendron at the corner of a line of car parking spaces southwest of the site.



Photograph 13- Large rhododendron south of the site.



Photograph 14- Abundance of Ivy blanketing the southern corner of the site.



Photograph 15- View of the northern-most corner of the site

4.4.3.1 Various parcels of vegetation are scattered throughout the site (photographs 7-14). Butterfly-bush, bramble, and Ivy (*Hedera helix*) are dominant throughout the site. Rhododendron (*Rhododendron sp.*) (TN2) and Cotoneaster (*Cotoneaster sp.*) (TN1) are prevalent throughout the site, however the specific species could not be determined. Other species identified throughout include Spreading Oleaster (*Elaeagnus umbellata*), Holly (*Ilex aquifolium*), Laurustinus (*Viburnum tinus*), Cherry Laurel (*Prunus laurocerasus*), Cabbage-palm (*Cordyline australis*), Box-leaved Honeysuckle (*Lonicera pileata*), Snowberry

(*Symphoricarpos albus*), Coralberry (*Symphoricarpos orbiculatus*), Common Spike-rush (*Eleocharis palustris*) and Eared Willow (*Salix aurita*).

- 4.4.3.2 The northern-most corner of the site comprises a large area of vegetation (photograph 17), comprising a dense mat of ivy with a scrubby understorey layer. Species identified include rhododendron, cotoneaster sp., self-set Oak (*Quercus*) saplings, Bilberry (*Vaccinium myrtillus*) and holly with a covering of ivy.

4.4.4 Modified Grassland (g4)



Photograph 16- View of the modified grassland within the centre of the site.

- 4.4.4.1 A stretch of modified grassland (photograph 15) is present within the centre of the site, with a mature tree to the southern end. This area comprises Red Fescue (*Festuca rubra*), an *Agrostis* species (*Agrostis* sp.), Yorkshire Fog (*Holcus lanatus*), Cocks Foot (*Dactylis glomerata*), St John's wort (*Hypericum perforatum*), ivy, Leaved Cyclamen (*Cyclamen hederifolium*), Dandelion (*Taraxacum*), Herb Robert (*Geranium robertianum*), Daisy (*Bellis perennis*), Cotton lavender (*Santolina chamaecyparissus*), a Laurel species (*Laurus* sp.), Ragwort (*Senecio jacobaea*) and buddleja.

4.4.5 Bramble Scrub (h3d)



Photograph 17- View of the dense bramble scrub at the northern corner of site.

- 4.4.5.1 To the northern corner of the site lies a section of dense bramble scrub (photograph 17) with some intermittent Soft Rush (*Juncus effusus*) and rhododendron.

4.4.6 Non-native and Ornamental Hedgerow (h2b)



Photograph 18- Hedgerow located to the south of the site which runs across the southern corner to the southeastern corner of site.



Photograph 19- Continued hedgerow from photograph 18, situated at the eastern corner of the site.

- 4.4.6.1 To the southern boundary of the site lies a line of dense unmanaged ornamental non-native hedgerow (Photograph 18) consisting of laurustinus, holly, Garden Privet (*Ligustrum ovalifolium*), Snowdrop (*Galanthus sp.*), Spotted laurel (*Aucuba japonica*), ivy, holly, and flowering currant (*Ribes sanguineum*). Spanish Bluebell (*Hyacinthoides non-scripta x hispanica* = *H. x massartiana*) (TN3) is prevalent throughout the hedgerow understory.
- 4.4.6.2 Photograph 19 shows the continuation of the hedgerow at the eastern corner of the site, which is separated from the southern hedgerow by the site entrance gate. This section of hedgerow comprised of a Rose species (*Rosa sp.*), snowberry, cherry laurel, and a large rhododendron.

4.4.7 Line of trees (w1g 33 and w2c)



Photograph 20- Line of trees on the western border onsite.



Photograph 21- Line of trees behind the dense Laurustinus to the west of site.



Photograph 22- Line of trees bordering the southwestern corner.



Photograph 23- Line of Lawson Cypress to the north of site.

- 4.4.7.1 Lines of trees border the entire north, west and half of the southern aspect of the site. Species include Crab Apple (*Malus sylvestris*), Elder (*Sambucus nigra*), oak, Sycamore (*Acer pseudoplatanus*), Lawson Cypress (*Chamaecyparis lawsoniana*), Lime (*Tilia sp.*), Turkey Oak (*Quercus cerris*), Beech (*Fagus sylvatica*), Hornbeam (Mixed species), Horse Chestnut (*Aesculus hippocastanum*), Norway Maple (*Acer platanoides*) and other mixed species. More details of these trees can be found in the associated arboriculture reports.
- 4.4.7.2 A line of tall Lawon's Cypress (*Cupressus lawsoniana*) borders a small section of the northern aspect of the site. The trees are unmanaged with no obvious other species within the line.

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 (*Austropotamobius pallipes*) have been discounted from assessment as no aquatic habitats are located on site or within proximity. The closest aquatic habitat is located approximately 773m southeast from site, relating to a waterbody within Alexandra Park.
- 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 No notable native species were found onsite, and no records of notable vascular plants were returned in the data search. The site has a range of unmanaged ruderal vascular plant species and bramble scrub. These habitats exhibit minimal potential to recruit new species. The site has an abundance of invasive species, particularly rhododendron. If the rhododendron proves

to be an invasive species, there is evidence for allelopathic interactions between rhododendron and other plants. These interactions may inhibit the establishment and growth of other species of plant.

- 4.5.2.2 Overall, the time of year made it difficult to accurately identify possible notable species, however it is very unlikely that notable vascular plants are present onsite.

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. Only one record of notable invertebrate (Cinnabar) was returned within the data search. It is anticipated common species will be present due to the minimal management 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 No records of great crested newts, granted ESPLs, or great crested newt pond surveys were returned within 1km of the site in the data search. The dominance of anthropogenic barriers between the site and any waterbodies in the wider environment deems it unlikely that great crested newt would traverse to the site.

- 4.5.4.3 The site comprised a mosaic of unmanaged 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.

- 4.5.4.4 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 hardstanding areas, which lack the structure and habitat quality to support the species group. The scrub habitats could provide some terrestrial cover for the species, though these are generally confined to the boundaries.

- 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 **Ground Nesting** – The hardstanding main body of the site, and the small area of modified grassland, are deemed as unsuitable for ground nesting birds, however, the small areas of introduced shrub throughout the site's built-up areas and garden, along with the unmanaged vegetation bordering the site, ornamental hedgerow, lines of trees and the northern area of dense bramble scrub, provides suitable habitat for ground nesting birds. This being said, the level of disturbance offsite from the main road lining the offsite perimeter of the site, along with human disturbance from the adjacent primary school (Our Lady's R C Primary School), it is thought that ground nesting is likely to be limited.

- 4.5.6.2 **Passerine** - The site offers suitable habitats for nesting birds. Several bird species were observed during the site visit within the site extent, including Blue tit (*Cyanistes caeruleus*), Long-tailed tit (*Aegithalos caudatus*) and Wren (*Troglodytes troglodytes*). As a result, it is likely that birds use these habitats to nest in during the nesting season.
- 4.5.6.3 **Wintering** – The site is largely unsuitable to support overwintering birds as they require an abundant source of food and nesting materials. With the site being predominantly hardstanding and situated in a high-disturbance urban area with limited foraging resources, it is unlikely that wintering birds will utilise the site. The site is likely not large enough to support over wintering birds.
- 4.5.6.4 **Birds of Prey** – Birds of prey have been noted within 1km of the site from the data search, with records of peregrine in 2014. The unmanaged scrub could provide some foraging suitability, along with large trees for perching. However, with larger more suitable areas within the wider environment, it is unlikely that birds of prey regularly utilise the site. Birds of prey cannot be discounted, there is a low possibility of birds of prey.

4.5.7 Bats

- 4.5.7.1 A GLTA was completed on all trees located on site and adjacent. Please refer to Appendix 2 for the results of the PRA and imagery of Potential Roosting Features (PRF) identified during the survey.
- 4.5.7.2 In summary, twelve trees were assessed as having 'FAR' potential. These trees are referenced within the accompanying arboriculture reports as: T2, T4, T5, T7, T13, T21, T23, T27, T28, G26, two trees within tree group G15.
- 4.5.7.3 The habitats on site are anticipated to provide low value for foraging bats due to unmanaged habitats which will attract invertebrate prey. Linear features are located within the site (lines of trees, and ornamental hedgerow to the southern boundary) which may provide suitable commuting conditions. The treelines are not directly connected to significant linear features but may provide suitable local commuting habitat.
- 4.5.7.4 The site has the potential to support roosting bats whilst the unmanaged habitats may provide foraging value and the linear features provide commuting value.

4.5.8 Hedgehog

- 4.5.8.1 The dense scrub, lines of trees, ornamental hedgerow, and built-up garden habitats will provide suitable cover and foraging habitats for the species. The data search also returned 31 records of hedgehog within 1km of the site, with the closest being approximately 30m of the site.
- 4.5.8.2 Hedgehog are anticipated to be present within the site.

4.5.9 Badger

- 4.5.9.1 No field signs or suitable sett building habitat were found during the site visit, and three records of badger were returned within 1km of the site.
- 4.5.9.2 The site could provide potential foraging opportunities; with the scrub and built-up gardens potentially containing fruiting species and attracting other foraging opportunities. Due to the size of the site and the habitats being limited to the boundaries of the site, the site is not suitable for sett building. There is no connectivity between the site and the wider habitats to act as a wildlife corridor, which would promote the presence of badger.
- 4.5.9.3 Badger may rarely use the site for foraging.

4.6 Invasive Species

4.6.1 Flora

- 4.6.1.1 Cotoneaster, rhododendron, and Spanish bluebell (TN1, TN2 and TN3, respectively) were present on the site during the field survey. Spanish bluebell is listed under Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) as (an) invasive non-native species. It was not confirmed whether the rhododendron and cotoneaster onsite were a schedule 9 species, therefore will need a specialist to visit the site and confirm.
- 4.6.1.2 The specific species of the rhododendron and cotoneaster plants could not be identified, and so a professional will need to be consulted with to confirm whether these are an invasive species.
- 4.6.1.3 It should be noted that some invasive non-native plants are very fast spreading and can have adverse effects on other species.

4.6.2 Fauna

- 4.6.2.1 Two sightings of non-native, invasive Grey Squirrel were observed onsite. The lines of trees and surrounding urban flora is suitable for habitat for grey squirrel so occasional presence on site is to be expected. The site falls within the boundary for Lancashire, Merseyside, Greater Manchester, and Cheshire Squirrel Initiative.

5 Ecological Constraints and Recommended Mitigation

5.1 Proposed Development

- 5.1.1.1 Rowlinson Construction are proposing the development of a four-storey care home on the derelict site of the former Spire hospital along with associated external structures, parking bays and soft landscaping.

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. This is further supported by the urban-on-urban development causing limited impact to existing habitat.
- 5.2.1.2 No non-statutory or statutory sites are located within 1 km of the site boundary.

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. The lines of trees and scrub are of highest value for predominantly foraging purposes.

5.3.2 Broadleaved Woodland and Trees

- 5.3.2.1 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.
- 5.3.2.2 The fencing will be in accordance with BS 5837:2012 *Trees in Relation to Design, Demolition and Construction: Recommendations*.

- 5.3.2.3 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.

5.3.3 Modified Grassland

- 5.3.3.1 The small area of modified grassland comprises a very limited number of species diversity, has a lack of varying sward height and only covers a very small part of the site. Therefore, this area has very low value for species. Removal considerations of this area is limited to the singular tree to the southern end of the grassland (removal considerations for trees are detailed within section 5.3.2).

5.4 Flora and fauna

5.4.1 Vascular Plants

- 5.4.1.1 No protected species of plant were identified during the site visit, however that is not to say they are not present at all. The time of year could have been a factor which prevented the appropriate identification of potential protected species as they will have not flowered yet. It is unlikely protected species are onsite due to the abundance of potential invasive species, however retained habitats should be appropriately fenced off and landscape proposals should include a range of native flowering plants to enhance biodiversity.

5.4.2 Invertebrates

- 5.4.2.1 A limited number of notable invertebrates were returned in the data search within 1km (one record of cinnabar) therefore it is unlikely that notable invertebrates are present onsite. Common species are anticipated to be present onsite, therefore native planting is highly recommended to alleviate the impact of invertebrate habitat removal.

5.4.3 Amphibians

- 5.4.3.1 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.
- 5.4.3.2 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.

5.4.4 Birds

- 5.4.4.1 Where required, scrub 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.
- 5.4.4.2 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.

5.4.5 Bats

Roosting Bats

- 5.4.5.1 As stated in Section 3.4.3, twelve trees were assessed as having bat roosting potential.
- 5.4.5.2 As such, further bat surveys are recommended to confirm roosting suitability and provide a more accurate roosting assessment for bats.
- 5.4.5.3 Trees that were found to be covered in live ivy, which are to be impacted or removed by the development, should have the ivy severed from the base of the stem and allowed to die off prior to reinspection. Trees this applies to are: T2, T4, T5, T13, T23, T21, T27 and G26.

Foraging and Commuting bats

- 5.4.5.4 The site was assessed as being of low 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.
- 5.4.5.5 Slow-flying species such as brown long-eared and Myotis species, which are known to be in the local area, are sensitive to lighting and may be impacted by the proposed development, should no mitigation for lighting be considered.
- 5.4.5.6 Lighting mitigation should follow the guidance outlined in the Institute for Lighting Engineers document “Guidance for the Reduction of Obtrusive Lighting” (2005) and BCT’s “Bats and Artificial Lighting in the UK” (2018).
- 5.4.5.7 Construction lighting should not be directed towards retained and surrounding habitats including the broadleaved woodland and grassland. The construction lighting may impact bats which are sensitive to light. Directional lighting will be achieved by angle and orientation of beam, use of a cowl, louvre or other light shield, or a combination of these.
- 5.4.5.8 An External Lighting Scheme had not been produced on the writing of this report. As such, the following recommendations are to be considered within the scheme during its condition, to minimise impacts of lighting. The recommendations are as follows:
 - Keep site lighting to minimum levels.
 - Luminaries should lack UV elements and preferably LED lighting with a warm white light should be used over cool white light (ideally <2700Kelvin).
 - Lighting should feature peak wavelengths greater than 550nm.
 - Internal lighting should be positioned away from windows to minimise light spill, where appropriate.
 - Light placement should be downward facing to prevent excess horizontal or vertical light spill.
 - The use of integrated fittings such as cowls, shields, louvres, and hoods, that effectively contain light spill from unintended areas, where appropriate.
 - The use of hard landscaping features to block light and create dark corridors.
 - Avoid illuminating any suitable retained bat habitats, particularly the trees, that are potential commuting and foraging habitat for bats.

- Use of timed security lights should be set on motion-sensors and using short, 1-minute timers, to minimise light use, where appropriate.
- Column heights of lighting can be considered to minimise light spill.

5.4.6 Hedgehog

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

5.4.7 Badgers

- 5.4.7.1 It is not anticipated the proposed development will impact the species, as they are unlikely to extensively utilise the site. It is considered that the badgers located within the local area are generally tolerant to anthropogenic disturbance as the site is located within a residential area. Badgers are only anticipated to use the site very infrequently as foraging habitat.
- 5.4.7.2 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.

5.5 Invasive Species

- 5.5.1.1 Spanish bluebell were confirmed to be onsite (TN3). It is not an offence to have Spanish bluebell on existing land, however they are listed as a Schedule 9 species of the WCA (1981), and it is an offence to plant them and to allow them to spread into the wild.
- 5.5.1.2 It has been deemed possible that further non-native invasive flora species may have been identified during the site walkover (Rhododendron and cotoneaster).
- 5.5.1.3 As such, it is recommended, prior to the development, that an invasive species specialist should be contracted to identify and map the extent of invasive species present within the site and produce a detailed management plan for the removal and eradication of such species onsite.

6 Further Surveys

6.1 Bats

- 6.1.1.1 As the twelve trees (listed in section 4.5.7) were identified as having 'Further Assessment Required' (FAR) suitability for potential roosts, further surveys in the form of PRF surveys are then required.
- 6.1.1.2 Should roosting potential be confirmed in trees proposed for removal, further inspections throughout the duration of the survey season may be incurred to confirm presence or absence of roosting bats. All surveys should be undertaken in accordance with the current BCT guidance (Collins, 2023).
- 6.1.1.3 The surveys should be completed between May – September (inclusive). It is recommended at least one survey is completed during the bat maternity season which is generally defined as June to July.
- 6.1.1.4 If bats are identified roosting within the trees on site, a minimum of three surveys will be required to inform a Natural England EPSL. The surveys will identify what bat roosts are present and will in turn clarify what mitigation will be required as part of the ESPL. Roost provision, lighting and timescales will be considered as part of the licence.
- 6.1.1.5 An EPSL can only be submitted once full planning permission has been granted and all wildlife conditions have been discharged.

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 / 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 withing 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 bramble scrub, lines of trees, modified grassland, sparsely vegetated land, urban, built-up areas and gardens and are detailed in Section 4.4.
- 8.1.1.3 Potential ecological constraints and subsequent mitigation recommendations to be completed prior and during the construction phase are detailed in Section 5.
- 8.1.1.4 Further bat surveys are required to determine presence or absence and inform relevant mitigation requirements, detailed in Section 6.
- 8.1.1.5 General ecological enhancements are listed within Section 7.

9 References

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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 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 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 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 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 (*Lamium galeobdolon*), rhododendron 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 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 – Preliminary Roost Assessment

Building Reference	Description	Evidence	Category of Suitability
T2	Mature Crab Apple (<i>Malus sylvestris</i>) tree with tear wound on lower stem. No cavities present. Sparse covering of ivy.		FAR

Building Reference	Description	Evidence	Category of Suitability
T4	Mature Sycamore (<i>Acer pseudoplatanus</i>) with thick ivy clad stem that prevents detailed inspection, which may hide suitable PRFs.		FAR

Building Reference	Description	Evidence	Category of Suitability
T5	Sycamore, again, thick covering of ivy which could hide potential PRFs.		FAR

Building Reference	Description	Evidence	Category of Suitability
T7	Lime tree (<i>Tilia sp.</i>), with thick covering of ivy which could be covering PRFs.		FAR

Building Reference	Description	Evidence		Category of Suitability
G15	Group of two trees with small cavities. One tree is a Beech (<i>Fagus sylvatica</i>) tree, the other a Horse Chestnut.			FAR
T13	Sycamore tree with upward facing pruning wound potentially leading into cavity with dead limb on eastern aspect also leading into potential cavity.			FAR

Building Reference	Description	Evidence	Category of Suitability
T23	Lime tree covered in Ivy		FAR

Building Reference	Description	Evidence	Category of Suitability
T21	Hornbeam (<i>Carpinus betulus</i>) with ivy covered stem preventing detailed inspection.		FAR

Building Reference	Description	Evidence	Category of Suitability
T27	Horse Chestnut covered with ivy.		FAR

Building Reference	Description	Evidence	Category of Suitability
T28	Norway Maple with various pruning wounds that may lead into cavity covered by dead ivy.		FAR

Building Reference	Description	Evidence	Category of Suitability
G26	Horse chestnut with a covering of ivy.		FAR

Appendix 3 – Habitat Map and Target Notes

Hierarchical code	Code	Meaning
Primary Code	u	Urban
	u1	Built-up areas and gardens
	u1f	Sparsely vegetated land
	g4	Modified Grassland
	h2b	Non-native and ornamental hedgerow
	h3d	Bramble Scrub
	w1g	Other Broadleaved Woodland
	w2c	Other Coniferous Woodland
Secondary Code	12	Scattered Bracken
	32	Scattered trees
	33	Line of trees
	82	Vacant or derelict land
	518	Neglected
	519	Abandoned
	521	Unmanaged
	523	Non-native
	524	Invasive non-native species
	847	Introduced shrub

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Legend

- Red Line Boundary
- Non-native and ornamental hedgerow
- Other broadleaved woodland
- Other coniferous woodland
- Bramble scrub
- Built-up areas and gardens
- Modified grassland
- Sparsely vegetated urban land
- Urban - Introduced shrub
- FAR
- Urban Tree
- Target Note
 - TN1 - Cotoneaster
 - TN2 - Rhododendron
 - TN3 - Spanish bluebell



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