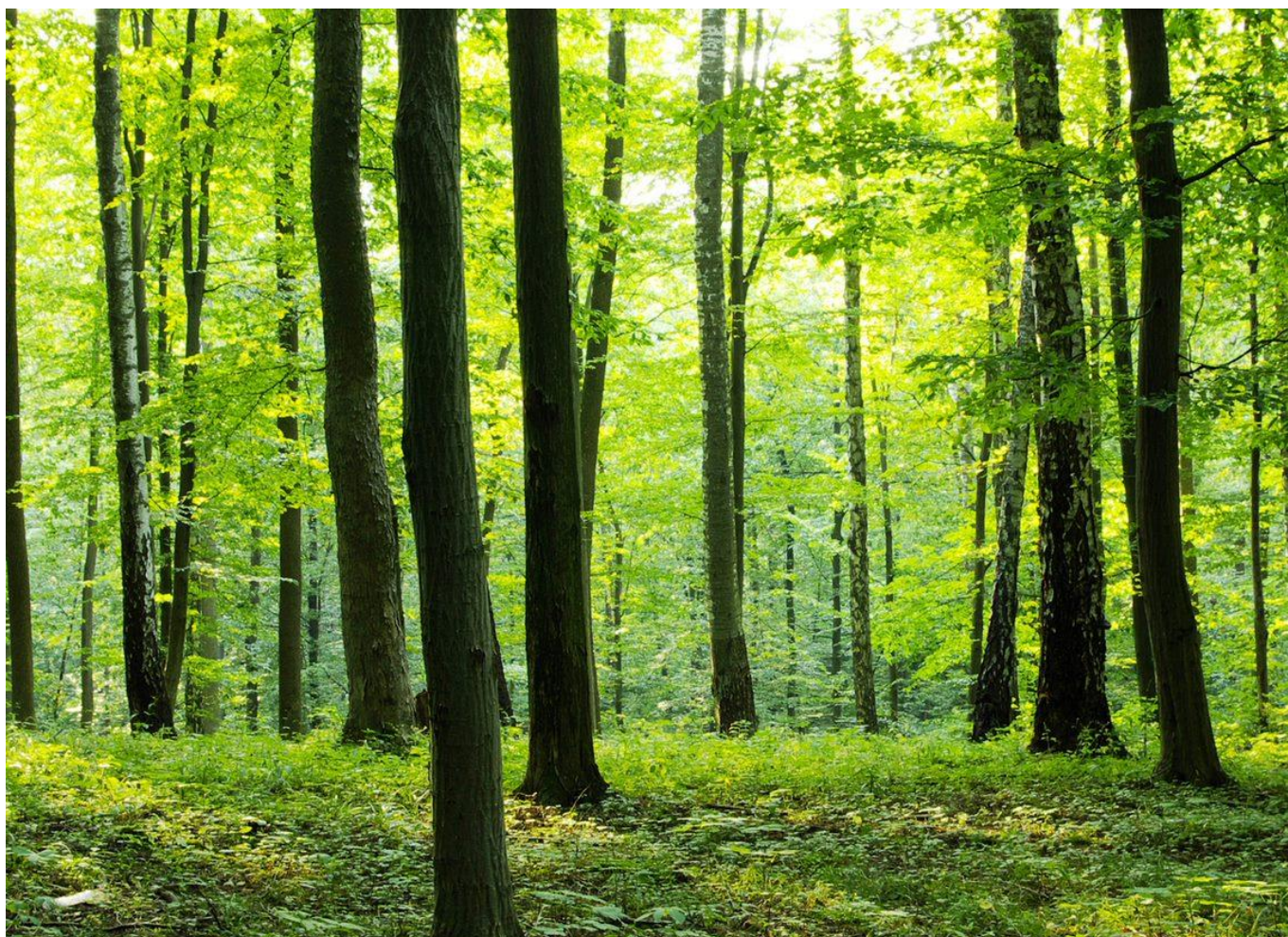




Manchester University NHS Foundation Trust

Withington Community Hospital

Preliminary Ecological Appraisal Report

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JUNE 2023

RSK GENERAL NOTES

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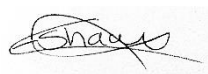
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Date:

14/06/2023

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14/06/2023

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EXECUTIVE SUMMARY

This report presents the results of a preliminary ecological appraisal (PEA) carried out on 11 January 2023 at Withington Community Hospital, Withington, Didsbury in Greater Manchester (OS Grid Reference: SJ 83736 92016). This report has been produced to inform works associated with the proposed community diagnostics centre at Withington Community Hospital, and the PEA is required to inform planning and design of the scheme. An updated walkover was undertaken on 11 May 2023 to identify any additional invasive species present on the site and update the species list.

The surveys recorded a number of habitats on the site including a building, mixed scrub and scattered trees, introduced shrubs and sealed surface (hardstanding). These habitats support opportunities for protected and notable species including birds, bats, and hedgehog. A preliminary roost assessment for bats was undertaken on the external walls of the building adjacent to the proposed development.

The quality of roosting habitat within the building was assessed as low. However, all features are small (weep holes, gaps in mortar) and only suitable to support individual bats, occasionally. Eight trees on the site were identified as having features suitable for roosting bats. All boundary trees, including those with features suitable for roosting bats will be retained and the building will not be directly affected and as such all features will be retained. However, it is recommended that reasonable avoidance measures are implemented throughout the duration of the development to avoid indirect impacts on roosting bats within the building and trees, these are outlined within Section 5 of the report.

Wall Cotoneaster (*Cotoneaster horizontalis*.) is present throughout the area of dense scrub on the site. Cotoneaster is listed under schedule 9 of the Wildlife and Countryside Act 1981 (as amended). It is illegal to cause the spread of these species in the wild. It is recommended that invasive species are treated and/or removed by a specialist contractor to eradicate them from site and prevent their spread.

Furthermore, the following mitigation measures required include:

- Mitigation measures to protect nesting bird (e.g. checks and supervision by an ecologist)
- Precautionary working measures to protect hedgehogs (*Erinaceus europaeus*) (e.g. covering excavations);
- A sensitive lighting plan.

These measures are detailed within Section 5 of this report with potential opportunities for enhancement also identified.

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1.0 INTRODUCTION

1.1 Purpose of this report

- 1.1.1 This report presents the results of a preliminary ecological appraisal (PEA), comprising a background data search (BDS), UK habitat mapping (UKHAB), with assessments for protected or otherwise notable species at Withington Community Hospital, Withington, Didsbury, Greater Manchester (OS Grid Reference: SJ 83736 92016). The survey area included the land within the red-line boundary (the site – as *Figure 1*), plus adjacent land up to 30m where access allowed.
- 1.1.2 The report identifies ecological constraints relevant to the project, specifies any further survey or mitigation requirements (e.g. for any ecological impact assessment), gives recommendations for avoidance and protection through design changes, and suggests opportunities for ecological enhancement.
- 1.1.3 This report has been produced as part of the preparation and brief stage of the development and aims to be used to influence site preparation works, layout and, where necessary, strategic planning decisions.

1.2 Landscape context

- 1.2.1 The proposed site boundary is c.0.9 ha, and includes sections of mixed scrub, scattered trees, introduced shrubs and sealed surfaces (hardstanding).
- 1.2.2 The site is bordered to the north by the current hospital building and car park, to which the proposed new building will connect. The site is bordered by major roadways and residential dwellings to the east and the south. Buccleuch Lodge, an intermediate care home surrounded by amenity grassland is located to the west of the site. The wider landscape is urban with the residential of areas Withington, West Didsbury, East Didsbury and Wythenshawe. There are pockets of greenspace present, including parks, playing fields and vegetated railway corridors.

1.3 Development proposals

- 1.3.1 This report has been produced to inform works associated with development of a two-storey building comprising a Community Diagnostics Centre (use class E(e)), with associated external landscaping, patient and delivery drop off area and 6 no. accessible parking spaces."

1.4 Validity of data

- 1.4.1 According to Chartered Institute of Ecology and Environmental Management (CIEEM) advice (CIEEM 2019), survey data are valid for a period of 12 to 18 months from the date of the survey. The report highlights any circumstances where data may be valid for less than 18 months. Between 18 months and 3 years a professional ecologist will need

to undertake a site visit and may also need to update desk study information (effectively updating the PEA) and then review the validity of the report.

2.0 METHODS

2.1 Overview

- 2.1.1 The PEA was carried out in line with guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017); it therefore included:
- A desk study (here called a background data search (BDS)), which included records of designated sites, protected and notable species; a review of aerial photographs; obtaining information from the DEFRA and JNCC websites, the local authority website; and requesting data from the local records centre; and
 - A field survey that informed habitat mapping, an assessment of the possible presence of protected or priority species and the likely importance of habitat features.
- 2.1.2 The PEA report includes an ecological description of the site and information about species that may occur there. Notes and mapping of any incidental sightings of invasive non-native plant species and protected or priority fauna species are also provided.
- 2.1.3 The survey was carried out on the 11 January 2023 by Emily Shaw and assisted by Molly Meadows of RSK Biocensus Ltd. Emily is a senior ecological consultant with over five years' experience in ecological consultancy. She is an associate member of CIEEM and is highly experienced in carrying out PEAs. Emily has botanical skills rated at a Field Identification Skills Certificate (FISC) level 4 and holds a class 2 bat licence from Natural England (licence number 2019-39350-CLS-CLS).
- 2.1.4 An updated walkover was undertaken on 11 May 2023 to identify any additional invasive species present on site and update the species list.
- 2.1.5 The report has been reviewed by Will Holden, RSK Biocensus Associate Director. Will is a full member of CIEEM and a chartered ecologist and is a Suitably Qualified Ecologist (SQE).
- 2.1.6 All ecologists are members of CIEEM and are required through their contract of membership to abide by the Code of Professional Conduct. This includes the need to maintain up-to-date records of Continuing Professional Development (CPD).

2.2 Background data search

- 2.2.1 A search was made in December 2022 for reference materials relating to the ecology of the site for Withington Community Hospital and a list of sources is given in Table 1.

Table 1: Data sources.

Information Obtained	Available From
Protected and noteworthy species-records	Greater Manchester Local Records Centre
Designated site locations and citations	Natural England website

Designated site locations and citations	Joint Nature Conservation Committee (JNCC) website
Designated site locations and citations	Greater Manchester Local Records Centre
Designations and legal protection of noteworthy species	Joint Nature Conservation Committee (JNCC) website
Areas / Habitats of Strategic Significance	Greater Manchester Local Biodiversity Action Plan https://gmlrc.org/projects/gm_bap/
Areas / Habitats of Strategic Significance	National Habitat Networks https://www.data.gov.uk/dataset/0ef2ed26-2f04-4e0f-9493-ffbdbfaeb159/habitat-networks-england
Areas / Habitats of Strategic Significance	National Priority Focus Areas https://www.data.gov.uk/dataset/c20a40c5-c975-43e1-9abd-d1257aa58432/natural-england-national-priority-focus-areas
Areas / Habitats of Strategic Significance	Nature Improvement Areas https://www.data.gov.uk/dataset/a19c95e3-9657-457d-825e-3d2f3993b653/nature-improvement-areas

2.2.2 A search was made for information on statutory designated sites (often internationally and nationally important sites for ecology) within 2 km of the site boundary and non-statutory designated sites (often important in a local context) within 2 km. The search was extended to 10 km for Ramsar sites, special areas of conservation (SACs) and special protection area (SPAs). A search was also made for records of noteworthy species within 2 km of the site boundary.

2.2.3 Species included in the search parameters were:

- European protected species (listed on Schedules 2 and 5 of The Conservation of Habitats and Species Regulations 2017);
- Nationally protected species under Schedules 1, 5 and 8 of The Wildlife & Countryside Act 1981 and The Protection of Badgers Act 1992;
- Species listed as critically endangered, endangered or vulnerable based on the IUCN Red List Categories and Criteria 2001;
- All species listed on the RSPB Birds of Conservation Concern 4 as red or amber;
- Nationally rare or nationally scarce species;
- Notable invertebrates; and
- Species of principal importance under The Natural Environment and Rural Communities (NERC) Act (2006) or are priority species under the local biodiversity action plan.

2.3 Plants and habitats

UK habitat survey

- 2.3.1 The field survey was based on the UKHAB survey approach (Version 1.1; Butcher et al. 2020), as extended for use in environmental impact assessment (Institute of Environmental Assessment, 1995). This field survey was undertaken in line with CIEEM (2017) and involved the following elements:
- habitat mapping using a set of standard colour codes to indicate habitat types on a habitat map (*Figure 2*); and
 - a description of features of possible ecological or nature conservation interest in notes relating to numbered locations on the habitat map, called 'target notes'.
- 2.3.2 Vascular plant species were recorded during the survey, although no attempt was made to produce an exhaustive species list (additional species would almost certainly be found during more detailed surveys or repeat surveys at various times of the year).
- 2.3.3 Plant nomenclature in this report follows Stace (2019) for native and naturalised species of vascular plant, and mosses and liverworts follow Hill et al. (2008). Introduced species and garden varieties were identified using relevant Floras. Plant names in the text are given with common names with the scientific name (in italics) immediately following the first time it is mentioned. Doubtful identifications are preceded by 'cf.' placed before the specific epithet where the plant is very probably the species indicated, but it could not be distinguished from similar members of the genus with certainty.

Invasive non-native species (INNS)

- 2.3.4 UKHAB survey does not involve exhaustive surveying for individual plant species, and various invasive species may be little in evidence at various times of year (depending on the species). A survey seeking to identify habitat types cannot therefore be relied upon to provide firm information about the presence or extent of any INNS. However, any INNS that were encountered during the habitat survey were noted, including Japanese Knotweed (*Reynoutria japonica*), Giant Hogweed (*Heracleum mantegazzianum*) and Himalayan Balsam (*Impatiens glandulifera*), as well as any invasive non-native species of animals.

2.4 Protected and notable animals

General

- 2.4.1 The site was assessed for its suitability to support protected or otherwise notable animals that are likely to occur in the area. Taking into account the results of the BDS, the geographic location, connectivity to natural habitats in the wider landscape, the nature and extent of habitats at the site, and the proposed development, specific assessment was also carried out for the species/species groups outlined below.

Invertebrates

- 2.4.2 The site was assessed for its suitability to support notable species and/or assemblage of invertebrates, but no specific surveys were undertaken. The habitat requirements of particular invertebrates are often species-specific, so consideration was given to the presence of features and habitats that might be suitable for the notable species identified in the BDS.

Great crested newts

- 2.4.3 Although standing water is essential for their breeding, great crested newts (*Triturus cristatus*, GCNs) are terrestrial for most of the year and have been recorded up to 500 m from their breeding ponds. Ordnance Survey maps and aerial imagery was reviewed to identify any ponds within 250 m of the site boundary, and the site was assessed for its suitability for both terrestrial and breeding great crested newts. Relevant terrestrial habitats were surveyed, no ponds were identified within 500 m of the site.

Birds

- 2.4.4 Birds nest, forage and roost in a wide variety of habitats including scrub, woodland, hedgerows and trees, wetland, arable and pastoral farmland and rough grassland. Some species also use open bare ground and man-made structures.
- 2.4.5 The site was assessed for its suitability to support diverse assemblages and/or uncommon species of breeding and non-breeding birds, with an emphasis on those species that are listed on Schedule 1 of the Wildlife & Countryside Act 1981 (as amended), the red and amber lists of the RSPB's Birds of Conservation Concern 4 (Eaton *et al.*, 2015) and other notable species recorded in the BDS, including any species that are qualifying features of nearby designated sites. Consideration was given to the site's connectivity to landscape features that are likely to be of particular importance to birds, such as extensive areas of semi-natural woodland or wetlands. The presence of nests or signs of nest building were recorded, and buildings were surveyed for their suitability for barn owls and other species, with signs including nesting sites, feathers, droppings, and pellets.

Bats

Habitat

- 2.4.6 Habitats were assessed for their suitability for foraging and commuting bats, in line with guidance provided in Collins (2016). Areas of particular interest vary between species, but generally include sheltered areas and habitats with good numbers of insects, such as woodland, scrub, rivers and species-rich or rough grassland.

Buildings

- 2.4.7 The exterior of the building adjacent to the northern site boundary was inspected using close-focusing binoculars. The building was assessed taking into account the following factors that influence the likelihood of bats roosting:

- Surrounding habitat: whether there are potential flight-lines and bat foraging areas nearby.
- Construction details: the type and construction of architectural features such as attics, soffit boxes, lead flashing and hanging tiles that could be used by roosting bats. Some construction details and materials are more favourable to bat occupation than others;
- Building condition: whether the building has no roof or has a sound roof without any potential bat-access points.
- Potential bat-access points: whether there is flight and crawl access.

The descriptions of the building was recorded, and digital photographs were taken. The building's potential to support roosting bats was then classified using the criteria in Table 2 (Collins, 2016).

Table 2: Categorisation of the suitability of buildings or trees for roosting bats (Collins, 2016).

Category (Potential to support roosting bats)	Description
Negligible suitability	Negligible habitat features on site likely to be used by roosting bats.
Low suitability	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain potential roosting features (PRFs) but with none seen from the ground or features seen with only very limited roosting potential.
Moderate suitability	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely for a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High suitability	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Confirmed roost	Bats or evidence of bats recorded during the initial inspection surveys or during dusk/dawn surveys. A confirmed record (supplied by records centre/local bat group) would also apply.

Trees

- 2.4.8 Trees were noted if they had potential suitability for roosting bats (Collins, 2016). This involved identifying features that roosting bats may favour (e.g. holes, cracks and cavities that might be used as bat access-points or roost sites).
- 2.4.9 All trees within the site were surveyed from ground level. Features that might be used by roosting bats were described and categorised according to accepted guidelines (Collins, 2016). Each tree was given a category during the ground-level surveys (see Table 2) based on its potential for roosting bats.

- 2.4.10 Trees may also be categorised as having unknown potential if the surveyor's view of the tree is obscured. This can be caused by dense Ivy (*Hedera helix*) covering the trunk and major limbs which conceals potential roosting features from view.

Water voles and otters

- 2.4.11 Watercourses on and/or adjacent to site and their surrounding habitats were assessed to determine whether they were suitable for water voles (*Arvicola amphibius*). Suitable habitats include vegetated earth banks, reed beds, flowing water and wet ditches. Incidental signs of water vole activity, including burrows, feeding platforms, food remains and latrines, were recorded if they were encountered.
- 2.4.12 Watercourses on and/or adjacent to site were also assessed for their suitability for otters (*Lutra lutra*). Otters require clean rivers and associated waterbodies with an abundant, varied supply of food and plenty of bank-side vegetation, offering secluded sites for their holts. Other suitable habitats include reed beds and interconnected ditches and streams. Incidental signs of otter activity, including holts, foraging signs, paths (runs), footprints and spraints, were recorded if they were encountered.

Badgers

- 2.4.13 An initial assessment was carried out to identify areas that might be used by badgers (*Meles meles*) for commuting, foraging or setts within 30 m of all areas potentially affected by works (where access was possible). The area was systematically searched for signs of badgers including setts, foraging signs, paths (runs) and latrines where possible, and the category of sett and levels of activity visible at each sett was recorded.

Other species of principal importance

- 2.4.14 The UK countries of England, Wales, Scotland and Northern Ireland are obliged by their individual laws to maintain lists of species and habitats of principal importance for biodiversity conservation. In England, this obligation derives from the Natural Environment and Rural Communities (NERC) Act 2006. An assessment of the suitability and likelihood of the site supporting such species was made (for example, hedgehog (*Erinaceus europaeus*)).

2.5 Constraints and limitations

- 2.5.1 Less conspicuous plant species (including INNS) may have been missed as a result of the survey being undertaken outside of the ideal survey season. However, the majority of plants present were confidently identified, and the survey was sufficient to make a broad assessment of the habitats present on the site. A repeat site visit was undertaken in May 2023 to update the species list and record the presence of any further stands of invasive plant species..
- 2.5.2 This preliminary appraisal as to whether protected or otherwise notable species might occur on the site is based on the suitability of habitat, the known distribution of relevant species in the local area (from online sources and desk study), and any signs of the

relevant species. It does not constitute a full and definitive survey of any protected species group.

- 2.5.3 Field signs for protected and valuable species are often difficult to find or absent from a site. The survey conducted was not intended to be a comprehensive presence/absence survey for all species, but rather to provide an indication of the likely presence of such species based on the field signs found, and the nature of the habitats present.

3.0 RESULTS

3.1 Background data search

Biodiversity action plan

- 3.1.1 The latest Greater Manchester local biodiversity action plan (LBAP) lists eight habitat action plans (HAPs) and nine species and species group action plans (SAPs). The local plans relevant to the proposed development are:

Habitats

- Grasslands
- Hedgerows
- Native woodlands
- Urban managed greenspace

Species:

- Bats
- Black redstart
- Farmland birds
- Great crested newts
- Hares
- Native Black Poplar
- Twite
- Water vole
- Willow tit

Statutory designated sites

- 3.1.2 There are no internationally designated sites (Ramsar, Special Areas of Conservation (SAC) or Special Protection Area (SPA) within 10 km of the proposed site boundary.
- 3.1.3 There are two statutorily designated site within 2 km of the site boundary, Chorlton Water Park (LNR) 1.2 km west, and Stenner Woods and Millgate Fields (LNR) 1.7 km east of the proposed site boundary. These sites are listed in Table 3 in order of proximity to the site; short descriptions are given for the sites.

Table 3: Statutory sites within 2 km of the site boundary.

Site Name	Designation	Approximate Distance (m)
Chorlton Water park	LNR	1,215 west
Stenner Woods is an area of wet woodland dominated by crack willow trees, much of the ground being submerged in water throughout most of the year. The Wardens will leave dead trees standing where it will not be hazardous to do so. Beetle larvae and other invertebrates soon inhabit the trees; which turns them into larders of food for birds such as great spotted woodpeckers and tree creepers.		
Stenner woods and Millgate Fields	LNR	1,740 south-east
Former gravel pit managed for people and wildlife and is nationally important for wildfowl. Recently extended wildlife pond with wheelchair accessible dipping platform. Specially planted bullfinch area with fruit trees and gorse for cover. Developing woodland areas and rough grassland.		

Non-Statutory sites

- 3.1.4 There are four non-statutory designated sites within 2 km of the site boundary, which are sites of biological important (SBIs). These sites are listed in Table 4 along with their proximity to the site.

Table 4: Non-statutory designated sites within 2 km of the site boundary.

Site Name	Designation	Approximate Distance (m)
Wrengate Wood	SBI	815m
Chorlton Water Park	SBI	1340m
Fletcher Moss	SBI	1750m
Field by electricity sub-station	SBI	1910m

SSSI impact risk zones

- 3.1.5 The site does not fall within the SSSI impact risk zone (IRZ) of at any SSSI.

Habitats

- 3.1.6 There are no habitats designated as local formal targets by the Greater Manchester biodiversity action plan within 2km of the proposed site boundary, but there are several areas of deciduous woodland. The proposed site is not currently managed and therefore does not qualify as 'Urban Managed Greenspace'.

Protected and Notable Species

- 3.1.7 At least 27 protected species and 60 noteworthy species are recorded from places within 2 km of the site boundary. Noteworthy species include species of principal importance that are listed under Section 41 of The NERC Act 2006.

- 3.1.8 Of these, one is an invertebrate, three are amphibians, 11 are birds and 12 are mammals and two are reptiles. Species that are protected by law under Schedules 2 and 5 of The Conservation of Habitats and Species Regulations 2017 (as amended), Schedules 1, 2, 5 and 8 of The Wildlife and Countryside Act 1981 (as amended) or The Protection of Badgers Act 1992 that have been recorded in the search area are highlighted in the full species list given in *Appendix C*. Those of relevance to the site and the current proposals are discussed in *Section 3.3*.

3.2 Plants and habitats

UKHAB Survey

- 3.2.1 The UKHAB survey map is provided as *Figure 2* and shows the location of the target notes referred to in the text below. Photographs are provided in *Appendix A* and full description for each of the target notes is given in *Appendix E*. The site comprises the following:

- w1g6 - Line of trees
- h3h - Mixed Scrub
- u1b - Developed land sealed surface
- u1b5 - Buildings
- u1b6,1160 - Developed land; sealed surface, Introduced shrub

W1g6 - Line of trees

- 3.2.1 Lines of trees demarcate the north-western, southern and south-eastern site boundary. The trees along north-western site boundary are semi-mature and mature, primarily Sycamore (*Acer pseudoplatanus*) with the occasional Beech (*Fagus sylvatica*) (Target Note 2). The trees along southern site boundary, the central trees are young to semi mature and the trees in the north-west section are semi-mature to mature, species include Large-leaved Lime (*Tilia platyphyllo*), Pedunculate Oak (*Quercus robur*) and Sycamore. (Target Note 3). Finally, the trees on the south-east site boundary are semi-mature, species present include Ash (*Fraxinus excelsior*), Horse-chestnut (*Aesculus hippocastanum*) and Sycamore (Target Note 4). Bat boxes have been placed on numerous trees across the site (Target Note 8, Target Note 14).

h3h – Mixed Scrub

- 3.2.2 Most of the site is mixed scrub interspersed with young, scattered trees. Some trees are above 5m tall, but all trees are very young and leggy and have all been self-seeded. The area has no dominant species, but patches are dominated by Bramble (*Rubus fruticosus* agg.). Other species present include Ash saplings, Beech saplings, Butterfly-bush (*Buddleja davidii*), Cotoneaster (*Cotoneaster* sp.), Dog-rose (*Rosa canina*), Dogwood (*Cornus sanguinea*), Dog-rose (*Rosa canina*), Gorse (*Ulex europaeus*), Grey Willow (*Salix cinerea*), Hawthorn (*Crataegus* spp.), Holly (*Ilex aquifolium*), Horse-chestnut saplings, Silver Birch (*Betula pendula*) and Sycamore (Target note 1). Ground flora

species include Ivy (*Hedera helix*), Field Horsetail (*Equisetum arvense*), Bush Vetch (*Vicia sepium*), Greater Plantain (*Plantago major*), Strawberry (*Fragaria vesca*, introduced variety) (*var.*), Pendulous Sedge (*Carex pendula*), and Wall Cotoneaster (*Cotoneaster horizontalis*).

u1b – Developed land sealed surface

- 3.2.3 Areas of hard standing are currently used as a car park or footpaths (Target Note 7)

u1b5 – Buildings

- 3.2.4 There is one building located immediately north of the site boundary. It is anticipated that the southern aspect of the building will join to the new building. As such, these external walls were subject to a preliminary roost assessment. The building is the existing Withington Community Hospital and a detailed building description is provided within Section 3.3.7.

u1b6,1160 – Developed land; sealed surface, Introduced shrub

- 3.2.5 There are small areas which have been planted with introduced / ornamental planted shrubs. Species present include: Bamboo (*Bambusa sp.*), Barberry (*Berberis sp.*), Birch (ornamental variety) (*Betula sp.*), Boxed-leaved Honeysuckle (*Lonicera pileate*), Bracken (*Pteridium sp.*), Cherry Laurel (*Prunus laurocerasus*), Cherry (*Prunus sp.*), Cotoneaster, Hebe (*Hebe sp.*), Holly, Horse-chestnut, Snowberry (*Symphoricarpos albus*) and Willow (*Salix sp.*).

Invasive species

- 3.2.6 Wall Cotoneaster has been recorded within the areas of mixed scrub (see Plate 5 and Target Note 16).

3.3 Protected and notable animals

- 3.3.1 *Figure 2* shows the location of the target notes referred to in the text below, which show the location of features with suitability for protected and notable animals. A full description for each of the target notes is given in *Appendix E*.

Invertebrates

- 3.3.2 The BDS returned one record for notable invertebrates from within 2 km of the site. The record was for white-clawed crayfish (WCC) (*Austropotamobius pallipes*), located c. 2 km to the west of the site at Chorlton Water Park. On the site, the habitats present were considered likely to support only a common assemblage of invertebrate species, typical of scattered broadleaved trees, scrub and introduced shrubs. The habitats on the site were generally species poor and isolated from other suitable habitat by major roadways and urban development. Furthermore, no watercourses are present on the site or within the immediate vicinity for WCC. Therefore, invertebrates are not discussed further within this report.

Great crested newts and other amphibians

- 3.3.3 The BDS returned no records of GCNs from within 2 km of the site. No ponds were identified on the site or within 250m of the site boundary.
- 3.3.4 The terrestrial habitats within the site are broadly suitable for GCNs and other common amphibians. The areas of mixed scrub on site offer some suitable habitat for commuting and hibernating amphibians, but the immediate surrounding area is urban with a large number of roads and residential housing, which limit the opportunities for GCNs and will act as barriers to movement.
- 3.3.5 Therefore, considering the small size of the site, poor connectivity and lack of ponds within 250 m, GCNs are considered unlikely to be present and are not discussed further within this report. Other common amphibians, if present, are only anticipated to be present in small numbers.

Reptiles

- 3.3.6 The BDS returned three records for slow-worm (*Anguis fragilis*) from within 2km of the site, the closest is located 2km west at Chorlton Water Park.
- 3.3.7 Similar to amphibians, suitable habitat on site includes the scrub and introduced shrub. However, this habitat is small in size and the site is isolated via the surrounding roads and residential housing. Therefore, reptiles are considered unlikely to be present within the proposed site boundary and are not discussed further within this report.

Birds

3.3.8 The BDS returned records for eleven priority bird species, three of which had suitable habitat within the site boundary: song thrush (*Turdus philomelos*), wood pigeon (*Columba palumbus*), house sparrow (*Passer domesticus*). The areas of scrub and scattered broadleaved trees on site, offer suitable nesting habitat for common and widespread species such as robin (*Erithacus rubecula*) and woodpigeon. Overall, the habitats on the site are relatively species poor and unlikely to support a bird assemblage of significant diversity.

Bats

3.3.9 The BDS returned records of the following bat species within 2 km of the site:

- 18 records of Myotis (*Myotis sp.*) bat were returned, most recently 1.8km to the south-west.
- Four records of brown long-eared bat (*Plecotus auritus*) bat were returned, most recently located 2km to the north.
- 325 records of common pipistrelle (*Pipistrellus pipistrellus*) bat were returned, the closest being a record from within the site boundary. Seven roosts were returned within 2km of the site, the closest having 24 adults and being 135m from the site boundary.
- 14 records for Daubenton's (*Myotis daubentonii*) bat were returned, the most recent record 1.3km to the south-west.
- Two Natterer's (*Myotis nattereri*) bat were returned, the most recent in 2017, 432m to the north-west.
- 60 records for noctule bats (*Nyctalus noctula*) were returned, the closest was 383m south of the site.
- 103 records of soprano pipistrelle (*Pipistrellus pygmaeus*) were returned. Most recently in 2021 357m to the south-east of the site.
- One record of whiskered bat (*Myotis mystacinus*) was returned. The record is from 2018 and is located 1.7km to the north-east of site.

Buildings

3.3.10 The existing Withington Community Hospital building is located immediately adjacent the proposed site boundary. It is anticipated that the external wall of this building will connect to the new building and as such was subject to a preliminary roost assessment. The building was built around 2005 and is a modern design. Constructed from brick with a flat metal roof. There are exposed steel beams also present in the walls. The roof is generally in good condition with no PRFs noted. There are metal barge boards on all aspects, which are slightly lifted on the eastern aspect. The walls are generally in good condition, but missing mortar was noted on the eastern and southern aspects of the building. Furthermore, there are weep holes on all aspects of the building, the majority are blocked with a plastic vent. However, several vents are missing on the eastern and

southern aspect, which provide opportunities for roosting bats. There are also wooden built structures on the eastern and southern aspect, which have slight gaps between them and the brick walls. The windows and doors are metal and are in excellent condition and tightly sealed. Overall, a small number of PRFs were noted which could be used by small numbers of bats, occasionally. The quality of roosting habitat within the building is considered to be low.

Trees

3.3.11 Eight trees on site were identified as having PRFs suitable to support roosting bats. Two trees were assessed as high, four were moderate and two were low (see Photographs in *Appendix F*).

- Tree 1 (Target Note 8) - Three bat boxes are installed on Sycamore tree located on several aspects. All bat boxes are Schwegler 2F (Target Note 8). The quality of roosting habitat is high due to the presence of bat boxes.
- Tree 2 (Target Note 9) - Mature Sycamore with knot hole on northern aspect approximately 10m high and wound on northern aspect approximately 10m high. The quality of roosting habitat is moderate.
- Tree 3 (Target Note 10) - Mature Sycamore tree with three Schwegler 2F bat boxes installed on trunk of tree, northern, southern and western aspects. The quality of roosting habitat is high due to the presence of bat boxes.
- Tree 4 (Target Note 11) - Mature Sycamore tree with knot hole on the eastern aspect, c. 5m high. The quality of roosting habitat is moderate.
- Tree 5 (Target Note 12) - Mature Sycamore tree with knot hole / pruning cut on northern aspect approximately 5m high. The quality of roosting habitat is moderate.
- Tree 6 (Target Note 13) - Mature Horse-chestnut tree with knot hole on the western aspect, c. 4m high. The feature is relatively small and subject to regular disturbance from the adjacent road and is well lit – as such the quality of roosting habitat is low.
- Tree 7 (Target Note 14) - Mature Ash tree which has been pollarded, there are three 2F Schwegler bat boxes have been installed on trunk on the western, northern and eastern aspects. The entrances to the bat boxes are very cluttered due to ash regrowth, reducing the likelihood of large numbers of bats using the boxes to roost. Therefore, the quality of roosting habitat is moderate.
- Tree 8 (Target Note 15) - Semi-mature Horse-chestnut tree with pruning cut/ wound on the eastern aspect c.5m high. Considered to have low suitability.

Foraging and commuting habitat

3.3.12 The areas of scrub and scattered trees on site provide some habitat for foraging and commuting bats. However, the site is situated within the suburban area of Withington in Greater Manchester. As such, the site is surrounded by residential dwellings with gardens and well-lit roads.

- 3.3.13 There are small patches of greenspace in the wider surrounding area such as Chorlton Water Park (1.3km south-west of the site) and Fletcher Moss Park (1.5 km south-east), but these are limited. Furthermore, the River Mersey is located 350 m south of the site and will provide a green corridor through the landscape. However, connectivity between the site and these habitats is limited by well-lit busy roads and large urban areas.
- 3.3.14 Therefore, considering the small size of the habitats on site and limited connectivity from the site, the site is considered to offer low quality habitat for foraging and commuting bats.
- 3.3.15 It is considered reasonably likely that the scattered trees can be retained as part of the proposed development

Water voles and otters

- 3.3.16 The BDS returned one record of water vole in 2021, 1.4km to the south of the site. No records for otter were recorded within 2m of the site. However, there are no suitable habitats for these species present on the site.
- 3.3.17 The closest watercourse is the River Mersey 350 m south of the site. The river is not hydrologically connected to the site. Therefore, these species are considered to be absent from the site and are not discussed further within this report.

Badgers

- 3.3.18 The BDS returned no records of badger within 2 km of the site.
- 3.3.19 No setts or other badger field signs were observed during the survey, the areas of scrub on-site do provide suitable habitat for badgers. However, the habitats in the immediate surrounding area are generally unsuitable for badger, with large residential housing estates and well-lit busy roads surrounding the site boundary this and the small size of the suitable habitat into account, badgers are considered to be absent from the site and are not discussed further within this report

Other protected species

- 3.3.20 The BDS returned records of hedgehog within 2km of the proposed site boundary. The scrub and introduced shrub habitat provide suitable habitat for hedgehog. Hedgehogs occupy a range of lowland habitats with enough cover to allow nesting; they are common in parks in urban and suburban environments, farmland and gardens.

4.0 EVALUATION

Statutory designated sites

- 4.1.1 There are no internationally designated site within 10 km of the site but there are two national statutory designated sites within 2 km of the site boundary. The closest is Chorlton Water Park LNR, located c. 1.2km west of site. Given the distances from site and the scale of development, it is unlikely that the proposed development will have any direct or indirect impact on these designated sites.

Non-Statutory designated sites

- 4.1.2 There are four SBIs within 2 km of site, with the closest is Wrengate Wood SBI located 800m from the site boundary. Given the small scale and size of the proposed development and distance from site, no impacts are anticipated on these sites.

Habitats and plants

- 4.1.3 The majority of the habitats on the site are not species-rich, have little botanical value and are ubiquitous in the wider landscape. However, the scattered trees are of inherent ecological value and should be retained where possible.

Invasive non-native species

- 4.1.4 Wall Cotoneaster have been identified throughout the areas of mixed scrub on the site. It is likely that Cotoneaster will be impacted by the proposed works at the site.
- 4.1.5 An invasive species management plan should be produced by a specialist contractor and adhered to in relation to the proposed works.

Protected and other notable species

- 4.1.6 The areas of scrub and scattered trees on the site provide suitable nesting habitat for a range of common and widespread bird species. Precautionary measures are required to prevent destruction of any bird nests during the works.
- 4.1.7 All trees on the site were assessed from ground level for their suitability to support roosting bats. Eight trees within the proposed site boundary have been identified as having PRFs suitable to support roosting bats, two trees were assessed as high, four were moderate and two were low. It is understood that the trees will be retained as part of the development and will not be directly impacted. However, measures are required to ensure they are not indirectly impacted (e.g. through noise or lighting) during the construction phase of the development, these are outlined in Section 5 of this report.
- 4.1.8 There is one building present on the site. The quality of roosting habitat for bats within the building in the vicinity of the development is low. It is understood that the building will not be directly impacted as part of the development, but measures are required to ensure the building is not indirectly impacted during the construction phase of the development, these are detailed within Section 5.

- 4.1.9 The habitats provide low quality habitat for foraging and commuting bats. However, it is anticipated that most of the suitable habitat can be retained as part of the proposed development (scattered trees, ornamental shrubs, hedgerows). Therefore, considering the small size and scale of the proposed development, activity surveys are not considered necessary. However, precautionary measures are required during the works to prevent disturbance to bats during the construction phase of the development.
- 4.1.10 The site provides suitable habitat for hedgehogs, and it is connected to other suitable habitat, such as residential gardens. The site also provides some low quality habitat for common amphibians. Precautionary measures are therefore required during the works to prevent any negative impacts on hedgehogs, common amphibians and other mammals which may use the site for foraging and commuting. This is outlined further in Section 5 of this report
- 4.1.11 Enhancement measures for birds, bats and hedgehogs are recommended.

5.0 RECOMMENDATIONS

5.1 Key constraints to design and construction

Invasive non-native plant species

- 5.1.1 Wall Cotoneaster is listed under schedule 9 of the Wildlife and Countryside Act 1981 (as amended). It is illegal to cause the spread of this species in the wild. Whilst not a legal requirement it is recommended that invasive species are treated and/or removed by a specialist contractor to eradicate them from the site and prevent their spread.

Nesting birds

- 5.1.2 Areas of scrub, introduced shrubs, scattered trees and building on the site provide suitable nesting habitat for a range of common and widespread bird species. Precautionary measures are required to prevent destruction or disturbance of any bird nests as part of any proposals on the site, these are outlined within Section 5.2.

Bats

Buildings

- 5.1.3 The existing Withington Community Hospital building is located immediately adjacent the proposed site boundary. The quality of roosting habitat within this section of the building has been assessed as low.
- 5.1.4 The building will not be directly impacted by the proposed development and all features will be retained. However, reasonable avoidance measures should be implemented throughout the development to avoid indirect impacts (via noise, vibration and light). These are outlined in Section 5.2.
- 5.1.5 If this changes and the building is directly impacted, one further survey during peak bat survey season (May to August inclusive) will be required to determine the presence or likely absence of roosting bats. Should a roost be identified within the building, then a mitigation licence from Natural England will be required before the development can proceed.

Trees

- 5.1.6 Eight trees within the proposed site boundary have been identified as having PRFs suitable to support roosting bats, two trees were assessed as high, four were moderate and two were low.
- 5.1.7 All trees will be retained and will not be directly impacted by the proposed development. However, the trees may be impacted indirectly (via noise, vibration and light), therefore reasonable avoidance measures should be implemented throughout the development, these are outlined within Section 5.2.

- 5.1.8 However, if this changes and the trees are to be directly impacted and / or removed as part of the proposed development (including via arboriculture works), trees assessed as moderate or high will require further surveys during the bat survey season (May to September inclusive) to determine the presence or likely absence of roosting bats. Trees assessed as low will not require further surveys, but measures should be implemented to avoid impacts to bats (e.g. use of soft felling techniques and pre-felling inspections). Should a roost be identified within the building, then a mitigation licence from Natural England will be required before the development can proceed.

Foraging and commuting bats

- 5.1.9 . Habitats around the perimeter of site and immediately adjacent to site provide suitable habitat foraging, commuting and roosting, as such measures should be implemented to avoid impacts. These are outlined within Section 5.2 below. Furthermore, external lighting as part of proposals should be designed in line with the Institute of Lighting Professionals (ILP, 2018) Guidance Note 08/18 'Bats and Artificial Lighting in the UK' and aim to keep a <1 lux increase in light levels of current and any newly established potential foraging and commuting resources both during the construction and operational phases.

5.2 Mitigation requirements

Nesting birds

- 5.2.1 Any site clearance, tree felling, arboricultural works or vegetation removal (including enabling works) are to take place outside of the breeding bird season and should not be undertaken from March to August inclusive. If this is not possible and works need to take place between March and August, an ecological clerk of works (ECoW) will be required to perform a nesting bird check a maximum of 48 hours before any removal or disturbance of suitable nesting habitat. This would involve watching the vegetation for at least 30 minutes to watch for nesting behaviour before performing a hand search for nests. If nesting birds are found, then the ecologist will outline how to proceed; this may include creating a buffer around the nest or possible delays to the works until the chicks have fledged.

Bats

- 5.2.2 The following measures will be implemented throughout the construction phase of the development to avoid indirect impacts to roosting bats and reduce impacts on foraging and commuting bats.
- a 5m buffer zone from the potential roosting features within the building will be maintained throughout the construction phase of the development. If this is not possible, a suitably licensed ecologist will inspect the features prior to start of works within 5m, via a mobile elevated platform. If bats are found to be present, the ecologist will direct works accordingly to avoid disturbance. This may include ecological supervision or use of hand tools or temporary stop of works.

- a 5m buffer zone from trees assessed as having potential to support roosting bats (Figure 2) will be maintained throughout the works. If this is not possible, the works will be directed by a suitably licensed ecologist and measures implemented to reduce disturbance (e.g. use of hand tools). If necessary the suitably licensed ecologist will inspect the features prior to start of works within 5m to determine if bats are present and direct works accordingly.
- measures outlined within the arboricultural assessment report for the site (RSK Biocensus (2023) Withington Community Hospital Stage 1 and 2 Arboricultural Impact Assessment Report) will be implemented to protect retained trees during the construction phase of the development.
- no night-time working (defined as 15 minutes before sunset to 15 minutes after sunrise). If night working is required, artificial lighting should be hooded to reduce spill and should be directed away from any linear features that could be used for foraging and commuting, and away from any buildings or trees which may be suitable for roosting bats.
- temporary lighting should be minimised and should be directed away from the building, trees with suitability to support bats and retained trees and scrub. Lighting should be designed in line with the Institute of Lighting Professionals (ILP, 2018) Guidance Note 08/18 'Bats and Artificial Lighting in the UK' and aim to keep a <1 lux increases in light levels in these areas

Common amphibians and hedgehogs

5.2.3 In order to safeguard any common amphibians, hedgehogs and any other nocturnal animals that may be present, the following measures should be implemented throughout the construction phase of the development:

- excavations should be covered overnight to prevent animals from becoming trapped. If it is not possible to cover excavations, an access route or ramp should be provided to allow animals to climb out. Excavations should be inspected by the work foreman each morning prior to works commencing to ensure no animals are
- Clearance works should proceed in a directional manner and in the case of ornamental shrubs or scrub follow a two-tier clearance approach. This involves cutting vegetation to a height of 150 mm, allowing animals to disperse before cutting to ground level. If any hedgehogs are found during the works they should be left to disperse of their own accord before works continue. However. if any amphibians are found during the works, they should be carefully moved to undisturbed habitat on the site.

5.2.4 If any protected species are encountered during the works, works must stop, and an ecologist be contacted about how to proceed.

Sensitive lighting strategy

5.3 Opportunities for enhancement

- 5.3.1 The below enhancement measures are recommended in line with the following conservation objectives of relevant local HAPs and SAPs, as well as the National Planning Policy Framework 2019.

Landscaping

- 5.3.2 The planting of native species including flower-, berry- and fruit-bearing species would benefit badgers, birds and other protected species. Furthermore, planting trees and hedgerows on site would create commuting corridors for many species including bats and hedgehogs. These features should be kept as dark corridors and should have strips of rough native grassland planted adjacent to them to attract invertebrates.

Nest / roost boxes

- 5.3.3 Bird boxes should be incorporated into the development design, including those suitable for house sparrow, song thrush and starling. This should be proportionate to the degree of habitat loss / nesting.

The bat boxes on site should be retained as far as possible. Enhancements to the boxes via repositioning and vegetation clearance to reduce clutter should be implemented to increase roosting opportunities, and implemented in proportion with the degree of habitat or roosting lost.

Log piles and 'hedgehog highways'

- 5.3.4 Log piles should be incorporated into quiet and varied habitats in the development to offer refuge for hedgehogs and other species. Ideally, they should be created using any logs generated from vegetation clearance, or from native and local wood. Furthermore, 'hedgehog highways' (holes approximately 13 cm²) should be provided in fences to improve habitat connectivity for hedgehogs.

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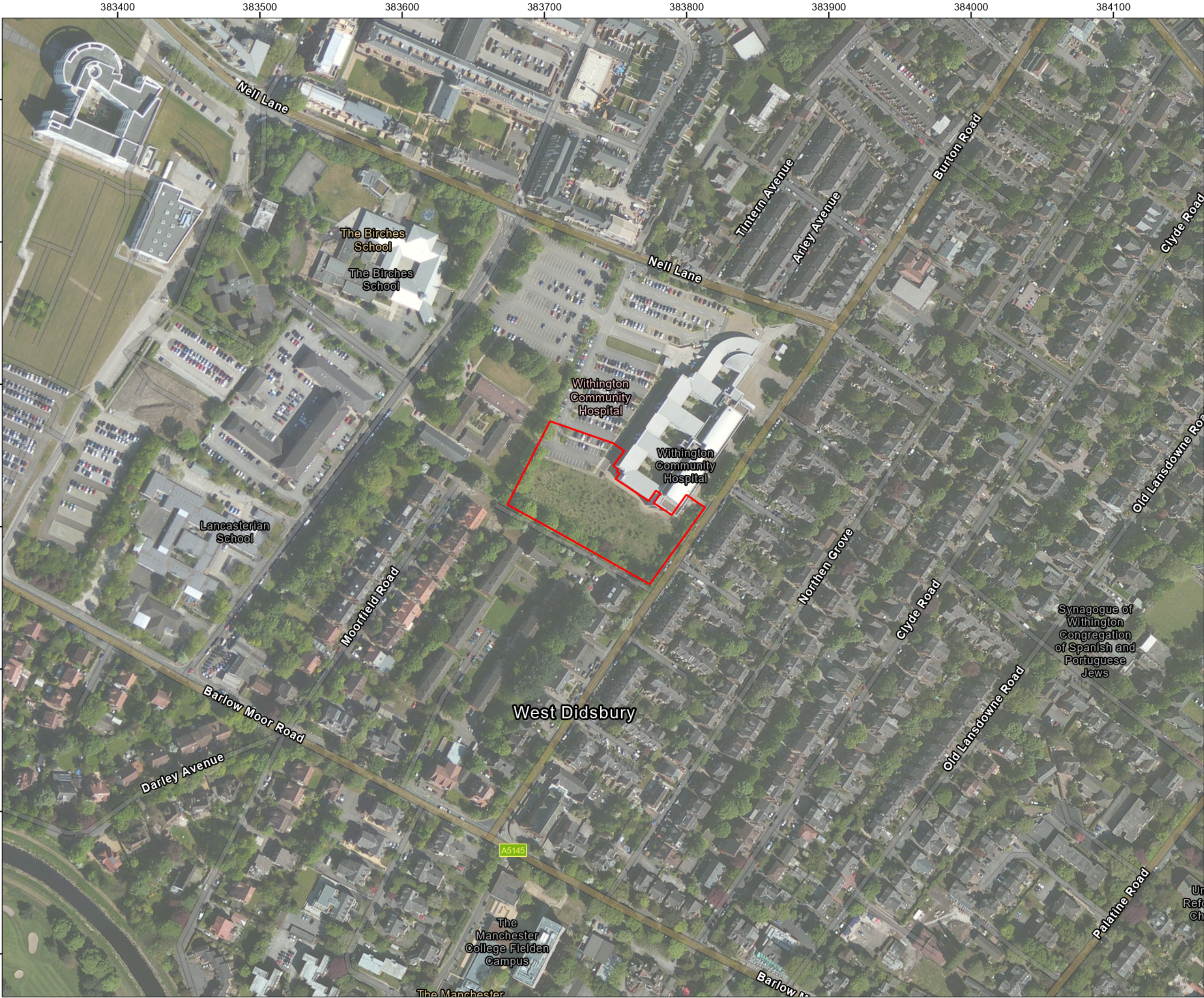
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FIGURES

Figure 1 - Site Location Plan

Figure 2 - UKHab Map

Figure 1 - Site Location Plan



Legend:

Site Boundary

00	17/01/2023	2485005	RG	SP	TW
Rev	Date	Description	Drn	Chk	App

Withington Community Hospital

EXPERTS IN ECOLOGY

TITLE: Figure 1:
Site Location Plan

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Figure 2 - UKHab Map



Legend:

- Site Boundary
- UKHab Habitats
 - Mixed Scrub
 - Developed Land; Sealed Surface
 - Other Developed Land; Introduced Shrub
- Line of Trees
- Target Note



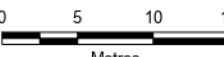
00	24/01/2023	2485005	RG	SP	ES
Rev	Date	Description	Drn	Chk	App

Withington Community Hospital



RSK
biocensus
EXPERTS IN ECOLOGY

TITLE: Figure 2:
Habitat Plan



SCALE: 1:500 @ A3



REV 00

APPENDIX A – PHOTOGRAPHS

Table 5: Site photographs.

Plate number	Photograph	Description
Plate 1		Example of tree line.

Plate number	Photograph	Description
Plate 2		Mixed scrub south of the buildings

Plate number	Photograph	Description
Plate 3	 A photograph showing the eastern view of a two-story brick building. The building has a series of windows and a chimney. In the foreground, there is a paved area with a grid pattern and some landscaping, including a large evergreen shrub and smaller bushes.	Eastern view of building

Plate number	Photograph	Description
Plate 4		Western view of hardstanding land used as carpark

Plate number	Photograph	Description
Plate 5		Example of Wall Cotoneaster on site.

APPENDIX B – NATURE CONSERVATION LEGISLATION AND POLICY

International Legislation

The following international conventions and directives apply to biodiversity protection in the UK. Post-'Brexit', even though European Union (EU) directives no longer directly apply to the UK, the provisions therein are enshrined in both domestic legislation and international agreements. Legislation has been enacted to ensure the regulations derived from these remain in force¹.

The Convention on Biological Diversity 1992 *et seq.*

This multilateral treaty (<https://www.cbd.int/doc/legal/cbd-en.pdf>), signed by 150 government leaders at the 1992 Rio Earth Summit, has three main goals, of which one is the conservation of biological diversity. Article 6 requires countries to develop national biodiversity strategies, plans or programmes. In response, the UK developed the UK Biodiversity Action Plan (BAP) 1994 (<https://jncc.gov.uk/our-work/uk-bap/>) as well as county-specific BAPs. Subsequent to this, parties of the convention agreed the supplementary Nagoya Protocol 2010 (available at <https://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf>), adopting the Strategic Plan for Biodiversity 2011-2020. The purpose of this Strategic Plan was to provide a framework for establishing national and regional biodiversity targets (<https://www.cbd.int/doc/strategic-plan/2011-2020/Aichi-Targets-EN.pdf>).

Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds (Birds Directive) 2009

<https://www.legislation.gov.uk/eudr/2009/147>

The Birds Directive 2009 relates to the conservation of all species of naturally occurring birds in their wild state in the territory of the EU Member States (MSs) to which the treaty applies. Under the Birds Directive, the most suitable areas of conservation of the Annex I species are to be designated as Special Protection Areas (SPAs), as part of the European Natura 2000 network. Post Brexit, SPAs are no longer considered part of Natura 2000 and are instead components of the UK's 'national site network', but their highly protected status is unchanged. Maintaining a coherent network of protected sites with overarching conservation objectives is still required in order to fulfil the commitment made by government to maintain environmental protections and continue to meet the UK's international legal obligations.

¹ Further information relating to England and Wales can be found here: <https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017>. A similar exercise has been undertaken in Scotland and Northern Ireland.

Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitats Directive) 1992

<https://www.legislation.gov.uk/eudr/1992/43>

The Habitats Directive 1992 requires EU MSs to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of community interest, which are listed under Annex I, II, IV and/or V. Species listed under Annex IV are known as 'European Protected Species' (EPS), and have retained their protected status in UK domestic legislation post-Brexit.

Under the Habitats Directive, EU Member States are required to contribute to the Natura 2000 network through the designation of Special Areas of Conservation (SACs) for natural habitat types listed in Annex I and habitats of species listed in Annex II. Post Brexit, SACs are no longer considered part of the European Natura 2000 network and are instead components of the UK's 'national site network', but their highly protected status is unchanged.

The Convention on Wetlands of International Importance Especially as Waterfowl Habitat 1971: the Ramsar Convention

Accessible via <https://jncc.gov.uk/our-work/ramsar-convention/>

The Ramsar Convention is an intergovernmental treaty focused on the conservation and sustainable use of wetland, primarily as habitats for water birds. Under the convention, each ratified country is required to identify and designate sites (Ramsar sites) that meet the criteria for identifying a wetland of international importance, i.e. containing representative, rare or unique wetland types. In addition, the convention promotes international co-operation to promote the wise use of all wetlands and their resources.

Habitats Regulations Assessment (HRA): a note

There is a requirement under the EU nature directives, and enshrined in country-specific domestic legislation² (see below), to undertake a screening exercise to determine whether any sites that form part of the 'national site network' (formerly Natura 2000) are likely to be significantly affected by any proposal (project or plan). The assessment must consider the proposals alone and also in combination with other plans and projects, if they result from activities that are not directly connected with, or necessary to, the management of the designated sites. If significant effects are likely, an Appropriate Assessment (AA) will need to be carried out. The screening, any AA, and any subsequent assessment, are collectively known as a Habitats Regulations Assessment (HRA). The HRA needs to take into account each of the 'Qualifying Features' (habitats or species) that justified the site being designated. Ramsar sites are treated in the same way as SACs and SPAs in HRAs, as are sites which have not been fully adopted i.e. candidate SACs (cSACs) and potential SPAs (pSPAs).

² In England and Wales: the Conservation of Habitats and Species Regulations 2017 (as amended).
In Scotland: the Conservation (Natural Habitats &c.) Regulations 1994 (as amended).
In Northern Ireland: the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended).
In the UK offshore area: the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended).

The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) 1979

Accessible via: <https://jncc.gov.uk/our-work/the-convention-on-the-conservation-of-migratory-species-of-wild-animals/#convention-summary>

The Bonn Convention was adopted in 1979 and came into force in 1985. Contracting Parties work together to conserve migratory species and their habitats by providing strict protection for endangered migratory species (listed in Appendix I of the Convention), concluding multilateral agreements for the conservation and management of migratory species which require or would benefit from international cooperation (listed in Appendix II), and by undertaking cooperative research activities. The UK Government ratified the Bonn Convention in 1985. The current legally-binding Agreements under the Convention include EUROBATs³.

The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) 1979

<https://www.coe.int/en/web/bern-convention>

The principal aims of the Bern Convention 1979 are to ensure the conservation and protection of wild plant and animal species and their natural habitats (listed in Appendices I and II of the Convention), to increase cooperation between contracting parties, and to regulate the exploitation of those species (including migratory species) listed in Appendix III. To this end, the Bern Convention imposes legal obligations on contracting parties, protecting over 500 wild plant species and more than 1,000 wild animal species. The UK Government ratified the Bern Convention in 1982.

National Legislation

The following pieces of domestic legislation apply to biodiversity protection in the UK.

The Wildlife and Countryside Act (WCA) 1981

<https://www.legislation.gov.uk/ukpga/1981/69>

The Wildlife and Countryside Act 1981 (as amended) is the primary piece of legislation relating to nature conservation in the UK, though it has been adapted in different ways in the devolved administrations. It was initially enacted to implement the Bern Convention, Bonn Convention and the Birds Directive (described above).

The act is supplemented by provisions in the Countryside and Rights of Way (CROW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006, and extended in Scotland by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2011). Its equivalent in Northern Ireland is the Wildlife (Northern Ireland) Order 1985 (as amended and similarly extended). In addition to the Habitat Regulations (described below), the WCA provides protection for species listed in Schedules 1 (birds), 5 (other animals) and 8 (plants) of the Act. It provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) in England and Wales⁴. It also sets out,

³ More information available at <https://jncc.gov.uk/our-work/agreement-on-the-conservation-of-populations-of-european-bats-eurobats>

⁴ Duty replaced by the Nature Conservation (Scotland) Act 2004 (as amended) and the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985 (as amended) in those countries.

in other schedules, important and invasive species which are legally protected or require management.

All species of bird are protected under the WCA. The legislation makes it an offence to intentionally:

- a) kill, injure or take any wild bird;
- b) take, damage, or destroy the nest of any wild bird while that nest is in use or being built; or
- c) take or destroy an egg of any wild bird.

Those species of birds listed on Schedule 1 of the WCA are afforded additional protection, which deems it an offence to intentionally or recklessly:

- d) disturb 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
- e) disturb dependent young of such a bird.

Under Section 9 of the WCA, for animals listed on Schedule 5, it is an offence in England and Wales to intentionally or recklessly:

- kill, injure or take any wild animal listed on Schedule 5;
- possess or control any live or dead those wild animals or anything derived from it;
- damage or destroy any structure or place which wild animals listed on Schedule 5 uses for shelter or protection;
- disturb any such animal while it is occupying a structure or place of shelter or protection;
- obstruct access to any structure or place used by any such animal for shelter or protection; and
- sell, offer or expose for sale, or have in their possession or transports for the purpose of sale, any live or dead wild animal listed on Schedule 5 or any part of, or anything derived from such an animal.

As noted above, there are minor differences between the offences in England and Wales outlined above, and those in Scotland / Northern Ireland. In addition, the Wildlife and Countryside Act 1981 is no longer relevant to EPS in Scotland or Northern Ireland, which instead are afforded full protection by the 'Habitats Regulations' (see below).

In addition to EPS, species commonly found on development sites include water voles (*Arvicola amphibius*) and widespread species of reptiles: common lizard (*Zootoca vivipara*); slow-worm (*Anguis fragilis*); grass snake (*Natrix helvetica*); and adder (*Vipera berus*). These four reptile species receive partial protection, which prevents the intentional or deliberate killing and injuring of reptiles or offering them for sale.

Section 14(2)⁵ states that it is an offence to plant or otherwise cause to grow any plant in the wild at a place outside its native range.

There is no provision within the Act for derogation licences to be issued for the purposes of development, although Section 10 provides a defence in cases that may be considered to be: *"the incidental result of a lawful operation and could not reasonably have been avoided"* if certain conditions are met.

⁵ In Scotland, as amended by Section 14 of the Wildlife and Natural Environment (Scotland) Act 2011.

Section 16(i) of the Act does make provision for derogation licences to be issued “for the purposes of preserving public health or public ... safety”. For confirmation of this, it would be appropriate to consult the relevant statutory nature conservation body (SNCB)⁶.

The Conservation of Habitats and Species Regulations (Habitat Regulations) 2017

<https://www.legislation.gov.uk/uksi/2017/1012> England and Wales

Conservation of Offshore Marine Habitats and Species Regulations 2017

<https://www.legislation.gov.uk/uksi/2017/1013>

The Conservation of Offshore Marine Habitats and Species Regulations 2017 transposed into national law the Habitats Directive (and the Bird Directive in the UK offshore areas). These regulations apply to the UK’s offshore marine area which covers waters beyond 12 nautical miles, within British Fishery Limits and the seabed within the UK Continental Shelf Designated Area.

These regulations enable the designation and protection of areas that host habitats and species of European importance in the offshore marine area. These sites were previously defined collectively as ‘European offshore marine sites’ and now, together with all other terrestrial and marine SACs and SPAs across the UK, form a network of sites known as the ‘national site network’.

Countryside and Rights of Way Act 2000

<https://www.legislation.gov.uk/ukpga/2000/37>

The Countryside and Rights of Way (CRoW) Act 2000 provides for public access on foot to certain land types, amends the law for public rights of way, increases protection for SSSIs, and strengthens wildlife enforcement legislation. It applies only in England and Wales.

The Natural Environment and Rural Communities (NERC) Act 2006; The Environment (Wales) Act 2016

<https://www.legislation.gov.uk/ukpga/2006/16>

The Natural Environment and Rural Communities (NERC) Act 2006, Section 40 requires that any public body or statutory undertaker in England must have regard to the purpose of conservation of biological diversity in a manner that is consistent with the exercise of their normal functions. This may include enhancing, restoring or protecting a population or a habitat. The intention is to help ensure that biodiversity becomes an integral consideration in the development of policies, and that decisions of public bodies work with the grain of nature and not against it. In Wales, a similar duty has been moved to Section 6 of the Environment (Wales) Act 2016.

As part of this duty, statutory undertakers must have regard to the list of habitats and species which are of principal importance for the purpose of maintaining and enhancing biodiversity. For England, the duty to compile such a list is captured under Section 41 of the NERC Act; in

⁶ SNCBs are - in England: Natural England; in Wales: Natural Resources Wales; in Scotland: NatureScot; in Northern Ireland: Department of Agriculture, Environment and Rural Affairs (DAERA).

Wales, under Section 7 of the Environment (Wales) Act. The lists for England are accessible online via the National Archive⁷; for Wales via <https://www.biodiversitywales.org.uk/>.

The Hedgerows Regulation 1997

<https://www.legislation.gov.uk/ukxi/1997/1160/made>

The Hedgerows Regulations 1997 provide protection for 'important' hedgerows for which replanting is not a substitute. The 'importance' of a hedgerow depends upon several archaeological, wildlife and landscape criteria (which are outlined in the Regulations). The regulations deem it an offence to remove an 'important hedgerow' without prior notification to the relevant local planning authority.

Protection of Badgers Act 1992

<https://www.legislation.gov.uk/ukpga/1992/51>

Badgers and their setts are protected under the Protection of Badgers Act 1992 (England, Wales and Scotland). The key part of this legislation in relation to the proposed development are in Section 3, which deems it an offence to:

- a) damage a badger sett or any part of it;
- b) destroy a badger sett;
- c) obstruct access to, or any entrance of, a badger sett;
- d) disturb a badger when it is occupying a badger sett,
- e) intend to do any of those things or be reckless as to whether those actions would have any of the consequences listed above.

Derogation licences may be obtained from the relevant SNCB⁶ under Section 10 of the Act for the purpose of development, to permit activities which would otherwise be unlawful.

Note: there are additional provisions relating to badgers under the WCA Section 11 (Prohibition of certain methods of killing or taking wild animals).

The Wild Mammals (Protection) Act 1996

<https://www.legislation.gov.uk/ukpga/1996/3>

All wild mammals are protected by The Wild Mammals (Protection) Act 1996 (as amended). This makes it an offence to mutilate, kick, beat, nail, or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal.

Invasive Alien Species (Enforcement and Permitting) Order 2019

(<https://www.legislation.gov.uk/ukxi/2019/527/contents/made>)

The Invasive Alien Species (Enforcement and Permitting) Order applies principally in England and Wales and the UK's offshore marine area, but also controls imports and exports from the UK (including Scotland and Northern Ireland). It lists species of concern which cannot be imported, kept, bred/grown, transported, sold, used, allowed to reproduce, or released into the environment. This Order replaces some elements relating to invasive species in the Wildlife and Countryside Act 1981 (as amended).

⁷

<https://webarchive.nationalarchives.gov.uk/ukgwa/20140712055944/http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>

APPENDIX C – PROTECTED AND NOTEWORTHY SPECIES RECORDS

Species that are protected by law under Schedules 2 and 5 of The Conservation of Habitats and Species Regulations 2017, Schedules 2, 5 and 8 of The Wildlife and Countryside Act 1981 or The Protection of Badgers Act 1992 and have been recorded in the search area are listed in *Table 6* (excluding species protected only against collection for sale). These species records were obtained from the Greater Manchester Ecology Unit. The Latin and common names for species are given, along with the year of the most recent record and their level of designation.

Table 7 displays all noteworthy species that were returned within the search area. A glossary defining abbreviations used in the table is given in *Table 8, Appendix D*. If a species is not included in the tables below it does not necessarily mean the species is absent from the search area, but rather that data-holding organizations do not have records of it in these locations.

Table 6: Protected species records within 2 km of the site boundary.

Latin Name	Common Name	Designation	Most Recent	Within 100m
Birds				
<i>Alcedo atthis</i>	kingfisher	WCA1.1	2022	
<i>Anser anser</i>	greylag goose	WCA1.2, Amber	2017	
<i>Aythya marila</i>	scaup	WCA1.1, S41, Red, GB RDB(EN)	2016	
<i>Bucephala clangula</i>	goldeneye	WCA1.2, Red, GB RDB(VU)	2021	
<i>Cygnus cygnus</i>	whooper swan	WCA1.1, Amber, GB RDB(EN)	2015	
<i>Falco peregrinus</i>	peregrine falcon	WCA1.1	2014	
<i>Falco subbuteo</i>	hobby	WCA1.1	2020	
<i>Melanitta nigra</i>	common scoter	WCA1.1, S41, Red, GB RDB(CR)	1997	
<i>Milvus milvus</i>	red kite	WCA1.1	2013	
<i>Phoenicurus ochruros</i>	black redstart	WCA1.1, Amber, GB RDB(EN)	2010	
<i>Tyto alba</i>	barn owl	WCA1.1	2021	
Invertebrates				
<i>Austropotamobius pallipes</i>	white-clawed crayfish	WCA5, S41	2009	
Mammals				
<i>Arvicola amphibius</i>	water vole	WCA5, S41, GB RDB(EN)	2021	
Chiroptera	unidentified bat	EPS(Sch2)	2020	

Latin Name	Common Name	Designation	Most Recent	Within 100m
<i>Lutra lutra</i>	otter	EPS(Sch2), WCA5, S41	2021	
<i>Meles meles</i>	badger	BA	2022	
<i>Myotis</i> sp.	a myotis bat	EPS(Sch2), WCA5	2020	
<i>Myotis daubentonii</i>	Daubenton's bat	EPS(Sch2), WCA5	2020	
<i>Myotis mystacinus</i>	whiskered bat	EPS(Sch2), WCA5	2018	
<i>Myotis nattereri</i>	Natterer's bat	EPS(Sch2), WCA5	2017	
<i>Nyctalus noctula</i>	noctule	EPS(Sch2), WCA5, S41	2020	
<i>Pipistrellus pipistrellus</i>	common pipistrelle	EPS(Sch2), WCA5	2021	☑
<i>Pipistrellus pygmaeus</i>	soprano pipistrelle	EPS(Sch2), WCA5, S41	2021	
<i>Plecotus auritus</i>	brown long-eared bat	EPS(Sch2), WCA5, S41	2017	
Reptiles				
<i>Anguis fragilis</i>	slow-worm	WCA5, S41	2010	
<i>Natrix helvetica</i>	grass snake	WCA5, S41	1993	

Table 7: Noteworthy species records within 2 km of the site boundary.

Latin Name	Common Name	Designation
Amphibians		
<i>Bufo bufo</i>	common toad	WCA5, S41
Birds		
<i>Acanthis cabaret</i>	lesser redpoll	S41, Red
<i>Acanthis flammea</i>	common redpoll	Amber, GB RDB(CR)
<i>Accipiter nisus</i>	sparrowhawk	Amber
<i>Alauda arvensis</i>	skylark	S41, Red
<i>Anas americana</i>	wigeon	Amber
<i>Anas clypeata</i>	shoveler	Amber
<i>Anas crecca</i>	teal	Amber
<i>Anas platyrhynchos</i>	mallard	Amber
<i>Anas strepera</i>	gadwall	Amber
<i>Anser brachyrhynchos</i>	pink-footed goose	Amber
<i>Anthus pratensis</i>	meadow pipit	Amber
<i>Apus apus</i>	swift	Red, GB RDB(EN)
<i>Aythya ferina</i>	pochard	Red, GB RDB(EN)
<i>Chloris chloris harrisoni</i>	greenfinch	Red, GB RDB(EN)
<i>Chroicocephalus ridibundus</i>	black-headed gull	Amber, GB RDB(VU)
<i>Columba oenas subsp. oenas</i>	stock dove	Amber
<i>Columba palumbus</i>	woodpigeon	Amber
<i>Corvus frugilegus</i>	rook	Amber
<i>Cuculus canorus</i>	cuckoo	S41, Red, GB RDB(VU)
<i>Delichon urbicum</i>	house martin	Red, GB RDB(VU)

Latin Name	Common Name	Designation
<i>Dendrocopos minor</i>	lesser spotted woodpecker	S41, Red, GB RDB(EN)
<i>Emberiza schoeniclus</i>	reed bunting	S41, Amber
<i>Falco tinnunculus</i>	kestrel	Amber, GB RDB(VU)
<i>Gallinago gallinago</i>	snipe	Amber
<i>Larus argentatus</i>	herring gull	S41, Red, GB RDB(EN)
<i>Larus canus subsp. canus</i>	common gull	Amber
<i>Larus fuscus</i>	lesser black-backed gull	Amber
<i>Larus marinus</i>	great black-backed gull	Amber, GB RDB(EN)
<i>Linaria cannabina subsp. autochthona</i>	linnet	S41, Red
<i>Locustella naevia</i>	grasshopper warbler	S41, Red
<i>Mergus serrator</i>	red-breasted merganser	Amber, GB RDB(VU)
<i>Motacilla cinerea</i>	grey wagtail	Amber
<i>Muscicapa striata</i>	spotted flycatcher	S41, Red
<i>Passer domesticus</i>	house sparrow	S41, Red
<i>Passer montanus</i>	Eurasian tree sparrow	S41, Red, GB RDB(VU)
<i>Oenanthe oenanthe</i>	wheatear	Amber
<i>Phoenicurus phoenicurus</i>	redstart	Amber
<i>Phylloscopus trochilus</i>	willow warbler	Amber
<i>Poecile montana</i>	willow tit	S41, Red, GB RDB(EN)
<i>Prunella modularis</i>	dunnock	S41, Amber
<i>Pyrhula pyrrhula</i>	bullfinch	S41, Amber
<i>Saxicola rubetra</i>	whinchat	Red
<i>Scolopax rusticola</i>	woodcock	Red, GB RDB(VU)
<i>Sterna hirundo</i>	common tern	Amber
<i>Strix aluco</i>	tawny owl	Amber
<i>Sturnus vulgaris</i>	starling	S41, Red, GB RDB(VU)
<i>Sylvia communis</i>	whitethroat	Amber
<i>Troglodytes troglodytes</i>	wren	Amber
<i>Turdus philomelos</i>	song thrush	S41, Amber
<i>Turdus viscivorus</i>	mistle thrush	Red, GB RDB(VU)
<i>Vanellus vanellus</i>	northern lapwing	S41, Red, GB RDB(EN)
Invertebrates		
<i>Amphipoea oculea</i>	ear moth	S41
<i>Hydraecia micacea</i>	rosy rustic	S41
<i>Spilosoma lubricipeda</i>	white ermine	S41
<i>Timandra comae</i>	blood-vein	S41
<i>Tyria jacobaeae</i>	cinnabar	S41
Mammals		
<i>Erinaceus europaeus</i>	West European hedgehog	S41, GB RDB(VU)
Plants		
<i>Stellaria palustris</i>	marsh stitchwort	S41, GB RDB(VU), ENG BSBI RDB(VU)

APPENDIX D – ABBREVIATIONS

Table 8 displays abbreviations of protected species legislation.

Table 8: Glossary of abbreviations used in this report.

Code	Full Title	Explanation
Amber	Amber list	Amber listed species have a population status in the UK of medium conservation concern.
BAP	Biodiversity action plan	A plan that identifies threats to significantly important species and habitats, and sets out targets and actions to enhance or maintain biodiversity.
DA	The Deer Act 1991	All wild deer with the exception of Muntjac (<i>Muntiacus reevesi</i>) and Chinese Water deer (<i>Hydropotes inermis</i>) are protected by a closed season.
ENG BSBI RDB	A Vascular Plant Red List for England	A list published in 2014 by the Botanical Society of Britain and Ireland of the red list status of plants in England. Measured against standardised IUCN criteria.
ENG BSBI RDB(CR)	Critically endangered	A BSBI Red List designation for species at an extremely high risk of extinction.
ENG BSBI RDB(EN)	Endangered	A BSBI Red List designation for species at a very high risk of extinction.
ENG BSBI RDB(VU)	Vulnerable	A BSBI Red List designation for species at high risk of extinction.
EPS (Sch 2)	European protected species (Schedule 2)	European protected species of animals, listed on Schedule 2 of The Conservation of Habitats and Species Regulations 2017.
EPS (Sch 5)	European protected species (Schedule 5)	European protected species of plants, listed on Schedule 5 of The Conservation of Habitats and Species Regulations 2017.
GB RDB	Red data book species	Species identified in one of the UK Red Data 2001.
GB RDB(CR)	Critically endangered	An IUCN Red List designation for species at an extremely high risk of extinction.
GB RDB(EN)	Endangered	An IUCN Red List designation for species at a very high risk of extinction.
GB RDB(VU)	Vulnerable	An IUCN Red List designation for species at high risk of extinction.
HAP	Habitat action plan	A plan that identifies threats to a priority habitat and sets out targets and actions to enhance or maintain that habitat.
IUCN	International Union for Conservation of Nature and Natural Resources	A worldwide partnership and conservation network to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.
LBAP	Local biodiversity action plan	A plan that identifies threats to locally important species and habitats, and sets out targets and actions in Species Action Plans and Habitat Action Plans to enhance or maintain biodiversity at the county or regional level.
LHAP	Local habitat action plan	A plan that identifies threats to a locally important priority habitat and sets out targets and actions to enhance or maintain that habitat.
LSAP	Local species action plan	A plan that identifies threats to locally important species, and sets out targets and actions to prevent losing that species from the local area.
Notable	Scarce and threatened invertebrates	Invertebrate species which are estimated to occur within the range of 16 to 100 10km squares but subdivision into Notable A and Notable B categories is not possible as there is insufficient information available).
Notable: A	Scarce and threatened invertebrates	Taxa which do not fall within Red Data Book categories but which are none-the-less uncommon in Great Britain and thought to occur in 30 or

Code	Full Title	Explanation
		fewer 10km squares of the National Grid or, for less well-recorded groups, within seven or fewer vice-counties.
Notable: B	Scarce and threatened invertebrates	Taxa which do not fall within Red Data Book categories but which are none-the-less uncommon in Great Britain and thought to occur in between 31 and 100 10km squares of the National Grid or, for less-well recorded groups between eight and twenty vice-counties.
NN	Nationally notable	Designation for invertebrate taxa that are thought to be notably important in the UK.
NR	Nationally rare	Species in 15 or fewer hectads in Great Britain.
NS	National scarce	Species in 16-100 hectads in Great Britain.
OSPAR	OSPAR	Species listed on The Convention for the Protection of the Marine Environment of the North-East Atlantic
Red	Red list	Red listed species have a population status in the UK with high conservation concern.
SAP	Species action plan	A plan that identifies threats to significantly important species, and sets out targets and actions to prevent losing that species to extinction.
S41	Species of principal importance	Species of Principal Importance in England under The Natural Environment and Rural Communities (NERC) Act (2006)
UKBAP	UK biodiversity action plan	A plan that identifies threats to locally important species and habitats, and sets out targets and actions in species action plans and habitat action plans to enhance or maintain biodiversity in the UK.
WCA	The Wildlife and Countryside Act 1981 (as amended)	Containing 4 Parts and 17 Schedules, the Act covers protection of wildlife (birds, and some animals and plants), the countryside, National Parks, and the designation of protected areas, and public rights of way. All wild plants in Britain are protected from intentional uprooting by an unauthorized person, but land owners, land occupiers, persons authorized by either of these or persons authorized in writing by the local authority for the area are exempt. Protection for some species may be limited to certain Sections of the Act (e.g. S13(2)).
WCA1	Schedule 1 of The Wildlife and Countryside Act 1981 (as amended)	This Schedule lists birds protected by special penalties at all times, but virtually all wild birds have some protection in law. Acts which are prohibited for all wild birds (except derogated 'pest' species) include intentional killing, injuring or taking; taking, damaging or destroying nests in use or being built; taking or destroying eggs; possessing or having control of (with certain exceptions but including live for dead birds, parts or derivative); setting or permitting certain traps, weapons, decoys or poisons. Selling, offering or exposing for sale, possessing or transporting for sale any live wild bird, egg or part of an egg or advertising any of these for sale, or dead wild bird including parts or derivatives are also prohibited. Many birds must be formally registered and ringed if kept in captivity. Schedule 1 WCA birds are additionally protected from intentional or reckless disturbance while building a nest, or when such a bird is in, on or near a nest containing eggs or young, or intentional or reckless disturbance of dependent young.
WCA5	Schedule 5 of The Wildlife and Countryside Act 1981 (as amended)	Schedule 5 animals are protected from intentional killing, injuring or taking; possessing (including parts or derivatives); intentional or reckless damage, destruction or obstruction of any structure or place used for shelter or protection; selling, offering or exposing for sale, possessing or transporting for the purpose of sale (alive or dead, including parts or derivatives). Protection of some species is limited to certain Sections of the Act (e.g. S9(1), S9(4a), S9(4b), S9(5)).
WCA8	Schedule 8 of The Wildlife and Countryside Act 1981 (as amended)	Plants and fungi protected from intentional picking, uprooting, destroying, trading (including parts or derivatives), etc.

APPENDIX E – TARGET NOTES

The locations of the following target notes are shown in *Figure 2*.

Target Note 1: Mixed scrub, self-seeded young trees. Some young trees are above 5m tall but all trees are very young and leggy and have all been self-seeded. The area has no dominant species but patches are dominated by Bramble (*Rubus fruticosus* agg.). Other species present; Ash (*Fraxinus excelsior*) saplings, Beech (*Fagus sylvatica*) saplings, Butterfly-bush (*Buddleja davidii*), Cotoneaster (*Cotoneaster* sp.), Dog-rose (*Rosa canina*), Dogwood (*Cornus sanguinea*), Gorse (*Ulex europaeus*), Hard Rush (*Juncus inflexus*), Hawthorn (*Crataegus* spp.), Holly (*Ilex aquifolium*), Horse-chestnut (*Aesculus hippocastanum*) saplings, Ivy (*Hedera helix*), Pendulous Sedge (*Carex pendula*), Silver Birch (*Betula pendula*), Sycamore (*Acer pseudoplatanus*), White Clover (*Trifolium repens*), Wild Cherry (*Prunus avium*), Willows (*Salix* spp.), Yew (*Taxus baccata*), Yorkshire-fog (*Holcus lanatus*).

Target Note 2: Line of trees along north-western site boundary. Habitat below is mixed scrub which may have been planted and managed in the past but is currently unmanaged and overgrown. Trees are semi-mature and mature. Most trees are Sycamore but occasional Beech trees also present. Low cover of Ivy on the trees but not considered to be a feature for roosting bats. One tree has bat boxes located on trunk (see TN8 for further detail), all other trees are assessed as negligible for roosting bats.

Target Note 3: Line of trees located along southern site boundary, similar to TN2. Trees in the north-western section of the line are semi-mature and mature, trees within the central section of the line are young to semi-mature and trees within the south eastern section are mature. Tree species present include Large-leaved Lime (*Tilia platyphyllo*), Pedunculate Oak (*Quercus robur*) and Sycamore. Several trees were noted with potential roosting features (PRFs) suitable for bats or bat boxes installed on trunk (see TN9, TN10, TN11 and TN12 for further detail). Trees are pruned on southern aspect.

Target Note 4: Line of trees located along south-eastern site boundary. Trees are mostly semi-mature with occasional mature trees present. Tree species include: Ash, Horse-chestnut and Sycamore. Three trees identified with PRFs or bat boxes installed (see TN13, TN14 and TN15 for further information). Trees are pruned on south-eastern aspect and Ash tree has been pollarded.

Target Note 5: There are small areas which have been planted with introduced / ornamental planted shrubs. Species present include: Bamboo (*Bambusa* sp.), Barberry (*Berberis* sp.), Birch (Ornamental variety) (*Betula* sp.), Boxed-leaved Honeysuckle (*Lonicera pileate*), Bracken (*Pteridium* sp.), Cherry Laurel (*Prunus laurocerasus*), Cherry (*Prunus* sp.), Cotoneaster, Hebe (*Hebe* sp.), Holly, Horse-chestnut, Snowberry (*Symphoricarpos albus*), Willow (*Salix* sp.).

Target Note 6: Building located immediately adjacent the proposed site boundary. It is anticipated that the external wall will contact to the new building and as such was subject to a preliminary roost assessment. The building was built around 2005 and is a modern design. Constructed from brick with a flat metal roof. There are exposed steel beams also present in the walls. The roof is generally in good condition with no PRFs noted. There are metal barge boards on all aspects, which are slightly lifted on the eastern aspect. The walls are generally in good condition, but missing mortar was noted on the eastern and southern aspects of the building. Furthermore, there are weep holes on all aspects of the building, the majority are

blocked with a plastic vent. However, several vents are missing on the eastern and southern aspect, which provide opportunities for roosting bats. There are also wooden built structures on the eastern and southern aspect, which have slight gaps between them and the brick walls. The windows and doors are metal and are in excellent condition and tightly sealed. Overall, a small number of PRFs were noted which could be used by small numbers of bats, occasionally. The quality of roosting habitat within the building is considered to be low.

Target Note 7: Area of hardstanding which is currently used as a car park.

Target Note 8: Three bat boxes on Sycamore tree located on several aspects. All bat boxes are Schwegler 2F.

Target Note 9: Mature sycamore with knot hole on northern aspect approximately 10m high and wound on northern aspect c.10m high.

Target Note 10: Mature Sycamore tree with three Schwegler 2F bat boxes installed on trunk of tree, northern, southern and western aspects.

Target Note 11: Mature Sycamore tree with knot hole on the eastern aspect, approximately 5m high.

Target Note 12: Mature Sycamore tree with knot hole / pruning cut on northern aspect c. 5m high.

Target Note 13: Mature Horse-chestnut tree with knot hole on western aspect, c. 4m high.

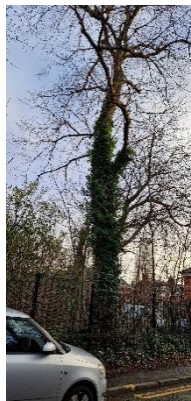
Target Note 14: Mature Ash tree which has been pollarded, three 2F schwegler bat boxes have been installed on trunk on the western, northern and eastern aspects. The entrance to the bat boxes are very cluttered due to ash regrowth.

Target Note 15: Semi-mature Horse-chestnut tree with pruning cut/ wound on the eastern aspect approximately 5m high.

Target Note 16: Cotoneaster plants. Individual plants of cotoneaster recorded within areas of scrub.

APPENDIX F – GROUND LEVEL TREE ASSESSMENT PHOTOGRAPHS

Table 9: Ground level tree assessment photographs.

Target note	Species	Tree Description	Photo	Roosting potential
TN8	Sycamore (<i>Acer pseudoplatanus</i>)	Three bat boxes on Sycamore tree located on several aspects. All bat boxes are Schwegler 2F.		High
TN9	Sycamore (<i>Acer pseudoplatanus</i>)	Mature Sycamore with knot hole on northern aspect approximately 10m high and wound on northern aspect approximately 10m high.		moderate
TN10	Sycamore (<i>Acer pseudoplatanus</i>)	Mature Sycamore tree with three Schwegler 2F bat boxes installed on trunk of tree, northern, southern and western aspects.		High

TN11	Sycamore (<i>Acer pseudoplatanus</i>)	Mature Sycamore tree with knot hole on the eastern aspect, c. 5m high.		Low
TN12	Sycamore (<i>Acer pseudoplatanus</i>)	Mature Sycamore tree with knot hole / pruning cut on northern aspect c. 5m high.		Moderate
TN13	Horse-chestnut (<i>Aesculus hippocastanum</i>)	Mature Horse-chestnut tree with knot hole on western aspect, c. 4m high.		Low

TN14	Ash (<i>Fraxinus excelsior</i>)	Mature Ash tree which has been pollarded, three 2F Schwegler bat boxes have been installed on trunk on the western, northern and eastern aspects. The entrance to the bat boxes are very cluttered due to ash regrowth.		High
TN15	Horse-chestnut (<i>Aesculus hippocastanum</i>)	Semi-mature Horse-chestnut tree with pruning cut/ wound on the eastern aspect c. 5m high.		Low



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