

PRELIMINARY ECOLOGICAL APPRAISAL

December 2022

Albert Bridge House

1 Bridge Street

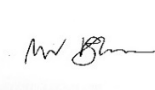
Manchester

M60 9AF

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NON-TECHNICAL EXECUTIVE SUMMARY

Oval Real Estate are proposing to develop Albert Bridge House in Manchester (hereafter referred to as 'the site'). The proposals include the demolition of all buildings currently present on site and the construction of a mixed-use scheme with residential and office buildings, up to 44 and 17 storeys.

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

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

Current Site Use and Adjacent Site Use	The site is currently in use as an office block, with commercial and residential buildings present on all aspects.
Potential Impacts on Designated Sites	No potential impacts on designated sites nearby to the site are anticipated to occur due to the proposed development. The site is located at a sufficient distance from nearby designated sites, and the proposed development activities have been considered.
Habitats	The site comprised predominantly hardstanding and buildings, surrounded by introduced shrub and scattered broadleaved trees. The River Irwell is present immediately adjacent to the north of the site.
Ecological Constraints	The following potential ecological constraints were identified during the assessment: • Vegetation and bird nesting boxes present on site provide nesting opportunities for common bird species. • The River Irwell is likely an important foraging/commuting feature for bats. • The River Irwell is known to support otter although limited suitable habitat for this species is present adjacent to the site.
Recommended Ecological Mitigation	The following mitigation measures are recommended to minimise potential impacts due to the proposed development: • Precautionary Working Methods during the construction phase for otter and foraging/commuting bats. • If any vegetation requires removal, it should be completed outside of the breeding bird season (March to September, inclusive). If this is not feasible, a Nesting Bird Check is to be completed by a qualified ecologist within 48 hours before removal is completed. • It is recommended that an invasive species walkover is completed during the optimal time of year to assess the site for the presence of these species. • Production of an Invasive Species Method Statement by a qualified contractor.
Recommended Further Surveys and Reports	No further surveys are required to facilitate this development
Recommended Ecological Enhancements	The National Planning Policy Framework (NPPF) (2021) highlights the requirement for planning policies and decisions to conserve and enhance the natural environment. The proposed development provides the opportunity to enhance the site and ecological enhancements have been recommended.

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1 Introduction

1.1 Background to the Scheme

Oval Real Estate Limited are proposing to develop Albert Bridge House in Manchester (hereafter referred to as 'the site'). The proposals include the demolition of all buildings currently present on site and the construction of a mixed-use scheme with residential and office buildings, up to 45 and 19 storey's, respectively. Urban Green have been appointed to undertake a Preliminary Ecological Appraisal (PEA) of the site.

The author of the report is Mark Blacker, MSc, ACIEEM, Senior Ecologist at Urban Green. Mark has experience providing ecological consulting services for a range of development schemes across the UK, including residential, commercial, and large infrastructure schemes.

1.2 Site Context

The site is located at National Grid Reference SJ 83417 98369 and comprises a total area of approximately 0.8ha (see Figure 1).

Figure 1 – Site Extent



The site is located in the north of Manchester city centre, immediately adjacent to the River Irwell. Commercial and residential buildings surround the site on all aspects. Bridge Street is present along the south western border of the site which is a busy main road through the centre of Manchester. A

footpath is present along the eastern site boundary which connects to a footbridge over the River Irwell.

1.3 Purpose of this Report

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

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

The National Planning Policy Framework (NPPF) (2021) and other Local Planning Policies are considered with the PEA. Ecological enhancements are advised to be in line with relevant Planning Policies.

2 Methods

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

2.1 Desk Study

2.1.1 Online Resources and Local Records Centre

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

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

Table 1 – Desk Study Sources of Information

Source	Date Consulted	Information Sought
MAGIC website (www.magic.gov.uk)	14/02/2022	Locations of statutory designated sites within 1km of the site boundary. Locations of Natura 2000 sites (Ramsar, Special Area of Conservation (SAC) and Special Protection Area (SPA)) within 5km of the site boundary. Locations of European Protected Species Licences (EPSL) and Class Licences within 1km.
Natural England (https://designatedsites/.naturalengland.org.uk/)	14/02/2022	Relevant statutory designated site citations.
JNCC (https://jncc.defra.gov.uk/)	14/02/2022	Information on European wildlife sites. Details of relevant Section 41 species and habitats.
Greater Manchester Ecology Unit	14/02/2022	Locally designated wildlife sites within 1km of site boundary. Records of protected and notable species within 1km of the site boundary.
Greater Manchester Local Biodiversity Action Plans	14/02/2022	Species and habitats which are given special conservation status at the local level.

2.2 Field Survey

2.2.1 Vegetation

The site was subject to a field survey on 4th February 2022, by Assistant Ecologist Jake Healy and Senior Ecologist Mark Blacker. The weather conditions were 8°C, overcast (5/8 oktas), wind speed 1 Beaufort scale.

The methods were based on the standard methodology as detailed by *JNCC Handbook for Phase 1 Habitat Survey* (JNCC, 2010). A Phase 1 Habitat Plan has been produced to demonstrate habitats within the proposed development and the surrounding area. The mapping techniques are based on *the Phase 1 Habitat Survey* (JNCC, 2010) guidance.

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

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

Table 2 – Key to Species Abundance

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

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

2.2.2 Fauna

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

- Suitability of any ponds to support notable and protected amphibians, and the suitability of the site’s terrestrial habitats to support amphibians.
- Suitability of the site to support reptiles by way of habitat structure and refuge piles, as well as links to the wider landscape.
- Search of any watercourses for signs or suitability for white clawed-crayfish (*Austropotamobius pallipes*), water vole (*Arvicola amphibius*) and otter (*Lutra lutra*) by way of burrows, resting places, holts, and foraging signs.
- Suitability of the site to support notable bird species. Bird nests and droppings of notable and protected bird species.
- Suitability of the site to support notable invertebrates.
- Search of the site for any invasive species.
- Badger (*Meles meles*) field signs such as setts, mammal, paths, snuffle holes and latrines.

- Suitability of the site to support notable terrestrial mammals including harvest mouse (*Micromys minutus*) and brown hare (*Lepus europaeus*).

2.3 Bat Assessment

2.3.1 Preliminary Roost Assessment

A Preliminary Roost Assessment (PRA) was carried out on the site buildings and trees using a high-powered torch and close-focussing binoculars.

The PRA methodology is based on information contained within the Bat Conservation Trust (BCT) guidelines, 3rd edition (Collins, 2016). The categorisation within this report is based on that set out in Table 3, which is used as a basis for determining the requirement for further surveys.

Table 3 – Suitability of Buildings and Trees for Roosting Bats (adapted from Collins, 2016)

Category of Suitability	Typical Characteristics	Further Survey Requirements
High Roost Suitability	A structure/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.	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. Surveys can be undertaken between May and September, with at least two surveys between May and August.
Moderate Roost Suitability	A structure/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 are unlikely to support a roost of high conservation status.	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey. Surveys can be undertaken between May and September with at least one survey between May and August.
Low Roost Suitability	A structure/tree 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 condition and/or suitable surrounding habitat to be used on a regular basis by larger numbers of bats.	Structures: one emergence/re-entry survey between May and August. Trees: No further survey required but precautionary methods of felling recommended.
Negligible Suitability	Negligible habitat features on site likely to be used by roosting bats.	No further work required.

2.3.2 Commuting and Foraging Bats

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

The commuting and foraging assessment methodology is based on information contained within the Bat Conservation Trust guidelines 3rd edition (Collins, 2016). The categorisation within this report is

based on that set out in Table 4, which is used as a basis for determining the requirement for further surveys.

Table 4 – Suitability of Site for Foraging and Commuting Bats (adapted from Collins, 2016)

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

2.4 Constraints to the Survey

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

This PEA does not constitute a full botanical survey. The protected species assessment provides a view of the likelihood of protected species occurring on the site based on the known distribution of species in the local area and the suitability of the habitat. It should not, however, be taken as providing a full and definitive survey of any protected species group.

February is a suboptimal time for carrying out a Phase 1 Habitat Surveys due to being outside of the optimal plant growing season. Therefore, it is likely that some plants are present on the site but were not evident at the time of the survey and were not recorded. This is not considered to be a significant constraint with regards to the general Phase 1 Habitat Survey results as the habitats remained consistent with previous surveys, and due to the size and location of the site and limited extent of the habitats, it is considered very unlikely that any rare or priority plant species were missed.

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

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

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

2.5 Lifespan of Report

In accordance with CIEEM's Advice Note on the Lifespan of Ecological Reports and Surveys (CIEEM, 2019), the details of this report will remain valid for a period of **18 months** from the date of the survey (i.e., until 4th August 2023). After this date, this assessment should be reviewed to determine whether any updated surveys are required.

2.6 Definitions

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

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

3 Baseline Ecological Conditions

3.1 Desk Study

3.1.1 Site Location

The site lies within a densely urban area of Manchester, with commercial and residential buildings present in the immediate vicinity on all aspects. The River Irwell is present immediately adjacent to the north of the site, with patches of vegetation present along the banks. It is anticipated these habitats will provide suitable foraging, resting, and commuting resources within the local area for a variety of wildlife, such as birds, bats, and other terrestrial mammals.

3.1.2 Designated Sites

No sites that form part of the National Site Network were located within 5km of the site boundary. No statutory sites or non-statutory designated sites are located within 1km of the site.

The site falls within the Impact Risk Zone of Rochdale Canal Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI). This site is located approximately 6.2km east of the site. This site is designated for the significant populations of floating water-plantain (*Luronium natans*) and diversity of pondweed species (*Potamogeton* sp.) supported within the predominantly mesotrophic waters, based on consultation with MAGIC.:

3.1.3 Flora and Fauna

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

Vascular Plant

The data search returned four records of Bee Orchid (*Ophrys apifera*) within 1km of the site. The closest record was present approximately 800m south west of the site. This species is protected under Section 13 of the Wildlife and Countryside Act 1981 (as amended).

Invertebrates

The desk study returned three records of cinnabar moth (*Tyria jacobaea*) and eight records of white-letter hairstreak (*Satyrrium w-album*) present within 1km of the site. The closest record was of a cinnabar moth present approximately 750m, south west of the site.

All species records returned are listed on Section 41 of the Natural Environment and Rural Communities Act (NERC) 2006.

Birds

A total of 95 records of protected or notable birds were returned within 1km of the site as detailed in Table 5.

Table 5 – Protected or notable birds recorded within 1km

Scientific Name	Common Name	Protection	Closest Record to Site	
			Approx. Min. Distance (m)	Date
<i>Phoenicurus ochruros</i>	Black Redstart	Sch.1****, BoCC5**	250m	2018

Scientific Name	Common Name	Protection	Closest Record to Site	
			Approx. Min. Distance (m)	Date
<i>Alcedo atthis</i>	Kingfisher	Sch.1****, BoCC5**	150m	2014
<i>Charadrius dubius</i>	Little ringed plover	Sch.1****	800m	2011
<i>Falco peregrinus</i>	Peregrine	Sch.1****	15m	2018
<i>Falco subbuteo</i>	Hobby	Sch.1****	600m	2008
<i>Pyrrhula pyrrhula</i>	Bullfinch	BoCC5**, S41*****	750m	2016
<i>Cuculus canorus</i>	Cuckoo	BoCC5*, S41*****	500m	2017
<i>Numenius arquata</i>	Curlew	BoCC5*, S41*****	500m	2020
<i>Prunella modularis</i>	Dunnock	BoCC5**, S41*****	50m	2019
<i>Larus argentatus</i>	Herring gull	BoCC5*, S41*****	900m	2015
<i>Passer domesticus</i>	House sparrow	BoCC5*, S41*****	500m	2019
<i>Vanellus vanellus</i>	Lapwing	BoCC5*, S41*****	800m	2012
<i>Carduelis cannabina</i>	Linnet	BoCC5*, S41*****	800m	2017
<i>Alauda arvensis</i>	Skylark	BoCC5*, S41*****	750m	2012
<i>Turdus philomelos</i>	Song thrush	BoCC5**, S41*****	750m	2016
<i>Muscicapa striata</i>	Spotted flycatcher	BoCC5*, S41*****	600m	2014
<i>Sturnus vulgaris</i>	Starling	BoCC5*, S41*****	600m	2015

* Red list of BoCC5 (2021)

** Amber list of BoCC5 (2021)

*** Black list BoCC5 (2021)

**** Section 21 of the NERC Act (2009)

***** Schedule 1 or 5 of the WCA (1981)

Bats

The desk study returned 39 records of bat roosts within 1km of the site. These related to common pipistrelle (*Pipistrellus pipistrellus*), Daubenton's bat (*Myotis daubentonii*), soprano pipistrelle (*Pipistrellus pygmaeus*), and an unidentified pipistrelle species (*Pipistrellus* sp). The closest roost record was that of an unidentified bat species present approximately 450m north-west of the site in 2012.

The desk study returned 74 auditory field records of bats from within 1km of the site, including brown long-eared bat (*Plecotus auritus*), common pipistrelle, and soprano pipistrelle.

MAGIC also detailed the presence of nine granted EPSL within 1km of the site relating to bats. These licences were permitted to either allow the disturbance or destruction of a resting place for common pipistrelle or brown long-eared bat. The closest licence was located approximately 350m south of the site (reference: EPSM2012-5061 and EPSM2012-4767) and allowed for the destruction of a common pipistrelle resting place and the destruction of a brown long-eared bat breeding and resting place

Hedgehog

The desk study returned two records of hedgehog from within 1km of the site, with the most recent record from 2020, located approximately 500m north of the site.

Otter

The desk study returned two records of otter from within 1km of the site, with the most recent record from 2018, located approximately 700m north of the site. Otter are a European protected species under Annex II of the Conservation of Habitats and Species Regulations and are also listed on Section 41 of the NERC Act (2006).

Badger

One record of badger was returned approximately 900m south east of the site. No further details were attributed to this record.

No Records Returned

The data search returned no records for:

- White-clawed crayfish
- Common amphibians
- Great crested newt
- Reptiles
- Water vole

3.2 Field Survey

The site habitats and accompanying Target Notes are presented in the Phase 1 Habitat Map in Appendix 3.

3.2.1 Introduced Shrub

This habitat was present in small patches within the borders of the car park to the west of the site. This habitat contained predominantly non-native species, with snowberry (*Symphoricarpos albus*) dominant, with cherry laurel (*Prunus laurocerasus*) present frequently. Ivy (*hedera helix*) was also dominant in the ground layer within this habitat.



Photograph 1 – Introduced scrub within the car park of Albert Bridge House

3.2.2 Scattered broadleaved trees

Scattered broadleaved trees were present along the northern and western site boundary. Most of these trees were mature and well established, with some cover of ivy present on the tree stems. Species present included crack willow (*Salix fragilis*), sycamore (*Acer pseudoplatanus*), and ash (*Fraxinus excelsior*). Three trees within this area were noted to have bird boxes present on the main stems, these have been marked on the habitat map provided in Appendix 3 as TN1, TN2, and TN3. A number of scattered trees are also present within the eastern section of the site which form part of a public walkway.



Photograph 2 – Scattered trees within the car park of Albert Bridge House

3.2.3 Buildings

Four buildings were identified within the site, each connected by covered ground level walkways. Buildings were constructed of concrete and glass, and were of a range of heights, from one storey up to 18 stories. Three of the buildings had structures on the roof that were inspected at the time of survey. For a full description of all buildings present on site, please see Appendix 2.

3.2.4 Hardstanding

Hardstanding was prevalent throughout the site within the car parks and pedestrian walkways. This surface provides negligible ecological value and formed the majority of the surfaces within the site

3.2.5 Ephemeral/Short Perennial

A strip of ephemeral/short perennial vegetation is present along the northern boundary of the site, associate with an artificial embankment along the River Irwell. This area comprises bare ground as well as frequent ivy and giant hogweed (*Heracleum mantegazzianum*).

3.3 Site Suitability for Protected and Notable Species

3.3.1 Species Discounted from Assessment

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

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

3.3.2 Vascular Plants

The site contained mostly hardstanding and buildings with scattered areas of introduced shrub. These habitats were poor quality and not considered suitable to support populations of protected or notable plant species, which are not discussed further within this report.

3.3.3 Invertebrates

No deadwood, aquatic habitats or high floristic diversity was located on site which would provide an important resource for invertebrates during their life cycle. It is anticipated common species will be present due to the presence of the River Irwell adjacent to the site. Records of cinnabar moth and white-letter hairstreak were returned within the desk study; the caterpillars of these species feed almost exclusively of ragwort or elm species, respectively. Neither of these species were observed on site, therefore the site is not anticipated to support these notable invertebrate species.

Overall, the presence of notable invertebrates within the site is reasonably discounted and not discussed further within this report.

3.3.4 Amphibians

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

The site comprised mostly hardstanding and buildings, with limited patches of introduced shrub. No ornamental water bodies were present, and the River Irwell does not provide suitable habitat to support this species group.

The presence of great crested newts and other common amphibians within the site is reasonably discounted, and not discussed further within this report.

3.3.5 Reptiles

The site was found to provide limited value for reptiles, given the majority of the site comprised hardstanding and buildings, with limited patches of introduced shrubs, which lack the structure and habitat quality to support the species group.

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

3.3.6 Birds

Ground Nesting

Records of ground nesting bird species such as skylark and lapwing were returned during the desk study, however the high level of anthropogenic disturbance present on site makes the site unsuitable to support ground nesting birds.

Wintering

The site offers negligible suitable habitat for wintering birds due to a lack of suitable food sources that could sustain birds over winter and the high level of disturbance that is present on site due to the city centre location.

Birds of Prey

There are multiple records of peregrine falcon roosting on buildings within Manchester city centre, however no suitable features were observed within any of the buildings associated with the site, such as window ledges or similar.

Passerine

The vegetation present adjacent to the River Irwell was assessed to be of highest value to birds on site, with long-tailed tits (*Aegithalos caudatus*), robin (*Erithacus rubecula*), and great tit (*Parus major*) all observed using this vegetation during the survey. Bird boxes were also fixed to three trees around the periphery of the car park present to the west of the site.

Records of black redstart were returned within the desk study, however no suitable habitat to support these species was observed on site, and the roof of each building was deemed unsuitable for nesting as there was no established vegetation present to provide shelter.

The site has value to nesting birds through the vegetation and nesting boxes found on site.

3.3.7 Bats

Preliminary Roost Assessment

A PRA was completed on all structures and trees located on site and adjacent. Please refer to Appendix 2 for the results of the PRA.

In summary, none of the buildings or trees present on site were assessed as providing potential to support a bat roost.

Commuting and Foraging Bats

The site offers negligible suitable foraging habitat for bats due to the prevalence of built area and introduced species present on site that will support negligible invertebrate populations. The River Irwell present immediately adjacent to the site will likely be used as a commuting route for local bat populations and is therefore of value.

The site is therefore of low value to commuting and foraging bats due to the trees present adjacent to the River Irwell providing a strong linear feature that will likely be used by bats.

3.3.8 Hedgehog

The scattered trees and introduced shrub present on site offer limited suitable habitat for this species due to their isolation. The site is surrounded by busy roads which will provide a significant barrier to hedgehog dispersal onto site.

Hedgehog are not anticipated to be present on site and are not discussed further within this report.

3.3.9 Water vole

No records of water vole were returned within 1km of this site, and the River Irwell was considered to be too fast flowing with steep banks to provide suitable habitat for water vole. This species was considered to be absent from site and not discussed further within this report.

3.3.10 Otter

Records of otter were returned on the River Irwell within 1km of the site. The vegetation present on site adjacent to the River Irwell was checked for any signs of otter, however none were observed. The banks within this section of the river are steep and offer limited suitable habitat for an otter to establish a holt or as a suitable resting place.

The site offers limited suitable habitat of value to otter.



Photograph 3 – Bank side habitat adjacent to Albert Bridge House and River Irwell

3.3.11 Badger

No evidence of badger use was observed on site and no suitable habitat is present for this species on site or within the surrounding area.

This species is therefore considered to be absent from site and not considered further within this report.

3.4 Invasive Species

Giant hogweed (*Heracleum mantegazzianum*) was present on the site during the field survey (TN1). This species is listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) as (an) invasive non-native species.

4 Ecological Constraints and Recommended Mitigation

4.1 Proposed Development

Oval Real Estate Limited are proposing to develop Albert Bridge House in Manchester. The proposals include the demolition of all buildings currently present on site and the construction of a mixed-use scheme with residential and office buildings, up to 45 and 19 storey's, respectively.

4.2 Designated Sites

The site is located within the impact risk zone for Rochdale Canal SAC and SSSI. This designated site is located approximately 6.2km east of the site and separated by anthropogenic barriers such as residential and commercial areas. The development proposals do not fall within the development activities that would trigger further discussion with Natural England. Therefore, no impacts as a result of development are anticipated to this designated site.

4.3 Habitats

The site comprised habitats that were found to be widespread within the local area; however, they did contain value for wildlife such as bats, birds, and terrestrial mammals. The scattered broadleaved trees are of highest value within the site and should be suitably protected during the construction phase to avoid damage to the longevity of these important ecological features.

Generally, the protection measures of retained trees will be through the use of temporary protective demarcation fencing to protect the trees. The fencing must extend outside the canopy of the retained trees and must remain in position until development is complete to ensure protection is provided throughout the construction phase.

The fencing will be in accordance with BS 5837:2012 Trees in Relation to Design, Demolition and Construction: Recommendations. Further details of tree protection areas is provided within the Arboricultural Impact Assessment (AIA) produced for this project (Urban Green, 2022a).

It is recommended that planting is carried out to compensate for loss of shrub species. It is recommended that the planting comprises native species and species known to be of value for the attraction of wildlife. This will include fruiting and flowering species.

The River Irwell is present immediately adjacent to the northern boundary of the site. This is an important habitat feature which provides value to multiple protected species such as kingfisher and otter known to be present in the surrounding area.

Therefore, it is recommended that a detailed Construction and Environment Management Plan (CEMP) specific to the proposed development is created (and adhered to throughout the course of construction works) to avoid, minimise, and mitigate for negative impacts resulting from construction practices on all habitats surrounding the site.

This plan will detail measures to avoid, minimise or mitigate any potential negative effects caused by construction practices on the environment on and surrounding the site including:

- The control of run-off from areas of arisings to prevent any pollutants/contaminants entering nearby waterbodies.
- Appropriate measures to suppress dust during hot, dry and/or windy conditions.

- Excavations should be sealed overnight or should have at least one shallow-sloping side to allow any animals that may fall in to escape.
- An ecologist should be contacted for advice should any protected species be discovered during construction.

4.4 Fauna

4.4.1 Birds

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

As part of the development, the mature trees present within the car park and along the border with the River Irwell are to be retained. It is recommended that further planting is implemented throughout the site to include native shrubs and tree species, particularly fruit/seed bearing species and those that provide pollen and/or nectar (such as *Prunus* sp., *Malus* sp., *Sorbus* sp., *Viburnum* sp., etc.) should be used to create opportunities for bird species.

4.4.2 Bats

Foraging and Commuting Bats

The site itself is of negligible value to commuting or foraging bats due to a lack of suitable habitat present on site and the density of built surfaces present. However, the River Irwell is immediately adjacent to the site and this river has potential to be of value to bats as a commuting route across the city.

All bat species are sensitive to lighting and may be impacted by the proposed development, should no mitigation for lighting be considered.

Lighting mitigation should follow the guidance outlined in the Institute for Lighting Engineers document “Guidance for the Reduction of Obtrusive Lighting” (2005) and BCT’s “Bats and Artificial Lighting in the UK” (2018).

Construction lighting should not be directed towards retained and surrounding habitats including the scattered broadleaved trees and the River Irwell. The construction lighting may impact bats which are sensitive to light. Directional lighting will be achieved by angle and orientation of beam, use of a cowl, louvre or other light shield, or a combination of these.

An External Lighting Scheme had not been produced on the writing of this report. As such, the following recommendations are to be considered within the scheme during its condition, to minimise impacts of lighting. The recommendations are as follows:

- Keep site lighting to minimum levels.
- Luminaries should lack UV elements and preferably LED lighting with a warm white light should be used over cool white light (ideally <2700Kelvin).
- Lighting should feature peak wavelengths greater than 550nm.
- Internal lighting should be positioned away from windows to minimise light spill, where appropriate.

- Light placement should be downward facing to prevent excess horizontal or vertical light spill.
- The use of integrated fittings such as cowls, shields, louvres, and hoods, that effectively contain light spill from unintended areas, where appropriate.
- The use of hard landscaping features to block light and create dark corridors.
- Avoid illuminating any suitable retained bat habitats, particularly the hedgerows and trees, which are potential commuting and foraging habitat for bats.
- Use of timed security lights should be set on motion-sensors and using short, 1-minute timers, to minimise light use, where appropriate.
- Column heights of lighting can be considered to minimise light spill.

4.4.3 Otter

The banks of the River Irwell provide limited suitable habitat to support otter, and no signs of this species were observed at the time of survey. The implementation of a CEMP as outlined within Section 4.3 will control for any indirect impacts to the watercourse.

The following Reasonable Avoidance Measures should be followed throughout the construction phase:

- Prior to construction starting, a walkover survey for otter along the River Irwell will be conducted to assess for the presence of otter.
- All site personnel are to be inducted through use of a toolbox talk, on the presence of otters, their legal protection and working limits.
- Regular inspections of the watercourse and its banks for any sign of otter holts or activity. These should be undertaken by an ecologist at regular intervals during the operation of the site.
- Any man-made excavations, trenches or pits relating to the development that must remain open overnight, will either be securely fenced off or covered up overnight to avoid entrapment of otters, if left open, access ramps (e.g., mammal ladders, a roughened plank or even a ramp of earth) will be placed within the excavation each night near to crossing points to allow any animals that accidentally fall into the excavation a means of climbing out.
- Any temporarily exposed open pipe system will be capped in such a way as to prevent otters gaining access, as this may happen when contractors are off-site.
- Nocturnal lighting should be directed away from the River Irwell.

If in the unlikely chance an otter is discovered on site, the project ecologist is to be contact immediately and Natural England are to be informed.

4.5 Invasive Species

Giant Hogweed, a non-native invasive flora species, was identified during the site walkover. As such, it is recommended, prior to the development commencing on site, that an invasive species specialist should be contracted to map the extent of invasive species present within the site and produce a detailed management plan for the removal and eradication of such species onsite.

5 Further Surveys

No further surveys are required to facilitate this project. This is based on the red line boundary and site proposals provided at the time of survey. If either of these should change significantly, an ecologist advice should be sought to understand if any further survey effort is required.

6 Opportunities for Enhancement

The National Planning Policy Framework (NPPF) (2021) highlights the requirement for planning policies and decisions to conserve and enhance the natural environment.

Paragraph 174 states that this should be achieved by (in terms of this assessment only):

- a) *protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- d) *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*

Specific enhancement recommendations for the site include the following:

- Bat and bird boxes could be placed on the new buildings / retained trees. A plan to show the locations of these boxes and the specifications should be produced by a suitably qualified ecologist once the layout is finalised.
- An ecologically sensitive planting scheme could be incorporated on the site to promote invertebrate use of the site, which could benefit local bat and bird species. It is recommended that elm species such as wych elm (*Ulmus glabra*), English elm (*Ulmus procera*), or small-leaved elm (*Ulmus minor*) are included within the species to be planted as these are the caterpillar food plants of the white-letter hairstreak butterfly, of which records were returned within 1km of the site.
- Kingfisher are known to use the River Irwell; therefore, nesting tubes should be installed within the bank of the River Irwell and within river facing surfaces to provide additional nesting habitat for this species.
- Black redstarts are known to be present within Manchester city centre, this site can increase the availability of suitable foraging and nesting habitat for this species by including a black redstart friendly green roof within the design.
- Peregrine falcons are known to be present within Manchester city centre. This project provides an opportunity to enhance the nesting provision by the inclusion of suitable ledges within the scheme design that will increase the availability of nesting habitat.

Biodiversity Net Gain (BNG) is a requirement for development projects within Greater Manchester, in which all new developments should aim to deliver net gains in biodiversity using the Biodiversity Metric 3.1 to demonstrate the gain and describe how the development has met the requirements of BNG good practice principles (Urban Green, 2022b).

A BNG assessment of this site has been conducted by Urban Green, based on the finalised landscape proposals. This assessment has shown that the development will lead to a 27% gain in value to the environment as a result of the development. This assessment is also accompanied by a habitat management plan which will last for a period of 30 years to ensure the proposed habitats reach the anticipated condition (Urban Green, 2022c).

7 Conclusion

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

- The major habitats identified on site included introduced shrub and scattered broadleaved trees.
- Potential ecological constraints identified included birds and otters and are detailed in Section 3.
- Mitigation recommendations to be completed prior and during the construction phase for nesting birds and otters have been detailed in Section 4.
- No further surveys are required to facilitate this development.
- Ecological enhancements specific to this development are listed within Section 6.

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Appendix 1 – Relevant Legislation

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

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

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

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

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

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

- Under the Conservation of Habitats and Species Regulations 2017 it is an offence to:
- Deliberately capture, injure, or kill any wild animal listed as a European Protected Species;
- Deliberately disturb wild animals of any such species in such a way as to be likely:
- to impair their ability:
 - to survive, to breed or reproduce, or to rear or nurture their young, or;
 - in the case of animals of a hibernating or migratory species, to hibernate or migrate, or;
- to significantly affect the local distribution or abundance of the species to which they belong.
- Deliberately take or destroy the eggs of such an animal, or;
- Damage or destroy a breeding site or resting place of such an animal.

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

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

Legislation for amphibians (other than great crested newt)

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

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

Legislation relating to breeding birds

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

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

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

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

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

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

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

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

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

Legislation relating to badger

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

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

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

Legislation relating to invasive plant species

Several non-native invasive plant species such as Himalayan balsam (*Impatiens glandulifera*), giant hogweed (*Heracleum mantegazzianum*), Japanese rose (*Rosa rugosa*), variegated yellow archangel (*Lamium galeobdolon*), rhododendron (*Rhododendron ponticum*) and Japanese knotweed (*Reynoutria japonica*) are listed under Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended), which makes it an offence to ‘...plant or otherwise cause the species to grow in the wild’. This includes spreading or transferring contaminated soil from one area to another.

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

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

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

If knotweed stands are to be treated with herbicides, The Control of Pesticides Regulations (1986) applies. These regulations require any person who uses a pesticide to take all reasonable precautions to

protect the health of human beings, creatures, and plants, safeguard the environment and in particular avoid the pollution of water. If pesticides are to be used in or near to a watercourse, the Environment Agency should be contacted, and approval must be sought (application to use herbicides in or near water).

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

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

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

Appendix 2 – Preliminary Roost Assessment

Building Reference	Description	Photograph	Category of Suitability
B1	Building 1 is a six-storey rectangular building present to the east of the site. This building was formed entirely of concrete blocks with large glass windows on the eastern and western aspects. The building was in good condition throughout externally, with all brickwork and windows well sealed and no defects visible. This building had a flat roof with one structure present on the roof, which was used to store plant and associated air conditioning equipment. This structure on the roof appeared to have been renovated recently, had a flat, felt roof with wooden cladding on the sides and a corrugated wall. No defects or other features were noted that would provide a suitable roosting feature for bats. The building was in use at the time of survey as an office and was therefore in a good state of repair internally.		Negligible
B2	Building 2 was a single storey rectangular building adjacent to the northern site boundary. This building had a flat roof and was well sealed on all aspects. This building was in active use as part of a health centre therefore it was not possible to fully inspect internally, however no loft space was present on the building which could provide potential roosting features; therefore, this did not provide a significant limitation to the building assessment.		Negligible

B3	Building 3 was a three-storey rectangular building of similar construction to Building 1 and Building 4. No defects were noted in the concrete and all windows appeared to be well sealed and did not offer any bat roost potential. The building was in active use as an office at the time of survey and was therefore in a good state of repair internally. One structure was present on the roof of this building, of similar construction to the roof structure on Building 1. This was also of good condition, with a flat roof and wooden cladding which did not offer suitable features to support a bat roost.	 	Negligible
B4	Building 4 was an 18-storey rectangular building present adjacent to Bridge Street, of similar construction to Building 1	Roof Structures:	Negligible

and Building 3. This building had glass windows present mostly on the north eastern and south western aspect and was formed entirely on concrete blocks. These were in good condition throughout externally, with all brickwork and windows well sealed and no defects visible. The building was in use at the time of survey as an office and was therefore in a good state of repair internally. Three structures were present on the roof of this building, which were used for general storage or as plant rooms. These structures had a flat roof and were in good condition on all aspects. These buildings did not have a loft cavity and were inspected internally, with no signs of use by bats or features that might support a bat roost observed.



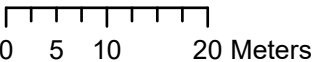
Building:

Building Reference	Description	Photograph	Category of Suitability
			

Appendix 3 – Habitat Map and Target Notes

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- Giant Hogweed
- Scattered Broad-leaved Tree
- Ephemerl/ Short Perennial
- Building
- Introduced Shrub
- Hardstanding
- Red Line Boundary



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Client:
Oval Real Estate

Project:
Albert Bridge House

Title:
Phase One Habitat Map

Issue:
01

Drawn: CL	Checked: JH	Approved: MB
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Project: UG1452	Scale @ A3: 1:750	Date: 08/04/2022
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Dwg No: UG_1452_ECO_HM_01	Revision: 02
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