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28th February 2020

Union – St. John's (T2) Ecology Report Validity

Dear Rachel,

This letter is to confirm that I consider the Ecological Survey and Assessment produced by ERAP Ltd in November 2016¹ (hereafter referred to as the '2016 report') is, in this instance, sufficient to inform a revised planning application at the site.

It is confirmed that the red line boundary of the Union – St. Johns (T2) site is the same as that of the 2016 report.

I completed the surveys at the site, and have subsequently completed further, updated surveys in at the area surrounding the site.

I do not think that the habitats within the site will have improved in terms of their nature conservation value, and I consider that the 2016 report remains an accurate assessment of the nature conservation value of the site.

I do not think that the habitats within the site will have improved in terms of their suitability for use by protected or notable species, and I consider that the 2016 report remains an accurate assessment of the likely presence or absence of protected or notable species.

I do not consider that updated surveys are required at the site to inform the application, and I consider the methods for the protection of wildlife and ecological enhancements proposed in the 2016 report remain appropriate.

Yours truly,



Brian Robinson B.Sc. (Hons) MCIEEM
Senior Ecologist

¹ Namely 2016-350 St Johns Riverside Tower 2, Manchester M3 4PU: Ecological Survey and Assessment (ERAP (Consultant Ecologists) Ltd, 2016)

St Johns Riverside Tower 2, Manchester, M3 4PU

ECOLOGICAL SURVEY AND ASSESSMENT

November 2016

[ERAP Ltd ref: 2016-350]

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CONTENTS

Summary	3
1.0 Introduction	4
2.0 Method of Survey.....	4
2.1 Desktop Study.....	4
2.2 Vegetation and Habitats.....	4
2.3 Animal Life	5
2.4 Survey Limitations.....	7
2.5 Evaluation Methodology	7
3.0 Survey Results	8
3.1 Desktop Study.....	8
3.2 Vegetation and Habitats.....	9
3.3 Animal Life	11
4.0 Evaluation and Assessment.....	12
4.1 Introduction and Description of Proposals.....	12
4.2 Designated Sites.....	12
4.3 Vegetation and Habitats.....	12
4.4 Protected Species and Other Wildlife.....	12
5.0 Recommendations and Ecological Enhancement	13
5.1 Protection of Existing Vegetation and Habitats	13
5.2 Invasive Species	13
5.3 Birds.....	13
5.4 Enhancement for Biodiversity.....	14
6.0 Conclusion	16
7.0 References	16
8.0 Appendices: Photograph and Figure	18

List of Tables

Table 2.1: Consideration of Suitability of Foraging and Commuting Habitat for Bats	6
Table 2.2: Important Habitat Characteristics for Reptiles.....	7
Table 5.1: Suitable Native Species for Tree and Shrub Planting	15
Table 8.1: Table of Photographs	18

List of Figures

Figure 8.1: Phase 1 Habitat Map.....	20
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Document Control

Survey Type:	Surveyors¹	Survey Date(s)
Phase 1 Habitat	Brian Robinson B.Sc. (Hons) MCIEEM	30 th July 2015
Reporting	Personnel	Date
Author	[Author] B.Sc. (Hons), MCIEEM Ecologist	23 rd November 2016
Signature(s)		
Checked by	Carol Flaxman B.Sc. (Hons), GradCIEEM	23 rd November 2016
Revised and issued by	Brian Robinson B.Sc. (Hons), MCIEEM Ecologist	23 rd November 2016
Report issued to	Manchester Quays Limited	
Copy Number	1 ²	

¹ Report Information

This report has been compiled using information gathered by ERAP Ltd. to inform a previous planning application at the site which covered both the site described in this report and further areas to the east.

The survey information relating to the previous application was presented at *2015-179 Riverside and Village, Phase 2: Ecological Survey and Assessment* (ERAP Ltd, 2015).

In order that the current planning application can be assessed with clarity, this report has been composed, removing all references to the areas previously surveyed and described in the 2015 report which no longer form part of the site boundary.

SUMMARY

Introduction and Scope

- i. This Ecological Appraisal presents the ecological, biodiversity and nature conservation status of the site at which St. John's Riverside Tower 2 is proposed, in Manchester, M3 4PU. The proposals are to develop the site to a 36 storey residential building with retail uses at the ground floor.
- ii. The appraisal presents the results of a desktop study and extended Phase 1 Habitat Survey carried out in July 2015. The scope of survey undertaken is appropriate to identify potential ecological constraints, the remit of mitigation required and opportunities for biodiversity associated with the development proposals.
- iii. The site comprises hard standing, with localised areas of landscape planting and mature and semi-mature trees. Scrub and tall-herb vegetation is present at the south-eastern bank of the River Irwell, which lies adjacent to the site boundary.

Results of Survey and Assessment

- iv. The proposals will have no adverse effect on statutory or non-statutory designated sites for nature conservation.
- v. No Priority Habitats are present within the site. None of the habitats within the site are species-rich or indicative or semi-natural habitat. The trees within the site are of local value as they provide structural diversity and are suitable for use by nesting birds. The canalised section of the River Irwell which lies adjacent to the site is suitable for use as a wildlife corridor.
- vi. Giant Hogweed and Indian Balsam, invasive species listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) are present within or adjacent to the site. Guidance on the control and management of these species is described in the report (**Section 5.2**).
- vii. The trees and shrubs within the site are suitable for use by nesting birds. No other protected species have been detected within the site, and the presence of further protected species is reasonably discounted.

Recommendations

- viii. The recommendations in **Section 5.0** address all the mandatory measures and ecological recommendations to be applied to ensure compliance with wildlife legislation, the National Planning Policy Framework (NPPF) and best practice.
- ix. The proposals will secure an opportunity to implement beneficial measures such as habitat creation that will safeguard habitats for wildlife such as birds and bats, with the aim of providing a net gain in biodiversity in accordance with the principles of the NPPF.

Conclusion

- x. The proposals are feasible and acceptable in accordance with ecological considerations and relevant planning policy. Redevelopment at the site will provide an opportunity to secure ecological enhancement for wildlife associated with urban habitats.

1.0 INTRODUCTION

Background and Rationale

- 1.1 This Ecological Appraisal presents the ecological, biodiversity and nature conservation status of the site at which St. John's Riverside Tower 2 is proposed, in Manchester, M3 4PU. The proposals are to develop the site to a 36 storey residential building with retail uses at the ground floor. The Ordnance Survey (OS) grid reference at the centre of the site is SJ 8295 9800.

Scope of Works

- 1.2 The scope of ecological surveys undertaken in July 2015 comprised:
- Desktop study for known ecological information at the site and the local area;
 - An Extended Phase 1 Habitat Survey and assessment;
 - Assessment of the ecological value of the habitats within the site with the use of the National Vegetation Classification (NVC) and the Ratcliffe criteria, as presented in *A Nature Conservation Review* (Ratcliffe, 1977);
 - Survey and assessment of all habitats for statutorily protected species and other wildlife including badger (*Meles meles*), barn owl (*Tyto alba*), great crested newt (*Triturus cristatus*), water vole (*Arvicola amphibius*), bird species, invertebrates and reptiles;
 - Licensed bat survey of the trees;
 - The identification of any potential ecological constraints on the proposals and the specification of the scope of mitigation and ecological enhancement required in accordance with wildlife legislation, planning policy guidance and other relevant guidance; and
 - The identification of any further surveys or precautionary actions that may be required prior to the commencement of any development activities.

2.0 METHOD OF SURVEY

2.1 Desktop Study

- 2.1.1 The following sources of information and ecological records were consulted:
- MAGiC: A web-based interactive map which brings together geographic information on key environmental schemes and designations, including details of statutory nature conservation sites;
 - Greater Manchester Local Record Centre (GMLRC); and
 - Greater Manchester Biodiversity Action Plan (BAP).

2.2 Vegetation and Habitats

- 2.2.1 An Extended Phase 1 Habitat Survey of the site was carried out by Brian Robinson on the 30th July 2015. The weather was dry and sunny, calm (Beaufort Scale 1) and 15°C at midday. The conditions and time of year were favourable for the ecological survey.
- 2.2.2 A vegetation and habitat map was produced for the site and the immediate surrounding area at a scale of 1:750 (refer to **Figure 8.1**). The mapping is based on the Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC, 2010) with minor adjustments to illustrate and examine the habitats with greater precision.
- 2.2.3 The plant species within the site boundary were determined with estimates of the distribution, ground cover, abundance and constancy of individual species. The estimation of abundance was based on the DAFOR

system, where D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare, this being a widely used and accepted system employed by ecological surveyors. The terms L = Locally and V = Very were additionally used to describe the plant species distributions with greater precision.

- 2.2.4 Stands of vegetation and habitats were described and evaluated using the National Vegetation Classification (NVC). The NVC provides a systematic and comprehensive analysis of British vegetation and is a reliable framework for nature conservation and land-use planning.
- 2.2.5 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and species which are indicators of important and uncommon plant communities. Plant nomenclature follows *New Flora of the British Isles 3rd Edition* (Stace, 2010).
- 2.2.6 Searches were carried out for the presence of invasive species, including those listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), including Japanese Knotweed (*Fallopia japonica*), Indian Balsam (*Impatiens glandulifera*) and Giant Hogweed (*Heracleum mantegazzianum*).

2.3 Animal Life

Badger

- 2.3.1 A thorough search for badger activity was carried out. The survey area covered the site (as annotated on **Figure 8.1**) and extended to accessible land within a radius of 50 metres from the site boundary. Private land were excluded from the survey.
- 2.3.2 Surveys were conducted in accordance with guidance presented with *Badgers and Development* (Natural England, 2007) and *Badgers: surveys and mitigation for development projects* (Natural England, 2015).
- 2.3.3 The following signs of badger activity were searched for:
 - a. Sett entrances, e.g. entrances that are normally 25 to 35cm in diameter and shaped like a 'D' on its side;
 - b. Large spoil heaps outside sett entrances;
 - c. Bedding outside sett entrances;
 - d. Badger footprints;
 - e. Badger paths;
 - f. Latrines;
 - g. Badger hairs on fences or bushes;
 - h. Scratching posts; and
 - i. Signs of digging for food.
- 2.3.4 Habitats within and surrounding the site were assessed in terms of their suitability for use by foraging and sheltering badger in accordance with their known habitat preferences as detailed in current guidance and *Badger* (Roper, 2010).

Bat Species

Daylight Survey

Survey Personnel

- 2.3.5 The trees were assessed for their suitability to support roosting bats by Mr. Brian Robinson. Mr. Robinson holds a Natural England Class Survey Licence WML CL18 (Bat Survey Level 2), Registration Number 2015-13161-CLS-CLS.

- 2.3.6 The surveyor's qualifications and experience meet the criteria as defined in the *Technical Guidance Series Competencies for Species Survey: Bats* (CIEEM, 2013).
- 2.3.7 The surveys were carried out in accordance with standard methodology including the *Bat Mitigation Guidelines* (Mitchell-Jones, 2004), the *Bat Workers' Manual 3rd Edition* (Mitchell-Jones & Mcleish, 2004) and *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)* (Collins, J. (ed), 2016).
- 2.3.8 A preliminary assessment of the trees within the site was conducted to assess their suitability for use by roosting bats, and to inform whether further surveys or precautionary measures were required.
- 2.3.9 Trees were assessed from the ground using binoculars and a high-powered torch. Each tree was searched for the presence of any of the following features:

Woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed platey bark, knot holes, man-made holes, tear-outs, cankers in which cavities have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks with included bark, gaps between overlapping stems or branches, partially detached Ivy (Hedera helix) with stem diameters in excess of 50mm and bat, bird or dormouse (Muscardinus avellanarius) boxes.

- 2.3.10 Terms used to describe any features present follow (where possible) those outlined and described in *Bat Tree Habitat Key, 2nd Edition* (Andrews, H (ed), 2013).

Habitat Assessment for Commuting / Foraging Bats

- 2.3.11 Habitats within and adjacent to the site were assessed for their value and suitability for commuting and foraging bats in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*, (Collins, J. (ed), 2016). Reference has been made using the following categories and descriptions / examples, presented at **Table 2.1**, below

Table 2.1: Consideration of Suitability of Foraging and Commuting Habitat for Bats

Suitability	Commuting Habitat	Foraging Habitat
Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.	
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated i.e. not very well connected to the surrounding landscape by other habitat.	Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree or patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.	Habitat that is linked to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape and is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. Habitats close to and connected to known roosts.	High-quality habitat that is well-connected to the wider landscape and is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Habitats close to and connected to known roosts.

Bird Species

- 2.3.12 Bird species observed and heard during the survey were recorded.
- 2.3.13 Habitats throughout the site and in the immediate surrounding area were assessed for their value to roosting, feeding and nesting birds, as indicated by the amount of shelter, feeding value, woody vegetation structure and species diversity of tree and shrub species in the site.

- 2.3.14 All visible and audible birds were recorded during the site survey following the standard recording methodology and codes of the *British Trust for Ornithology (BTO) Common Birds Census* (Marchant, 1983).

Great Crested Newt

- 2.3.15 In accordance with current Natural England guidance (English Nature, 2001) all ponds within an unobstructed 500 metres of a site should be considered for their suitability to support breeding great crested newts. The potential of the proposed development to impact upon any great crested newt population(s) whose breeding ponds are within 500 metres must be considered.
- 2.3.16 There are no ponds within an unobstructed 500 metres radius from the site boundary; no further surveys for amphibian species are necessary.

Reptile Species

- 2.3.17 The site and its surroundings were assessed in terms of their suitability for use by reptile species using the important characteristics for reptiles outlined in the draft document '*Reptile Mitigation Guidelines*' (Natural England, 2011), and the *Reptile Habitat Management Handbook* (Edgar, et al., 2010). These habitat characteristics are outlined in **Table 2.2**, below.

Table 2.2: Important Habitat Characteristics for Reptiles

1. Location (in relation to species range)	7. Connectivity to nearby good quality habitat
2. Vegetation Structure	8. Prey abundance
3. Insolation	9. Refuge opportunity
4. Aspect	10. Hibernation habitat potential
5. Topography	11. Disturbance regime
6. Surface geology	12. Egg-laying site potential

Water Vole

- 2.3.18 The site lies adjacent to the River Irwell at its western end. The stretch of the River Irwell which lies adjacent to the site was assessed in terms of its suitability for use by water vole and other riparian species, such as otter (*Lutra lutra*).

2.4 Survey Limitations

- 2.4.1 Direct access could not be gained to the River Irwell to search for any field signs of water vole or otter, however it is considered that a reliable assessment of the likely presence or absence of both species was possible from the accessible areas of the River.
- 2.4.2 Otherwise the whole site was accessible, and the surveys were conducted under favourable conditions and at a suitable time of year. No significant survey limitations were experienced.

2.5 Evaluation Methodology

- 2.5.1 The habitats, vegetation and animal life were evaluated with reference to standard nature conservation criteria as described in *A Nature Conservation Review* (Ratcliffe, 1977) and *Guidelines for the Selection of Biological SSSIs* (Bainbridge, et al., 2013). These are size (extent), diversity, naturalness, rarity, fragility, typicality, recorded history, position in an ecological or geographical unit, potential value and intrinsic appeal.
- 2.5.2 Habitats have been assessed to determine whether they meet those described in *UK Biodiversity Action Plan: Priority Habitat Descriptions* (Maddock, A (ed), 2008); these lists are used to help draw up the statutory lists of Priority Habitats, as required under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006*. Where suitable, the ecological value of the habitats present have been assessed using

the terms outlined in *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2nd Edition* (CIEEM, 2016).

- 2.5.3 Government advice on wildlife, as set out in the *National Planning Policy Framework* (Great Britain Department for Communities and Local Government, 2012) and associated government circulars has been taken into consideration. Legislation relating to protected species, such as those listed under Schedule 1 and Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended) and *The Conservation of Habitats and Species Regulations 2010* (as amended), is referenced where applicable, and any impacts to protected species are evaluated in accordance with current guidance.
- 2.5.4 The presence of any Priority Species, as listed under Section 41 of the *NERC Act 2006* is noted, and habitats are assessed in terms of their suitability and value for these species. The presence of habitats and/or species listed by the Greater Manchester Biodiversity Action Plans has been taken into account in the evaluation of the site.

3.0 SURVEY RESULTS

3.1 Desktop Study

Site Designations

- 3.1.1 The site does not hold any statutory or non-statutory designation for nature conservation.
- 3.1.2 The site lies within the Site of Special Scientific Interest (SSSI) impact risk zone for the Rochdale Canal Special Area of Conservation (SAC) and SSSI.
- 3.1.3 The categories of development for which further assessment would be required in respect of the impact zone are concerned with air pollution (such as pig and poultry units) and combustion processes; the proposed development will have no impact on the SSSI.
- 3.1.4 The site lies within two kilometres of three Sites of Biological Importance (SBIs). These locally designated sites comprise the River Irwell SBI, 880 metres to the north-west, and the Rochdale Canal, Stott's Lane – Ducie Street Basin SBI, and Ashton Canal (West) SBI, both of which lie 1.5 kilometres to the east of the site.
- 3.1.5 The presence of locally designated sites within two kilometres of the site is considered further at **Section 4.1**, below.

Protected and Notable species

- 3.1.6 No records of protected or notable species are reported for the site. Records of protected and notable species are reported for the wider area, and are summarised below. The presence of protected and notable species within the wider area is considered throughout this report.

Amphibians

- 3.1.7 Common toad (*Bufo bufo*), a Priority Species, is reported for the wider area within two kilometres of the site.

Birds

Protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended)

- 3.1.8 45 records of kingfisher (*Alcedo atthis*), six records of black redstart (*Phoenicurus ochruros*), three records of peregrine (*Falco peregrinus*) and one record of little ringed plover (*Charadrius dubius*) are reported for the two kilometres area surrounding the site.

Priority Species

- 3.1.9 Records are held for bullfinch, dunnock (*Prunella modularis*), house sparrow (*Passer domesticus*), lapwing (*Vanellus vanellus*), lesser redpoll (*Carduelis cabaret*), skylark (*Alauda arvensis*), song thrush (*Turdus philomelos*) and starling (*Sturnus vulgaris*) within two kilometres of the site.

Terrestrial Mammals

Badger

- 3.1.10 All Badgers are protected under the *Protection of Badgers Act 1992*. Two records of badger are reported for the wider area, with one record of a sett 1.5 kilometres to the north-east, and one record of other signs 1.2 kilometres to the south-east.

Bats

- 3.1.11 All bat species are European Protected Species under the *Conservation of Habitats and Species Regulations 2010* (as amended), and are protected under Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended). Soprano pipistrelle (*Pipistrellus pygmaeus*) is additionally a Priority Species.

- 3.1.12 With two kilometres of the site, GMLRC hold records for:

- a. Five records of bat activity where the species of bat has not been recorded, the closest being 0.9 kilometres to the north-west;
- b. One record of brown long-eared bat (*Plecotus auritus*) activity, 0.7 kilometres to the north-east;
- c. One Daubenton's bat (*Myotis daubentonii*) roost, 0.2 kilometres to the south-west of the site, and two further records of bat activity.
- d. Seven pipistrelle species (*Pipistrellus* sp.) roosts, the closest being one kilometre north, and 27 records of pipistrelle species activity;
- e. Nine common pipistrelle (*Pipistrellus pipistrellus*) roosts, the closest being 0.8 kilometres to the north-east, and 32 records of common pipistrelle activity; and,
- f. One record of a soprano pipistrelle roost, 1.5 kilometres east, and one record of activity, 1.6 kilometres north-west.

Priority Species

- 3.1.13 Three records of hedgehog (*Erinaceus europaeus*), a Priority Species, are reported, the closest being 1.2 kilometres to the south.

Invertebrates

- 3.1.14 Buff ermine (*Spilosoma lutea*), cinnabar (*Tyria jacobaeae*), mottled rustic (*Caradrina morpheus*), shoulder-striped wainscot (*Leucania comma*) and small square-spot (*Diarsia rubi*), all Priority Species of moth, are reported within two kilometres of the site.

Flowering Plants

- 3.1.15 Grass-wrack Pondweed (*Potamogeton compressus*) is reported 0.8 kilometres to the south-east of the site.

3.2 Vegetation and Habitats

General Description

- 3.2.1 The approximately 0.6 hectare site is located in a urban area of Manchester and comprises hard standing with localised areas of colonising vegetation, and localised areas of landscape planting.

3.2.2 The northern site boundary is defined by an area of landscape planting associated with the Marriot Hotel and Quay street, beyond which lies further roads and buildings. The eastern site boundary is defined by Water Street. The southern site boundary lies within a hard standing car park area, beyond which lies further areas of hard standing (utilised as car parking). The River Irwell lies adjacent to the western site boundary.

3.2.3 For all habitat descriptions refer to the Phase 1 Habitat Plan appended at **Figure 8.1**. Photographs are appended at **Table 8.1**.

Hard Standing

3.2.4 The areas of hard standing within the site comprise asphalt roads and pavements, an asphalt car parks with colonising vegetation at their edges, and a courtyard within the Granada Studios site with vegetation colonising the gaps and crevices between the paving slabs and cobbles.

Asphalt Roads and Pavements

3.2.5 The roads and pavements within the site are largely devoid of vegetation (**Photos 1 and 2**) with occasional and very locally frequent Annual Meadow-grass (*Poa annua*), Procumbent Pearlwort (*Sagina procumbens*) and Broad-leaved Willowherb (*Epilobium montanum*). None of the vegetation attains a percentage cover of 1% or greater.

3.2.6 The vegetation is not indicative of any NVC community.

Car Park

3.2.7 The car park is largely devoid of vegetation but supports very locally frequent colonising vegetation at its boundaries and at the interfaces between the mortared brick walls and asphalt (**Photo 3**). The vegetation is characterised by locally frequent Butterfly-bush (*Buddleja davidii*), Broad-leaved Willowherb, Procumbent Pearlwort, Annual Meadow-grass, Canadian Fleabane (*Conyza canadensis*), Common Ragwort (*Senecio jacobaea*), Weld (*Reseda luteola*) and Creeping Bent (*Agrostis stolonifera*). Very locally frequent Giant Hogweed (*Heracleum mantegazzianum*) is present at the south-western end of the site. None of the vegetation attains a percentage cover of 1% or greater.

3.2.8 The vegetation is not indicative of any NVC community.

Tree Lines and Landscape Planting

3.2.9 The site supports tree lines with associated landscape planting at the western and eastern edges of Water Street and at the northern site boundary.

3.2.10 The planted and semi-mature trees at the western end of Water Street comprise four semi-mature London Plane trees (*Platanus x acerifolia*), which have an understorey of exotic species (**Photo 4**).

Shrubs and Scrub Colonising Western Site Boundary Adjacent to the River Irwell

3.2.11 The scrub, tall-herb and unmanaged grassland colonising the western site boundary, adjacent to the River Irwell (**Photos 5 and 6**) is characterised by constant, frequent and locally abundant Silver Birch (*Betula pendula*), Goat Willow (*Salix caprea*), Rosebay Willowherb (*Chamerion angustifolium*), frequent and locally abundant Common Nettle (*Urtica dioica*), Bramble, Butterfly-bush, *Cotoneaster* species, and locally frequent Ash (*Fraxinus excelsior*), Rowan (*Sorbus aucuparia*), Red Valerian (*Centranthus ruber*), Herb-robert (*Geranium robertianum*), Creeping Bent, Dandelion, Giant Hogweed and Elder (*Sambucus nigra*).

3.2.12 The developing scrub and tall-herb vegetation is not characteristic of any NVC community.

Ornamental Shrubs at the Canal Basin

- 3.2.13 Refer to **Photos 7 and 8**. Two sections of ornamental shrubs and tree planting are located at either side of the canal basin at the northern end of the site. Both areas are characterised by dominant ornamental non-native species. The area does not support any vegetation indicative of an NVC plant community.

River Irwell

- 3.2.14 Refer to **Photo 9**. The section of the River Irwell which lies adjacent to the site's western end supports canalised banks of mortared stone set at 90°. No aquatic or emergent vegetation is associated with the Irwell at this point, which is approximately 30 metres wide and maintains a westerly flow.
- 3.2.15 Vegetation colonising the eastern bank of the Irwell and adjacent to the western site boundary is described above. Constant and abundant unmanaged scrub and tall herb vegetation is present at the far bank.

Invasive Species

- 3.2.16 As illustrated on **Figure 8.1** occasional stands of Giant Hogweed shrubs were detected at the western end of the site. This species is listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) and, as such, it is an offence to spread or cause its spread in the wild. A small area of Indian Balsam is present to the north of the site, associated with the walled bank of the River Irwell. Further guidance is described in **Section 5.2**.

3.3 Animal Life

Badger

- 3.3.1 The highly urbanised habitats within and surrounding the site are unsuitable for either foraging or sheltering Badger. No signs of Badger were detected within the site. The presence of Badger is reasonably discounted.

Bat species

- 3.3.2 No trees support any features suitable for use by roosting bats; the presence of roosting bats is reasonably discounted at the site.

Foraging and Commuting Bats

- 3.3.3 The River Irwell, which lies adjacent to the site's western boundary is favourable for use by foraging and commuting bats. The remainder of the site, being composed of well-lit streets with only localised areas of vegetation and large areas of hard standing is of poor suitability for use by foraging or commuting bats. It is likely that low numbers of Common Pipistrelle may use the site or parts of the site for foraging, however it is unlikely that the site forms core or important foraging habitat for any bat species.

Bird species

- 3.3.4 Birds detected in the site comprised magpie (*Pica pica*), wood pigeon (*Columba palumbus*) and house sparrow (a Priority Species). Mute swan (*Cygnus olor*) were recorded on the River Irwell.
- 3.3.5 The localised trees and shrubs within the site are suitable for use by foraging and nesting birds.

Reptiles

- 3.3.6 The managed and heavily disturbed habitats within the site and adjacent to the site in each direction are wholly unsuitable for use by reptile species. The presence of reptiles is reasonably discounted.

Water Vole and Other Riparian Fauna

- 3.3.7 The canalised banks of the River Irwell are unsuitable for use by burrowing water vole, and there is no aquatic or emergence vegetation present which could be used by foraging or sheltering water vole. No records of water vole (or any other protected species associated with riparian habitats) are reported for the wider area.
- 3.3.8 The presence of water vole and all other protected riparian species is reasonably discounted.

4.0 EVALUATION AND ASSESSMENT

4.1 Introduction and Description of Proposals

- 4.1.1 It is proposed to redevelop the site to a 36 storey residential building with retail uses at the ground floor, refer to *St. John's Masterplan Riverside: Tower 2 Proposed Site Plan 6510-T2-P-B500-P-00-0001* (Denton Corker Marshall, n.d.).
- 4.1.2 **Section 4.2** provides an assessment of the proposals are considered on the designated sites in the wider area. The ecological value of habitats within the site are evaluated at **Section 4.3**, and the presence of protected and notable species is considered at **Section 4.4**.

4.2 Designated Sites

- 4.2.1 The site is relatively distant from each of the SBIs located in the wider area (at least 880 metres), and does not support any habitats which could contribute to any of the designated sites. Further, the site lies across existing developments and roads from all three of the SBIs. The proposed development will have no impact on any of the designated sites in the wider area.

4.3 Vegetation and Habitats

- 4.3.1 There are no UK BAP Priority Habitats within the site, and none of the habitats within the site is species-rich or indicative of a semi-natural habitat. The mature trees within the site are of local value as they provide structural diversity and are suitable for use by nesting birds; otherwise, the site is of low ecological value.
- 4.3.2 The River Irwell is suitable for use as a wildlife corridor; measures for the protection of the River during the proposed development, and for the protection of the River's potential to act as a wildlife corridor are presented at **Section 5.0** of this Report. These measures will be employed at the Canal Basin at the northern end of the site, which will remain unaffected by the proposed development.
- 4.3.3 The presence of Giant Hogweed, an invasive species listed under Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) is considered at **Section 5.2**.

4.4 Protected Species and Other Wildlife

- 4.4.1 The trees, shrubs and landscape planting are suitable for use by nesting birds. All wild birds are protected whilst they are nesting under the *Wildlife and Countryside Act 1981* (as amended). Measures for the protection of nesting birds are presented at **Section 5.3**, below.
- 4.4.2 Otherwise, the presence of protected species at the site is reasonably discounted.
- 4.4.3 The proposals present an opportunity to enhance the wildlife potential of the site for foraging and commuting bats, Priority Species of bird associated with the habitats present within the site and for hedgehog (a Priority Species) by the planting of native species of trees and shrubs and by incorporating bat boxes and bird boxes into the design of the site.

4.4.4 The recommendations in **Section 5.0** aim to ensure that the development is implemented in accordance with all wildlife legislation, Natural England guidance, the principles of the National Planning Policy Framework (NPPF), local planning policy and best practice.

4.4.5 Where possible, opportunities to enhance the ecological interest and habitat connectivity and seek biodiversity gain through appropriate landscape planting and habitat creation have been identified and recommended in **Section 5.0** (in accordance with the principles of the NPPF and associated documents).

5.0 RECOMMENDATIONS AND ECOLOGICAL ENHANCEMENT

5.1 Protection of Existing Vegetation and Habitats

Protection of Any Retained Trees

5.1.1 During the construction phase, temporary protective demarcation fencing will be used to protect any trees and shrubs that are to be retained. The fencing must extend outside the canopy of the retained trees and must remain in position until all plots have been developed to ensure protection is provided throughout the construction phase.

5.1.2 The fencing will be in accordance with BS5837:2012 *Trees in Relation to Design, Demolition and Construction: Recommendations*.

Protection of River Irwell

5.1.3 The section of the River Irwell running adjacent to the site should be protected during the construction and operational phase through implementation of best practice. Mitigation measures will be discussed and agreed with the Environment Agency. In particular, the following Pollution Prevention Guidelines (PPG) will be adhered to;

- a. PPG1: General Guide to the Prevention of Pollution
- b. PPG5: Works in, Near or Liable to Affect Watercourses
- c. PPG6: Working at Demolition and Construction Sites
- d. PPG7: Refuelling Facilities.

Consideration of Lighting

5.1.4 It is imperative that no excessive lighting shines directly over the River Irwell as a consequence of the proposed development, as an unsympathetic lighting scheme would deter foraging and commuting bats and disturb or deter other commuting wildlife. Lighting within the site should be screened and directional.

5.2 Invasive Species

5.2.1 It is recommended that a specialist contractor is employed and an Invasive Species Management Plan is devised for the control and eradication of Giant Hogweed and Indian Balsam at the site and its immediate surroundings.

5.3 Birds

Protection

5.3.1 All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are breeding. It is mandatory that any trees or shrubs which are to be removed as part of the proposals are only removed outside the bird breeding season. The bird breeding season typically extends between March to August inclusive.

5.3.2 If any habitats are scheduled for removal in the bird breeding season it is advised that advice from an Ecologist is sought. It may be necessary to carry out a walkover survey to demonstrate satisfactorily that no breeding birds, active nests, eggs or fledglings are present in the area to be cleared.

5.3.3 If breeding birds are detected the Ecologist will issue guidance in relation to the protection of the nesting birds in conjunction with the scheduled works. This may involve cordoning off an area of the site until the young birds have fledged.

5.4 Enhancement for Biodiversity

Enhancing Habitats for Nesting Birds

House Sparrow

5.4.1 House sparrows are associated with suburban areas. Monitoring suggests a severe decline in the UK house sparrow population, estimated as dropping by 71 per cent between 1977 and 2008 with substantial declines in both rural and urban populations (RSPB).

5.4.2 Consideration should be given to the installation of four house sparrow terrace nest boxes at the site. If the boxes are to be installed at the buildings, they must be sited to avoid areas such as directly above any windows or doors. RSPB advice states that boxes should ideally be sited facing north to east, to avoid exposure to direct sunlight, which may cause overheating of chicks in the nest. An example of a suitable house sparrow bird boxes are given below, in **Insert 1**:



Insert 1: House Sparrow Nesting Terrace

5.4.3 If it is not possible to install such boxes on the proposed building, the provision of alternative bird nesting opportunities should be investigated; it may be possible to install suitable boxes on any heavy standard trees proposed for the landscape planting. Such bird boxes are available from the NHBS (www.nhbs.com) or Wild Care Shop (www.wildcareshop.com). ERAP Ltd will advise on the siting of bird boxes.

Enhancing Habitats for Roosting Bats

5.4.4 Consideration should be given for the installation of two commercially available integral bat access panels or externally mounted bat boxes at the new development, all facing onto the River Irwell.

5.4.5 The bat access panels/boxes should be sited at least four metres from ground level. If installed on the proposed buildings, the boxes should not be positioned over windows or doorways where bat droppings may become a nuisance. If it is not possible to install the boxes on the proposed new buildings, the possibility of installing suitable boxes onto the bankside wall of the River Irwell should be investigated. Once the development layout has been finalised, an Ecologist should advise on appropriate positions for the bat access panels/boxes. Suitable access panels/boxes are available from NHBS Ecology (www.nhbs.com) or Wild Care Shop (www.wildcareshop.com) and are presented at **Insert 2**:



Insert 2: Examples of commercially available integral bat access panels (which may be finished with the external render proposed at the building) and a commercially available bat box suitable for externally mounted walls.¹

- 5.4.6 As required by the NPPF and other relevant planning documents, opportunities for the enhancement of biodiversity at the site have been explored with the overall objective of increasing the biodiversity value (i.e. the nature conservation interests at the site).
- 5.4.7 The implementation of the specifications/recommendations described below is of relevance at this site.
- 5.4.8 All recommendations are appropriate to the geographical area, the habitats in the wider area, the wildlife present in the local area (and likely to use the site post-construction) and take into consideration the end use of the site as a mixed development.

Landscape Planting within the Site

- 5.4.9 It is recommended that the landscape planting within the site is composed from native species and species known to be of value for the attraction of wildlife.
- 5.4.10 It is recommended that trees which support blossom and fruit which will attract insects are incorporated into the landscape planting. Suitable species are presented at **Table 5.1**.

Table 5.1: Suitable Native Species for Tree and Shrub Planting

Scientific Name	Common Name	Scientific Name	Common Name
<i>Acer campestre</i>	Field Maple	<i>Prunus spinosa</i>	Blackthorn
<i>Corylus avellana</i>	Hazel	<i>Rosa arvensis</i>	Field Rose
<i>Crataegus monogyna</i>	Hawthorn	<i>Rosa canina</i>	Dog-rose
<i>Ilex aquifolium</i>	Holly	<i>Sambucus nigra</i>	Elder
<i>Malus sylvestris</i>	Crab Apple	<i>Sorbus aucuparia</i>	Rowan
<i>Prunus avium</i>	Wild Cherry	<i>Ulmus glabra</i>	Wych Elm
<i>Prunus padus</i>	Bird Cherry	<i>Viburnum opulus</i>	Gelder Rose

- 5.4.11 The understorey and ground cover planting design should be prepared to optimise the attraction of invertebrates such as feeding bumblebees and butterflies. Where possible the use of native species should be maximised but where necessary non-native species known to be attractive to invertebrates should be used.
- 5.4.12 Planting schemes that include flowering species such as Lavender, Rosemary, Hebe, *Potentilla*, *Calluna*, *Ceanothus* and *Vinca* can maximise opportunities for feeding invertebrates.

¹ Namely an Ibstock Enclosed Bat Box, 1FR Schwegler Bat Tube, and 1WQ Schwegler Summer and Winter Bat Roost.

- 5.4.13 The installation of areas of wildflower grassland within the landscape planting would create favourable habitats for nectaring insects and foraging birds, and should be considered during the design of the landscape proposals.

6.0 CONCLUSION

- 6.1 This ecological appraisal has demonstrated that the development at the site is feasible and acceptable in accordance with ecological considerations and the National Planning Policy Framework.
- 6.2 Redevelopment at the site will provide an opportunity to secure ecological enhancement for fauna typically associated with urban areas such as breeding birds and foraging bats.

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8.0 APPENDICES: PHOTOGRAPH AND FIGURE

Table 8.1: Table of Photographs

	
Photo 1: Roads and pavements within the site	Photo 2: Roads and pavements within the site
	
Photo 3: Car park	Photo 4: Planted trees, western edge of Water Street
	
Photo 5: Vegetation colonising the western site boundary, adjacent to the River Irwell	Photo 6: Vegetation colonising the western site boundary, adjacent to the River Irwell



Photo 7: Ornamental shrubs and trees at the canal basin, adjacent to the northern site boundary



Photo 8: Ornamental shrubs and trees at the canal basin, adjacent to the northern site boundary



Photo 9: Section of the River Irwell which lies adjacent to the site

Figure 8.1: Phase 1 Habitat Map

