Charlton Riverside, Greenwich

Ecological Appraisal

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Executive Summary

i) **Introduction.** Aspect Ecology has been commissioned by Leopard Guernsey Anchor Propco Limited to undertake an ecological appraisal of the proposals relating to development of land at Anchor and Hope Lane, London, SE7 7TE.

ii) **Proposals.** The proposals are for redevelopment of the site to include 975 residential units provided within 9 buildings ranging in height from 2 to 28 storeys, including extensive private gardens and roof terraces, with associated commercial and ancillary facilities, extensive public realm improvements, landscaping and access infrastructure.

iii) **Survey.** The site was surveyed in September 2015 based on standard extended Phase 1 methodology. In addition, a general appraisal of faunal species was undertaken to record the potential presence of any protected, rare or notable species, with specific surveys conducted in respect of bats and Black Redstart.

iv) **Ecological Designations.** The site itself is not subject to any statutory or non-statutory ecological designations. The nearest statutory designation is Gilbert's Pit Site of Special Scientific Interest (SSSI) and Local Nature Reserve (LNR) located approximately 500m south east of the site. The nearest non-statutory designation is The River Thames Site of Metropolitan Importance for Nature Conservation (SMINC) located approximately 15m north of the site. All other ecological designations in the surrounding area, are well separated from the site by existing development and hard-standing, and are therefore unlikely to be adversely affected by the proposals.

v) **Habitats.** The site comprises buildings and hardstanding, which are considered to be of negligible ecological value, and the loss of these features as a result of the proposals is of negligible significance. A line of mature trees is present at the south western boundary of Plot B, which are assessed as being of moderate value at the local level, and are retained under the proposals. Japanese Knotweed is present within the site, with recommendations for its control provided as part of this assessment.

vi) **Protected Species.** The site offers limited opportunities for protected species and no evidence of any such species was recorded during the survey work. However, it is likely that common species of bird could occasionally nest within suitable habitat at the site and could therefore potentially be adversely affected by the proposals. Appropriate mitigation measures, centred on the careful timing of works, will therefore be implemented to safeguard nesting birds during relevant site clearance works. Long-term nesting opportunities will be maintained, if not enhanced, under the proposals through the provision of green roofs, landscape planting and provision of nest boxes.

vii) **Enhancements.** The proposals present the opportunity to secure a range of benefits for biodiversity, including green roofs, additional native tree planting, new roosting opportunities for bats, and more diverse nesting habitats for birds.

viii) **Summary.** The proposals have sought to minimise impacts and subject to the implementation of appropriate avoidance, mitigation and compensation measures, it is considered unlikely that the proposals will result in significant harm to biodiversity. On the contrary, the opportunity exists to provide a considerable range of benefits for biodiversity as part of the proposals.

1 Introduction

1.1 Background & Proposals

1.1.1 Aspect Ecology has been commissioned by Leopard Guernsey Anchor Propco Limited to undertake an ecological appraisal of the proposals relating to development of land at Anchor and Hope Lane, London, SE7 7TE, centred at Ordnance Survey National Grid Reference: 541110E 178940N (see Plan 4438/ECO1).

1.1.2 The proposals are for redevelopment of the site to include 975 residential units provided within 9 buildings ranging in height from 2 to 28 storeys, including extensive private gardens and roof terraces, with associated commercial and ancillary facilities, extensive public realm improvements, landscaping and access infrastructure.

1.2 Site Overview

1.2.1 The site is located within the Royal Borough of Greenwich in south east London, within an existing residential and industrial context. The site is bound to the north by existing industrial warehouse buildings, beyond which lies The River Thames, whilst existing residential development and Anchor and Hope Lane bounds the site to the west. To the east and south lies existing industrial and commercial warehouse style industrial development.

1.2.2 The site itself is an industrial trading estate, comprising predominantly warehouse style buildings, surrounded by hardstanding, with minimal ornamental landscaping. At the south western site boundary, a line of trees is present in between the site and Anchor and Hope Lane.

1.3 Purpose of the Report

1.3.1 This report documents the methods and findings of the baseline ecology surveys and desktop study carried out in order to establish the existing ecological interest of the site, and subsequently provides an appraisal of the likely ecological effects of the proposals. The importance of the habitats and species present is evaluated. Where necessary, avoidance, mitigation and compensation measures are recommended so as to safeguard any significant existing ecological interest within the site and where appropriate, opportunities for ecological enhancement are proposed with reference to national conservation priorities and local Biodiversity Action Plans (BAPs).

2 Methodology

2.1 Desktop Study

2.1.1 In order to compile background information on the site and its immediate surroundings, Greenspace Information for Greater London (GiGL) was contacted, with data requested on the basis of a search radius of 2km for designations and species.

2.1.2 Information on statutory designations was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC) database, which utilises data provided by Natural England, with an extended search radius (15km). This information is reproduced where appropriate on Plan 4438/ECO2.

2.1.3 In addition, the Woodland Trust database was searched for any records of veteran trees within or adjacent to the site. A search of the Open Mosaic Habitat Inventory database was also conducted to identify any records of such habitats within or adjacent to the site. The London Bird Report was also consulted.

2.2 Habitat Survey

2.2.1 The site was surveyed in September 2015 by Jonathan Byrd (MCIEEM), a suitably qualified ecologist, during daylight hours, in order to ascertain the general ecological value of the land contained within the boundaries of the site and to identify the main habitats and ecological features present.

2.2.2 The site was surveyed based on standard Phase 1 Habitat Survey methodology[1], whereby the habitat types present are identified and mapped, together with an assessment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified can then be examined in more detail through Phase 2 surveys. This method was extended, in line with the Guidelines for Preliminary Ecological Appraisal[2] to record details on the actual or potential presence of any notable or protected species or habitats.

2.2.3 Using the above method, the site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified. The nomenclature used for plant species is based on the Botanical Society for the British Isles (BSBI) Checklist.

2.3 Faunal Surveys

2.3.1 General faunal activity, such as mammals or birds observed visually or by call during the course of the surveys was recorded. Specific attention was also paid to the potential presence of any protected, rare or notable species, and specific consideration was given to bats and Black Redstart, as described below.

1 Joint Nature Conservation Committee (2010) *'Handbook for Phase 1 habitat survey: A technique for environmental audit.'*

2 Chartered Institute for Ecology and Environmental Management (CIEEM) (2013) '*Guidelines for Preliminary Ecological Appraisal.*'

Bats[3]

Visual Inspection Surveys

2.3.2 **Buildings.** Buildings within the site were subject to specific internal and external inspection surveys using ladders, torches and binoculars where necessary, in September 2015 by a licensed bat ecologist.

2.3.3 During the external inspections, particular attention was given to any potential roost features or access points, such as broken or lifted roof tiles, lifted lead flashing, soffit boxes, weatherboarding, hanging tiles, etc. and for any external signs of use by bats such as accumulations of bat droppings or staining. Binoculars were used to inspect any inaccessible areas more closely where appropriate.

2.3.4 **Trees**. Trees were assessed for their suitability to support roosting bats based on the presence of features such as holes, cracks, splits or loose bark. Suitability for roosting bats was rated based on relevant guidance[4] as:

- Negligible;
- Low;
- Moderate; or
- High.

2.3.5 Any potential roost features identified were also inspected for any signs indicating possible use by bats, e.g. staining, scratch marks, bat droppings, etc.

Black Redstart[5]

2.3.6 An appraisal of the on-site habitats was undertaken in September 2015, to assess the likelihood for this species to be present within the site. Black Redstarts are known to concentrate in areas of human activity, where sparsely vegetated waste ground is present, with tall, complex structures favoured. Tall, complex structures are not only offer singing posts for males of the species, but can also provide nesting opportunities. Proximity to large waterbodies is also a consideration for this species, as they can provide an abundance of invertebrates for Black Redstart to forage upon.

2.4 Survey Constraints/Limitations

2.4.1 All of the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent during different seasons. The Phase 1 habitat survey was undertaken outside the optimal seasonal period for botanical work, but the nature of the habitats within the site allowed for an adequate assessment of the intrinsic ecological interest of the site.

2.4.2 Attention was paid to the presence of any invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). However, the detectability of

[3] Surveys based on: English Nature (2004) '*Bat Mitigation Guidelines'* and Collins, J. (ed.) (2016) '*Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn).' Bat Conservation Trust

[4] Collins, J. (ed.) (2016) '*Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn).' Bat Conservation Trust

[5] Evans, K., 1997. A site action plan for black redstarts in the Deptford Creek Area, British Trust for Ornithology.

such species can vary due to a number of factors, e.g. time of year, site management, etc., and hence the absence of invasive species should not be assumed even if no such species were detected during the Phase 1 survey.

2.5 Principles of Ecological Evaluation

2.5.1 The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2010)[6]. In evaluating ecological features and resources the following key factors are taken into account:

2.5.2 *Geographic Frame of Reference*. The value of an ecological feature or resource is determined within a defined geographical context using the following frame of reference:

- International;
- National;
- Regional;
- County (or Metropolitan);
- District (or Unitary Authority, City or Borough);
- Local (or Parish);
- At the Site level only.

2.5.3 Within this frame of reference, certain sites may carry a statutory ecological designation, e.g. Special Area of Conservation (SAC) for internationally important sites or Site of Special Scientific Interest (SSSI) for sites of national importance.

2.5.4 Sites of more localised nature conservation importance do not receive statutory protection but may be designated by Local Planning Authorities or other bodies, e.g. Wildlife Trusts. Such non-statutory designations or 'Local Sites'[7] include Local Wildlife Sites (LWSs) and Sites of Nature Conservation Interest (SNCIs), for example.

2.5.5 *Biodiversity Value: Habitats*. In certain cases, the value of a habitat can be measured against known selection criteria, e.g. SAC selection criteria, 'Guidelines for the selection of biological SSSIs' and the Hedgerows Regulations 1997. However, for the majority of commonly encountered sites, the most relevant habitat evaluation will be at a more localised level and based on relevant factors such as antiquity, size, species-diversity, potential, naturalness, rarity, fragility and typicalness (Ratcliffe, 1977). The ability to restore or re-create the habitat is also an important consideration, for example in the case of ancient woodland.

2.5.6 Regard should also be given to habitats listed as priorities for conservation in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Habitats of Principal Importance' or 'Priority Habitats', as the likely effect of a development on such habitats is a potential material consideration within the planning process. Certain habitats may also be listed within regional or local Biodiversity Action Plans (BAPs), albeit the listing of a particular habitat under a BAP does not in itself imply any specific level of importance.

[6] Chartered Institute of Ecology and Environmental Management (CIEEM) (2006) '*Guidelines for Ecological Impact Assessment in the United Kingdom*'

[7] DEFRA (2006) '*Local Sites – Guidance on their Identification, Selection and Management*'

2.5.7 *Biodiversity Value: Species*. The assessment of the value of a species is based on factors including distribution, status, historical trends, population size and rarity. With respect to rarity, this can apply across the geographic frame of reference and particular regard is given to populations where the UK holds a large or significant proportion of the international population of a species.

2.5.8 Regard should also be given to species listed as priorities for conservation in accordance with Sections 41 and 42 of the NERC Act 2006, so called 'Species of Principal Importance' or 'Priority Species'. Certain species may also be listed within regional or local BAPs, albeit as with habitats the listing of a particular species under a BAP does not in itself imply any specific level of importance.

2.5.9 *Secondary or Supporting Value*. Some habitats or features that are of no intrinsic biodiversity value may nonetheless perform an ecological function, e.g. as a buffer. In addition, certain features of the landscape which by virtue of their linear or continuous nature (e.g. rivers) or their function as 'stepping stones' (e.g. small woods) may be of value for the migration, dispersal and genetic exchange of wild species.

2.6 National Policy Approach to Biodiversity in the Planning System

2.6.1 The National Planning Policy Framework (NPPF)[8] describes the Government's national policies on 'conserving and enhancing the natural environment' (Chapter 11). NPPF is accompanied by Planning Practice Guidance on 'Biodiversity, ecosystems and green infrastructure' (2014) and ODPM Circular 06/2005[9].

2.6.2 NPPF takes forward the Government's strategic objective to halt overall biodiversity loss[10], as shown at Paragraph 109, which states the planning system should contribute to and enhance the natural and local environment by:

'*minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*'

2.6.3 The approach to dealing with biodiversity in the context of planning applications is set out at Paragraph 118:

'When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- *if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;'*

2.6.4 The above approach encapsulates the 'mitigation hierarchy' described in British Standard BS 42020:2013[11], which involves the following step-wise process:

- **Avoidance** – avoiding adverse effects through good design;
- **Mitigation** – where it is unavoidable, mitigation measures should be employed to minimise adverse effects;

[8] Department for Communities and Local Government (2012) '*National Planning Policy Framework*'
[9] ODPM (2006) '*Circular 06/2005: Planning for Biodiversity and Geological Conservation – A Guide to Good Practice*'
[10] DEFRA (2011) '*Biodiversity 2020: A strategy for England's wildlife and ecosystem services*'
[11] British Standards Institution (2013) '*Biodiversity – Code of practice for planning and development*', BS 42020:2013

- **Compensation** – where residual effects remain after mitigation it may be necessary to provide compensation to offset any harm; and
- **Enhancement** – planning decisions often present the opportunity to deliver benefits for biodiversity, which can also be explored alongside the above measures to resolve potential adverse effects.

2.6.5 The measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development (BS 42020:2013, section 5.5).

2.7 Local Policy

2.7.1 The policies within the Royal Greenwich Local Plan[12]: Core Strategy reflect the objectives of the NPPF with regards to the retention, protection and enhancement of biodiversity within the borough. Policy OS4 specifically encourages the enhancement of biodiversity within areas that are deficient in accessible wildlife sites.

2.7.2 Green roofs and walls within new developments are encouraged by Policy E(f): Living Roofs and Walls.

2.7.3 There is a site specific Policy, EA2 Charlton Riverside, is present although no specific ecological features or recommendations are set out.

12 Royal Borough of Greenwich Council (2014) '*Royal Greenwich Local Plan: Core Strategies with Detailed Policies*'

3 Ecological Designations

3.1 Statutory Designations

Description

3.1.1 The statutory designations of ecological importance that occur within the local area are shown on Plan 4438/ECO2. The nearest statutory designation is Gilbert's Pit Site of Special Scientific Interest (SSSI) located approximately 500m to the south east of the site. Gilbert's Pit SSSI is designated on the basis of the geological interest it supports. The next nearest statutory designation is Maryon Wilson Park & Gilbert's Pit Local Nature Reserve (LNR) located approximately 820m to the south east of the site. Primarily designated for its geological interest, this LNR also supports a mix of acid grassland, and secondary woodland.

The site falls within the nationally designated Site of Special Scientific Interest "risk zone" for Epping Forest SSSI, which is also internationally designated as a Special Area of Conservation (SAC). The SSSI lies approximately 7.5km from the site. At this distance, the "risk zone" primarily relates to infrastructure developments and air quality impacts, rather than residential or commercial development.

Evaluation

3.1.2 The site itself is not subject to any statutory ecological designations. All statutory ecological designations in the surrounding area are separated from the site by existing development and given the nature and scale of the proposals, and primarily geological nature of these designations, they are considered unlikely to be affected.

3.2 Non-statutory Designations

Description

3.2.1 The non-statutory designations of nature conservation interest that occur within the local area are shown on Plan 4438/ECO2. The nearest non-statutory designation is The River Thames and tidal tributaries, which is designated as a Site of Metropolitan Importance for Nature Conservation (SMINC) located approximately 15m to the north of the northern boundary of the site. Among the special interest features of the SMINC are the range of habitats is supports, from freshwater to marine, forming a habitat corridor through London. The river walls in south and east London are noted as being important feeding areas for the rare bird species Black Redstart, and the river is important for wildfowl and wading birds. In addition, over 100 species of fish are present.

Evaluation

3.2.2 The site itself is not subject to any non-statutory nature conservation designations. The non-statutory designation The River Thames SMINC is located in close proximity to the northern site boundary, outside of the development site. All other non-statutory designations in the surrounding area are well separated from the site by existing development and given the nature and scale of the proposals, non-statutory designations are considered unlikely to be affected.

3.3 Ancient Woodland, Notable Trees, Priority Ponds

Description

3.3.1 There are no areas of ancient woodland or notable trees or ponds within or adjacent to the site.

Evaluation

3.3.2 It is unlikely that any ancient woodland or other notable habitats will be affected by the proposals.

3.4 Summary

3.4.1 In summary, the site itself is not subject to any statutory or non-statutory ecological designations and, subject to the implementation of appropriate mitigation measures (as described above and in section 6 below), it is considered unlikely that any such designations in the surrounding area will be significantly affected by the proposals.

4 Habitats and Ecological Features

4.1 Background Records

4.1.1 Information returned from the Records Centre does not include any specific records of protected, rare or notable plant species from within or immediately adjacent to the site. No records of priority species were returned within or adjacent to the site. No evidence for the presence of any of these species within the site was recorded during the survey work undertaken.

4.2 Overview

4.2.1 The habitats and ecological features present within the site are described below and evaluated in terms of intrinsic ecological value, such as in relation to the presence of rare plant communities or individual plant species of elevated interest. The likely effects of the proposals on the habitats and ecological features are then assessed. The value of habitats for the fauna they may support is considered separately in section 5 below.

4.2.2 The following habitats/ecological features were identified within/adjacent to the site:

- Buildings and Hardstanding;
- Ruderal Vegetation;
- Ornamental Planting;
- Scattered Scrub;
- Trees;
- Spoil; and
- Invasive Species.

4.2.3 The locations of these habitat types and features are illustrated on Plan 4438/ECO3 and described in detail below.

4.3 Priority Habitats

4.3.1 Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. In particular, Sections 41 and 42 of the NERC Act require the Secretary of State to publish a list of habitats which are of principal importance for conservation in England and Wales, respectively. This list is largely derived from the 'Priority Habitats' listed under the former UK Biodiversity Action Plan (BAP), which continue to be regarded as priority habitats under the subsequent country-level biodiversity strategies.

4.3.2 Of the habitats within the site, none are considered to qualify as UK Priority Habitats. This is discussed further in the relevant habitat sections below.

4.4 Buildings and Hardstanding

Description

4.4.1 The majority of on-site structures are warehouse style buildings of a brick, concrete or metal frame construction, with occasional temporary structures also present. A variety of roofing materials and construction types have been utilised, reflective of the ongoing manufacture and usage of the on-site buildings. As the buildings support no botanical interest, a greater level of description is provided to accompany the faunal assessment in Section 5 and Appendix 4438/3.

4.4.2 Areas of hardstanding forming vehicular access, parking areas and pedestrian paths are present across the site. Hardstanding was recorded to largely be of a tarmac or concrete construction. In general, areas of hardstanding were recorded to be well maintained and frequently used by vehicles and pedestrians, and were largely devoid of vegetation.

Evaluation

4.4.3 The buildings support a limited range of common and widespread floral species and are inherently of negligible ecological value. Potential for the buildings to support faunal species such as roosting bats and nesting birds is discussed below in section 5.

4.4.4 The areas of hardstanding across the site were recorded to be relatively well maintained, and were in frequent use at the time of survey, and largely un-vegetated. As such, the habitat is considered to be of negligible ecological value at the site level, and its loss would be of negligible ecological significance.

4.5 Ruderal Vegetation

Description

4.5.1 A small patch of ruderal vegetation was present at the north western site boundary. This habitat comprised species including Common Nettle *Urtica dioica*, Canadian Fleabane *Erigeron canadensis*, Grounsel *Senecio vulagris* and Ivy *Hedera helix sp* and has developed as a result of reduced human activity at this location.

Evaluation

4.5.2 This habitat type is restricted to a small area within the site, and is likely to be a widespread habitat, often found in infrequently managed habitats within the wider landscape. Loss of this habitat under the proposal is considered to be of negligible importance at the site level.

4.6 Ornamental Planting

Description

4.6.1 A small concrete planter was present within the site at the time of survey. At approximately 1m x 1m in size, this amenity feature was planted with a variety of ornamental species and subject to frequent management.

Evaluation

4.6.2 This habitat type is exclusively restricted to a managed ornamental planter. Loss of this habitat under the proposal is considered to be of negligible importance at the site level.

4.7 Scattered Scrub

Description

4.7.1 Several patches of scattered scrub are present within the site. These are predominantly comprised of self-seeded Buddleia *Buddleia davidii* and occasional Sycamore *Acer pseudoplatanus* saplings. No evidence to suggest this habitat is subject to regular management was observed during the survey.

Evaluation

4.7.2 This habitat comprises a low diversity of species which are common and widespread at both a local and national level. The areas of scattered scrub are small in extent within the site, and considered unlikely to be functioning as an important habitat within the site. As such, scattered scrub is considered to be of low botanical value at the site level. Due to the invasive nature of Buddleia, representing the dominant botanical species, further information is provided within the Invasive Species section below.

4.8 Trees

Description

4.8.1 A line of mature London Plane *Platanus hispanica* trees is present at the westernsite boundary, adjacent to boundary of Plot B (adjacent to Anchor and Hope Lane). This tree line is the subject of a Tree Preservation Oder (TPO) (TPO ref: TPO253).

Evaluation

4.8.2 The mature trees present at the south western site boundary were recorded to be mature in nature or approaching veteran age class and are generally of a substantial size. Accordingly, these trees are of some ecological interest in their own right such that they are considered to be of at least moderate ecological value at the local level.

4.8.3 It is understood that the trees within the site would be fully retained under the development proposals and as such, subject to recommended safeguards set out at section 6 below, the trees within the site will be retained and protected under the proposals. New planting as part of the proposals will combine with the existing trees to provide new opportunities for wildlife.

4.9 Spoil

Description

4.9.1 A small pile of spoil is present at the northern site boundary. This pile was likely put in place as a further measure to restrict vehicular access to the site, in addition to the

boundary fence. The soil predominantly comprises rubble and was largely unvegetated at the time of survey.

Evaluation

4.9.2 The spoil habitat is small, and was largely unvegetated at the time of survey. As such, the habitat is considered to be of negligible ecological value at the site level, and its loss would be of negligible ecological significance.

4.10 Invasive species (Schedule 9, WCA 1981)

Description and Evaluation

4.10.1 The extended Phase 1 habitat survey identified a large stand of Japanese Knotweed *Fallopia japonica* at the western boundary of the site (shown on Plan 4438/ECO3). Patches of Japanese Knotweed were identified at the entrance off Hope Lane, and in the on-site car park adjacent to the entrance, with additional Japanese Knotweed stands present within the neighbouring off-site private gardens. This invasive species is listed on Schedule 9 Part 2 of the Wildlife and Countryside Act 1981 (as amended) and it is an offence to cause it to grow in the wild. It should be noted that Japanese Knotweed can spread rapidly, and early control measures are recommended. Japanese Knotweed is also listed as a species of concern by the London Invasive Species Initiative (LISI).

4.10.2 Buddleia scrub is also present across the site, in a number of locations. It is not unusual for this species to be present in an industrial estate. It is also listed as a species of concern by the LISI and control/management of this species as part of a planning application is recommended. These two species are considered to be detrimental at the local level.

4.10.3 Further discussion of this issue along with a number of recommendations for controlling these species are included at section 6.

4.11 Habitat Evaluation Summary

4.11.1 A summary of the evaluation of the habitats present at the site is set out at Table 4.1 below.

Table 4.1. Summary of habitat evaluation.

Habitat	Value	Level
Buildings and Hardstanding	Negligible	Site
Ruderal Vegetation	Negligible	Site
Ornamental Planting	Negligible	Site
Scattered Scrub	Low	Local
Trees	Moderate	Local
Spoil	Negligible	Site
Invasive Species	Detrimental	Local

5 Faunal Use Of The Site

5.1 Overview

5.1.1 During the survey work, general observations were made of any faunal use of the site with specific attention paid to the potential presence of protected or notable species. Specific survey work was undertaken in respect of bats, Black Redstart and nesting birds, with the results described below.

5.2 Priority Species

5.2.1 Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. In particular, Sections 41 and 42 of the NERC Act require the Secretary of State to publish a list of species which are of principal importance for conservation in England and Wales, respectively. This list is largely derived from the 'Priority Species' listed under the former UK Biodiversity Action Plan (BAP), which continue to be regarded as priority species under the subsequent country-level biodiversity strategies.

5.2.2 During the survey work undertaken, no UK Priority Species were recorded within the site. This is discussed further below.

5.3 Bats

5.3.1 **Legislation.** All British bats are classed as European Protected Species under the Conservation of Habitats and Species Regulations 2010 (as amended) and are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). As such, both bats and their roosts (breeding sites and resting places) receive full protection under the legislation (see Appendix 4438/2 for detailed provisions). If bats are present, a licence may need to be obtained from Natural England which would be subject to appropriate measures to safeguard bats. A number of bat species are also considered S41 Priority Species.

5.3.2 **Background Records.** No specific records of bats within or adjacent to the site were returned from the desktop study. Information received from GiGL returned two bat records within the search area. The nearest, and most recent record is not species specific, referencing *Vespertilionidae* only. This record originated approximately 670m to the north of the site and dates from 2005.

5.3.3 **Survey Results**

Visual Inspection Surveys

Buildings

5.3.4 A detailed external visual inspection was undertaken of all the buildings within the site, the results of which are detailed in Appendix 4438/3, and summarised in table 5.1 below.

Table 5.1: Summary of Bat Roosting Potential categories of onsite buildings

Building Reference number	Potential of building to support roosting bats, following the inspection surveys
B1	Negligible
B2	Negligible
B3	Negligible
B4	Negligible
B5a	Negligible
B5b	Negligible
B5c	Negligible
B6	Negligible

5.3.5 In summary, 8 buildings were identified within the site boundary, comprising a combination of warehouse and industrial buildings, surrounded by hardstanding. All of the warehouse buildings appeared to be in use during the survey, with the site and surrounding off-site industrial units being subject to high levels of human activity and night time lighting. No suitable foraging and commuting habitats for bats are present, that would connect the buildings to off-site foraging grounds.

Trees

5.3.6 A line of semi-mature and mature London Plane trees are present at the site's south western boundary (TPO Ref: 0253), adjacent to Plot B. One of these trees (identified as T1 on Plan 4438/ECO3) was identified as having potential bat roosting features, albeit that the potential was minimal. The results of the tree assessment for bats undertaken at the site is summarised in Table 5.2 below:

Table 5.2: Tree inspection results.

Tree No.	Species	Age	Potential Roost Features	Risk Category
T1	London Plane	Mature	Small cavity in lower branch	Low

5.3.7 **Evaluation and Assessment of Likely Effects**

Roosting

Buildings

5.3.8 Due to their construction types, general good state of repair, high levels of use and high levels of night time lighting associated with the active industrial and commercial trading estate, the on-site buildings are considered unlikely to provide anything greater than a negligible potential to support roosting bats.

5.3.9 As such it is considered that specific mitigation or licensing for bats is not required. Nonetheless, bats are dynamic animals and as such it remains possible that individuals could colonise the site in the future. Natural England guidance in respect of European Protected Species[13] such as bats advises that, even where proposals are reasonably unlikely to result in any offence, such that licensing is not required, reasonable precautions should be taken to minimise the risk to protected species in the unlikely

[13] Natural England (2013) *'European Protected Species: Mitigation Licensing - How to get a licence (WML-G12)'*

event that they should be found during the course of the activity. Accordingly, recommended precautionary mitigation measures are set out at section 6 below and subject to their implementation it is considered that bats will be fully safeguarded under the proposals.

Trees

5.3.10 It is understood that all trees within the site, including the single tree described above with a potential bat roost feature, are to be retained under the proposals, such that in the event that bats are present within the trees they will remain unaffected. As such, subject to the implementation of the recommendations outlined at section 6 below in relation lighting, it is considered that bats will be fully safeguarded under the proposals.

Foraging and Commuting

5.3.11 A lack of suitable foraging habitat, or features typically used by commuting bats (hedgerows and watercourses) within the site mean that it is highly unlikely that bats would rely on the site for these activities.

5.4 Badger

5.4.1 **Legislation:** Badger receive legislative protection under the Protection of Badgers Act 1992 (see Appendix 4438/2 for detailed provisions). The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain. It is the duty of planning authorities to consider the conservation and welfare impacts of development upon Badger and issue permissions accordingly.

5.4.2 Licences can be obtained from Natural England for development activities that would otherwise be unlawful under the legislation. Guidance on the types of activity that should be licensed is laid out in the relevant best practice guidance. [14, 15]

5.4.3 **Background Records:** No specific records of Badger within or adjacent to the site were returned from the desktop study. No records of Badger were returned for the wider search area.

5.4.4 **Survey Results and Evaluation.** The entirety of the site is unsuitable for Badger, comprising existing industrial development and hardstanding.

5.4.5 No Badger setts were found within or immediately adjacent to the site, nor were any latrines or dung pits recorded. There were no recorded signs of Badgers foraging in, or commuting through, the site. Accordingly, this species is unlikely to be affected by the proposals.

5.5 Water Vole

5.5.1 **Legislation:** Water Vole is fully protected under the Wildlife and Countryside Act 1981 (as amended). Water Vole is also a S41 Priority Species. The legislation affords protection to individuals of the species and their breeding sites and places of shelter (see Appendix 4438/2 for detailed provisions). There is no provision under the Act for

[14] English Nature (2002) '*Badgers and Development*'
[15] Natural England (2011) '*Badgers and Development: A Guide to Best Practice and Licensing*', Interim Guidance Document

licensing activities undertaken for the purpose of development. The Act includes a statutory defence in relation to activities that would otherwise be an offence if they are the incidental result of a lawful operation and could not reasonably be avoided.

5.5.2 If, despite all reasonable efforts, properly authorised development will adversely affect Water Vole and there are no alternative habitats nearby, Natural England may issue a licence to trap and translocate Water Vole for the purpose of conservation. To issue such a licence, Natural England would need to be assured there was no reasonable alternative to the development and that there were no other practical solutions that would allow Water Vole to be retained at the same location. Natural England would also require assurance that the actions would make a positive contribution to Water Vole conservation.

5.5.3 **Background Records:** No specific records of Water Vole within or adjacent to the site were returned from the desktop study. No records of Water Vole were returned for the wider search area.

5.5.4 **Survey Results and Evaluation:** The entirety of the site is unsuitable for Water Vole, comprising existing industrial development and hardstanding.

5.5.5 No evidence of Water Vole was found during the specific survey work undertaken and as such this species is unlikely to be affected by the proposals.

5.6 Otter

5.6.1 **Legislation:** Otter is fully protected under the Wildlife and Countryside Act 1981 (as amended) and is a European Protected Species under the Conservation of Habitats and Species Regulations 2010 (as amended). Such legislation affords protection to individuals of the species and their breeding sites and places of rest (see Appendix 4438/2 for detailed provisions). Otter is also a S41 Priority Species.

5.6.2 **Background Records:** No specific records of Otter within or adjacent to the site were returned from the desktop study. No records of Otter were returned for the wider search area.

5.6.3 **Survey Results and Evaluation:** The entirety of the site is unsuitable for Otter, comprising existing industrial development and hardstanding.

5.6.4 No evidence of Otter was found during the specific survey work undertaken and as such this species is unlikely to be affected by the proposals.

5.7 Other Mammals

5.7.1 **Legislation.** A number of other UK mammal species do not receive direct legislative protection relevant to development activities but may receive protection against acts of cruelty (e.g. under the Wild Mammals (Protection) Act 1996). In addition, a number of these mammal species are S41 Priority Species.

5.7.2 **Background Records.** No specific records of other mammals from within or adjacent to the site were returned from the desktop study. A number of records of Hedgehog *Erinaceus europaeus* (Priority Species) were returned from within the search area around the site, including within the 1km x 1km OS grid square containing the western part of the site (see Appendix 4398/2). More specific information was not available

that would allow the precise location of these records to be determined in relation to the site.

5.7.3 **Survey Results and Evaluation.** No evidence of any other protected, rare or notable mammal species was recorded within the site. Other mammal species likely to utilise the site, such as Fox *Vulpes vulpes*, remain common in both a local and national context, and as mentioned above do not receive specific legislative protection in a development context. As such, any impact on these species would not be a material planning consideration and the loss of potential opportunities for these species to the proposals would be of negligible significance.

5.7.4 The desktop study returned background records of Common Seal *Phoca vitulina*, but the site offers no potential opportunities for this species.

5.8 Amphibians

5.8.1 **Legislation.** All British amphibian species receive a degree of protection under the Wildlife and Countryside Act 1981 (as amended). Great Crested Newt is protected under the Act and is also classed as a European Protected Species under the Conservation of Habitats and Species Regulations 2010 (as amended). As such, both Great Crested Newt and habitats utilised by this species are afforded protection (see Appendix 4438/2 for detailed provisions). Great Crested Newt is also a S41 Priority Species, as are Common Toad *Bufo bufo*, Natterjack Toad *Epidalea calamita*, and Pool Frog *Pelophylax lessonae*.

5.8.2 **Background Records.** No specific records of Great Crested Newt from within or adjacent to the site were returned from the desktop study. There was a single record of Common Frog *Rana temporaria* located approximately 849m to the north of the site in 2002.

5.8.3 **Survey Results and Evaluation.** The entirety of the site is unsuitable for Great Crested Newt, comprising existing industrial development and hardstanding and no ponds were identified within 500m of the site boundary.

5.8.4 No habitats suitable to support amphibian species are present within or adjacent to the site.

5.9 Reptiles

5.9.1 **Legislation**. All six species of British reptile are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), which protects individuals against intentional killing or injury. Sand Lizard *Lacerta agilis* and Smooth Snake *Coronella austriaca* receive additional protection under the Conservation of Habitats and Species Regulations 2010 (as amended); refer to Appendix 4438/2 for detailed provisions. All six reptile species are also S41 Priority Species.

5.9.2 **Background Records.** No specific records of retiles from within or adjacent to the site were returned from the desktop study.

5.9.3 **Survey Results and Evaluation.** The entirety of the site is unsuitable for reptiles, comprising existing industrial development and hardstanding. No records of reptiles were returned for the wider search area.

5.9.4 No habitats suitable to support reptile species are present within or adjacent to the site.

5.10 Black Redstart

5.10.1 **Legislation.** All wild birds and their nests receive protection under Section 1 of the Wildlife and Countryside Act 1981 (as amended) in respect of killing and injury, and their nests, whilst being built or in use, cannot be taken, damaged or destroyed. Black Redstart is included in Schedule 1 of the Act, and therefore receives greater protection and is subject to special penalties (see Appendix 4438/2 for detailed provisions).

5.10.2 **Background Records.** Information returned from the GiGL returned several records for Black Redstart from within the search area. None of the records originate from within the site itself, with the most recent record originating approximately 900m north of the site in 1999. The London Bird Report for 2014[16] (published May 2016), only includes a record of a single Breeding Pair of Black Redstart, in the Fulham area of London.

5.10.3 **Survey Results and Evaluation.** No Black Redstart were observed within the site during the Phase 1 habitat survey. A lack of suitable foraging habitat within the site, and few potentially suitable nesting opportunities within or on existing buildings suggest that Black Redstart are unlikely to be adversely affected by the development proposals. The creation of new foraging opportunities for Black Redstart is proposed in section 6, should they return to the locality. Safeguarding measures in respect of nesting birds are also proposed in section 6 below.

5.10.4 The above approach was agreed through verbal conversation with Louise Thayre at the Royal Borough of Greenwich Council on 6th June 2016.

5.11 Other Birds

5.11.1 **Legislation.** All wild birds and their nests receive protection under Section 1 of the Wildlife and Countryside Act 1981 (as amended) in respect of killing and injury, and their nests, whilst being built or in use, cannot be taken, damaged or destroyed. Species included on Schedule 1 of the Act receive greater protection and are subject to special penalties (see Appendix 4438/2 for detailed provisions).

5.11.2 **Conservation Status.** The conservation importance of British bird species is categorised based on a number of criteria including the level of threat to a species' population status[17]. Species are listed as Green, Amber or Red. Red Listed species are considered to be of the highest conservation concern being either globally threatened and or experiencing a high/rapid level of population decline (>50% over the past 25 years). A number of birds are also S41 Priority Species.

5.11.3 **Background Records.** Information returned from the GiGL included records for several bird species in the vicinity of the site, with the nearest records including Stock Dove *Columba oenas* and Woodcock *Scolopax rusticola*. There are also records of the Red

[16] *London Natural History Society (2016) London Bird Report, NO.79 for the year 2014*

[17] Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) *'Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man'* British Birds *108*, pp.708-746

Listed Tree Sparrow *Passer montanus*, and Golden Plover *Pluvialis apricaria,* which are also Priority Species. None of the records originate from within the site itself.

5.11.4 **Survey Results.** Several species of bird were observed within the site during the Phase 1 survey including: Wood Pigeon *Columba palumbus*, Feral Pigeon *Columba Livia domestica*, Blackbird *Turdus merula*, and House Sparrow *Passer domesticus*.

5.11.5 **Evaluation.** Most of the birds recorded at the site are not listed as having any special conservation status, although House Sparrow is included on the Red list as a result of declines in UK breeding populations and is also a Priority Species. However, the habitats present are common in the surrounding area and there is no evidence to suggest the site is of elevated value at a local level for this species, which in any case, is common in Great Britain[18]. The proposals will result in the loss of several buildings which Feral Pigeon have potential to nest within. Accordingly, a number of safeguards in respect of nesting birds are proposed, as detailed in section 6 below. In the long-term, new nesting opportunities will be available for birds as described in section 6 below.

5.12 Invertebrates

5.12.1 **Legislation.** A number of invertebrate species are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). In addition, Large Blue Butterfly *Maculinea arion*, Fisher's Estuarine Moth *Gortyna borelii lunata* and Lesser Whirlpool Ram's-horn Snail *Anisus vorticulus* receive protection under the Conservation of Habitats and Species Regulations 2010 (as amended); refer to Appendix 4438/2 for detailed provisions. A number of invertebrates are also S41 Priority Species.

5.12.2 **Background Records.** A small number of records of invertebrates were returned from the search area by GiGL, all of which were over 800m away from the site, with no records returned from within or adjacent to the site itself.

5.12.3 **Survey Results and Evaluation.** No evidence for the presence of any protected, rare or notable invertebrate species was recorded within the site. The site is dominated by buildings and hardstanding, which are likely to support only a limited diversity of common invertebrates. Accordingly, given the habitat composition of the site and lack of adjacent sites designated for significant invertebrate interest, it is considered highly unlikely that the proposals will result in significant harm to any protected, rare or notable invertebrate populations.

[18] Population estimates of birds in Great Britain and the United Kingdom. Musgrove *et al.*, British Birds, 2013

5.13 Summary

5.13.1 A summary of the evaluation of faunal interest at the site is set out at Table 5.3 below.

Table 5.3: Summary of faunal evaluation.

Species / Group	Value	Level
Bats – Roosting	Negligible	Local
Bats – Foraging / Commuting	Negligible	Local
Badger	None	Site
Dormouse	None	Site
Other Mammals	Negligible	Local
Birds	Low	Local
Amphibians	None	Site
Reptiles	None	Site
Invertebrates	Negligible	Site

6 Mitigation Measures and Ecological Enhancements

6.1 Mitigation

6.1.1 Based on the habitats, ecological features and associated fauna identified within / adjacent to the site, it is recommended that the following mitigation measures (**MM1 – 4**) are implemented under the proposals. Further, detailed mitigation strategies or method statements can be secured via suitably-worded planning conditions, as recommended by relevant best practice guidance (BS 42020:2013).

Tree Protection

6.1.2 **MM1 – Tree Protection.** All trees to be retained within the proposed development should be protected during construction in line with standard arboricultural best practice (BS5837:2012) or as otherwise directed by a suitably competent arboriculturalist. This would involve the use of protective fencing or other methods appropriate to safeguard the root protection areas of retained trees / hedgerows. See the Arboriculture Impact Assessments, referenced as JMK9275 which accompanies the planning application, for further information.

Off-site Watercourses

6.1.3 **MM2 – Pollution Prevention.** In order to safeguard against any potential run-off or pollution events during construction, best management practice should be followed in accordance with the advice issued by the Environment Agency in its former Pollution Prevention Guidelines[19] or relevant updated documents. This should reduce potential pollution effects, minimising any harm to wildlife associated with the river, and any connecting watercourses. This should include relevant safeguards such as:

- Storage areas for chemicals, fuels, etc. should be sited well away from the river, and stored on an impervious base within an oil-tight bund with no drainage outlet;
- Where possible, and with prior agreement of the sewage undertaker, silty water should be disposed of to the foul sewer;
- Water washing of vehicles, particularly those carrying fresh concrete and cement, mixing plant, etc. should be carried out in a contained area as far from the river as practicable, to avoid contaminated water entering this habitat; and
- Refuelling of plant should take place in a designated area, preferably on an impermeable surface.

Bats

6.1.4 **MM3 – Update Survey.** Should any significant time elapse (2 years or more) between the survey work detailed above and any development works, a further survey of the buildings with potential to support roosting bats should be undertaken prior to the commencement of works to confirm the continued likely absence of bats.

[19] Primarily: Environment Agency (2012) *'Working at construction and demolition sites: PPG6 Pollution Prevention Guidelines'*, 2nd Edition

Nesting Birds

6.1.5 **MM4 – Timing of Works.** To avoid a potential offence under the Wildlife & Countryside Act, no clearance of suitable vegetation or buildings should be undertaken during the bird-nesting season (1st March to 31st August inclusive). If this is not practicable, any potential nesting habitat to be removed should first be checked by a competent ecologist in order to determine the location of any active nests. Any active nests identified should then be cordoned off (minimum 5m buffer) and protected until the end of the nesting season or until the birds have fledged. These checking surveys would need to be carried out no more than three days in advance of vegetation clearance.

6.2 Ecological Enhancements

6.2.1 The National Planning Policy Framework (NPPF) encourages new developments to maximise the opportunities for biodiversity through incorporation of enhancement measures. The proposals present the opportunity to deliver ecological enhancements at the site for the benefit of local biodiversity, thereby making a positive contribution towards the broad objectives of national conservation priorities.

6.2.2 The recommendations and enhancements summarised below are considered appropriate given the context of the site and the scale and nature of the proposals. Through implementation of the following ecological enhancements (**EE1** – **EE7**), the opportunity exists for the proposals to deliver a range of benefits for biodiversity at the site.

Habitat Creation and Management

6.2.3 **EE1 – Invasive Plant Species**. The presence of Japanese Knotweed was confirmed within the site. This species is listed in the Wildlife and Countryside Act 1981 (as amended) under Schedule 9 Part II, which makes it an offence to cause to grow in the wild any plant listed on the schedule. As such, all relevant precautions should be taken when carrying out actions that could potentially spread these plants.

6.2.4 The government has set out guidance on what can be considered "causing to grow in the wild" within a response to the Schedule 9 review[20] which states:

"*We would expect that where plants listed in Schedule 9 are grown in private gardens, amenity areas etc, and reasonable measures will be taken to confine them to the cultivated area so as to prevent their spreading to the wider environment and beyond the landowner's control. It is our view that any failure to do so, which in turn results in the plant spreading to the wild, could be considered as 'causing to grow in the wild' and as such would constitute an offence…. Additionally, negligent or reckless behaviour, such as inappropriate disposal of garden waste, where this results in a Schedule 9 species becoming established in the wild would also constitute an offence*."

6.2.5 Given the nature of the development site and the development proposals, the potential for spread of this species into the wild would likely be centred on the transportation of material to off-site locations, or rhizome dispersal during vegetation management. It is recommended that suitable control measures for this species be

[20] DEFRA/WAG (2009) *"Government response to the public consultation: Review of Schedule 9 to the Wildlife and Countryside Act 1981 and the Ban on Sale of Certain Non-native Species"*.

put in place and actioned in advance of or during the site clearance, and as part of the regular landscape maintenance activities in order to eliminate this species from the site.

6.2.6 Stands of Buddleja are present throughout the site, which is a species of concern listed by LISI. As such, it is recommended that this species is sensitively removed from site so as to avoid spreading it within the local vicinity. The removal of Japanese Knotweed and Buddleja will contribute to the objectives of the LISI.

6.2.7 **EE2 – New Planting.** It is recommended that where practicable, new planting within the site be comprised of native species of local provenance, including trees and shrubs appropriate to the local area. Suitable species for inclusion within the planting could include native trees such as Birch *Betula pendula* and Field Maple, whilst native shrubs could include species such as Dogwood *Cornus sanguinea*, Guelder-rose *Viburnum opulus*, Hazel *Corylus avellana* and Spindle *Euonymus europaeus*. Any areas of amenity planting could include species of benefit to invertebrates, such as those listed on the RHS Perfect for Pollinators list[21].

6.2.8 **EE3 – Wildflower Grassland.** It is recommended that areas of native wildflower grassland are created within the site such that, in combination with new native landscape planting, opportunities for biodiversity will be maximised under the proposals.

6.2.9 **EE4 – SuDs.** A SuDS network, should be created as part of the proposals, and where practicable, surface water attenuation features should be designed to be of value to wildlife such as through incorporating sinuous and gently sloping margins to allow marginal and aquatic vegetation to develop whilst also creating a variety of conditions and micro-climates which would encourage a broad range of invertebrates to colonise. Creation of such habitats would provide opportunities for a range of wildlife (if guided by ecological principles) while also helping to attenuate surface water run-off.

Bats

6.2.10 **EE5 - Bat Boxes.** It is recommended that a number of bat boxes be incorporated within the proposed development, for instance by integrating these into new buildings and/or attaching them to retained trees. The provision of bat boxes will provide new roosting opportunities for bats in the area, such as Common Pipistrelle and Soprano Pipistrelle, national Priority Species. So as to maximise their potential use, the bat boxes should ideally be erected as high as possible and sited in sheltered wind-free areas facing in a range of directions. The precise number and locations of boxes / roost features should be determined by a competent ecologist, once the relevant final development design details are available and should ensure that new roosting locations are situated away from lighting in order to maximise any potential for use, with dark corridors maintained between roosting opportunities and retained foraging/commuting habitats and links with offsite areas.

Black Redstart

6.2.11 **EE6 – Biodiverse Roof**. As set out above, it is considered that the site is unlikely to be of value in terms of Black Redstart, in its current condition. However, there are opportunities for creation of new foraging and nesting habitat as part of the proposals

[21] Royal Horticultural Society. '*RHS Perfect for Pollinators: Wildflowers'.*

which could deliver an increase in the diversity and quality of habitats present for this and other native species.

6.2.12 In this regard, it is recommended that the buildings incorporate a biodiverse roofs and walls. It is recommended that this be designed on the basis of an extensive green and brown roof system utilising a shallow, low nutrient substrate. Further detail setting out key principles for the green roof creation and specific measures to enhance opportunities for biodiversity is provided at Appendix 4438/4. Biodiverse Roofs and Walls are recommended within the Local Plan to enhance the biodiversity of a site.

Other Birds

6.2.13 **EE7 - Bird Boxes**. A number of bird nesting boxes should be incorporated within the proposed development, thereby increasing nesting opportunities for birds at the site. Ideally, the bird boxes will have greater potential for use if sited on suitable, retained trees, situated as high up as possible. The precise number and locations of boxes should be determined by a competent ecologist, post-planning once the relevant final development design details have been approved.

7 Conclusions

7.1.1 Aspect Ecology has carried out an ecological appraisal of the proposed development, based on the results of a desktop study, Phase 1 habitat survey and a number of detailed protected species surveys.

7.1.2 The available information confirms that there are no statutory nature conservation designations for the site. The non-statutory designation The River Thames SMINC is located in close proximity to the northern boundary outside the development site. Subject to standard construction safeguards being implemented, this and all other designations within the surrounding area are highly unlikely to be adversely affected by the proposals.

7.1.3 The extended Phase 1 habitat and faunal survey has established that the site is dominated by habitats of low ecological value. The proposals have sought to retain those features of greatest relative value. Where it has not been practicable to avoid loss of habitats, new habitat creation has been proposed to enhance biodiversity, in conjunction with the landscape proposals.

7.1.4 The habitats within the site have some minor potential to support protected species (nesting birds). A number of mitigation measures have been proposed to minimise any outstanding risk of harm to protected species, with compensatory measures proposed, where appropriate, in order to maintain the conservation status of local populations.

7.1.5 In conclusion, the site offers few opportunities for protected species. The proposals have sought to further minimise potential impacts and, subject to the implementation of appropriate safeguarding and mitigation, it is considered unlikely that the proposals will result in harm to biodiversity. On the contrary, the opportunity exists to provide a considerable range of benefits for biodiversity as part of the proposals and clear ecological enhancements can be delivered.

Plan 4438/ECO1:

Site Location

Key:

Site Location

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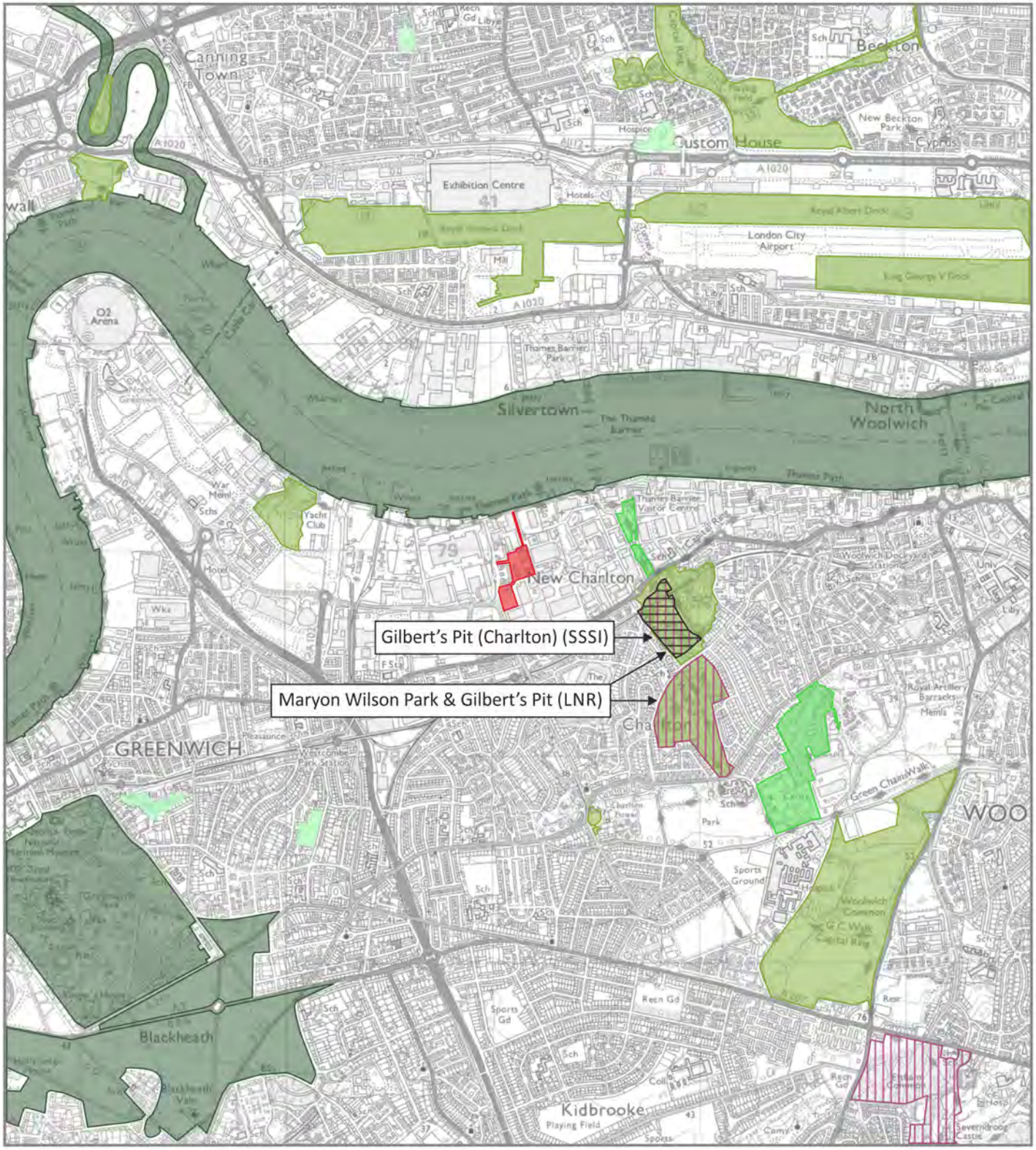
Charlton Riverside, Greenwich	PROJECT
Site Location	TITLE
4438/ECO1	DRAWING NO.
-	REV.
September 2016	DATE

Plan 4438/ECO2:

Ecological Designations



Key:

- Site Location
- Sites of Special Scientific Interest (SSSI)
- Local Nature Reserve (LNR)
- Sites of Importance for Nature Conservation of Metropolitan Importance
- Sites of Importance for Nature Conservation of Borough Importance Grade 1
- Sites of Importance for Nature Conservation of Borough Importance Grade 2
- Sites of Importance for Nature Conservation of Local Importance

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Charlton Riverside, Greenwich	PROJECT
Ecological Designations	TITLE
4438/ECO2	DRAWING NO.
-	REV.
September 2016	DATE

Plan 4438/ECO3:

Habitats & Ecological Features

KEY:

- Site Boundary
- Ruderal Vegetation
- Ornamental Planting
- Scattered Scrub
- Tree
- Tree with Low Bat Roost Potential
- Spoil
- Building
- Hardstanding
- Fence
- Japanese Knotweed

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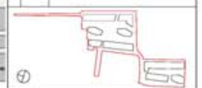
Charlton Riverside, Greenwich	PROJECT
Habitats And Ecological Features	TITLE
4438/ECO3	DRAWING NO.
-	REV.
September 2016	DATE

Appendix 4438/1:

Proposed Site Layout

NOTE:
1- All internal layouts and furnishings are shown for indicative purposes only.
2- All landscape layouts are shown for indicative purposes only.

Rev	Date	Description



Project Title
CHARLTON RIVERSIDE - PHASE 1

Drawing Title
GA Plan
Site
Roof plan

Reason for Issue
Planning

Status
For information

Job No	Scale	Date
10046	1:500 @ A0	DEC 2016

Drawing No	Revision
10046-A-DRG-Z0-G100-2030-PL	

SimpsonHaugh AND PARTNERS

Appendix 4438/2:

Legislation Summary

LEGISLATION SUMMARY

1. In England and Wales primary legislation is made by the UK Parliament, and in Scotland by the Scottish Parliament, in the form of Acts. The main piece of legislation relating to nature conservation in the UK is the Wildlife and Countryside Act 1981 (as amended).

2. Acts of Parliament confer powers on Ministers to make more detailed orders, rules or regulations by means of secondary legislation in the form of statutory instruments. Statutory instruments are used to provide the necessary detail that would be too complex to include in an Act itself[1]. The provisions of an Act of Parliament can also be enforced, amended or updated by secondary legislation.

3. In summary, the key pieces of legislation relating to nature conservation in the UK are:

    - Wildlife and Countryside Act 1981 (as amended)
    - Protection of Badgers Act 1992
    - Hedgerows Regulations 1997
    - Countryside and Rights of Way (CRoW) Act for England and Wales 2000
    - Natural Environment and Rural Communities Act 2006
    - Conservation of Habitats and Species Regulations 2010 (as amended)

4. A brief summary of the relevant legislation is provided below. The original Acts and instruments should be referred to for the full and most up to date text of the legislation.

5. **Wildlife and Countryside Act 1981 (as amended)**. The WCA Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) identified for their flora, fauna, geological or physiographical features. The Act contains strict measures for the protection and management of SSSIs.

6. The Act also refers to the treatment of UK wildlife including protected species listed under Schedules 1 (birds), 5 (mammals, herpetofauna, fish, invertebrates) and 8 (plants).

7. Under Section 1(1) of the Act, all wild birds are protected such that is an offence to intentionally:

    - Kill, injure or take any wild bird;
    - Take, damage or destroy the nest of any wild bird whilst in use* or being built;
    - Take or destroy an egg of any wild bird.

    * The nests of birds that re-use their nests as listed under Schedule ZA1, e.g. Golden Eagle, are protected against taking, damage or destruction irrespective of whether they are in use or not.

8. Offences in respect of Schedule 1 birds are subject to special, i.e. higher, penalties. Schedule 1 birds also receive greater protection such that it is an offence to intentionally or recklessly:

    - Disturb any wild bird included in Schedule 1 while it is building a nest or while it is in, on or near a nest containing eggs or young;
    - Disturb dependent young of such a bird

[1] http://www.parliament.uk/business/bills-and-legislation/secondary-legislation/statutory-instruments/

Under Section 9(1) of the Act, it is an offence to:

- Intentionally kill, injure or take any wild animal included in Schedule 5.

9. In addition, under Section 9(4) it is an offence to intentionally or recklessly:

- Obstruct access to, any structure or place which any wild animal included in Schedule 5 uses for shelter or protection; or
- Disturb any wild animal included in Schedule 5 while occupying a structure or place which it uses for that purpose.

10. Under Section 13(1) it is an offence:

- To intentionally pick, uproot or destroy any wild plant listed in Schedule 8; or
- Unless the authorised person, to intentionally uproot any wild plant not included in Schedule 8.

11. The Act also contains measures (S.14) for preventing the establishment of non-native species that may be detrimental to native wildlife, prohibiting the introduction into the wild of animals (releases or allows to escape) and plants (plants or causes to grow) listed under Schedule 9.

12. **Protection of Badgers Act 1992.** The Act aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain. It should be noted that the legislation is not intended to prevent properly authorised development. Under the Act it is an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat* a Badger, or attempt to do so;
- To intentionally or recklessly interfere with a sett# (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

* the intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence

\# A sett is defined as "*any structure or place which displays signs indicating current use by a Badger*". Natural England advice (June 2009) is that a sett is protected so long as such signs remain present, which in practice could potentially be for some time after the last actual occupation by Badger. Interference with a sett includes blocking tunnels or damaging the sett in any way

13. Licences can be obtained from the Statutory Nature Conservation Organisation (SNCO) for development activities that would otherwise be unlawful under the legislation, provided there is suitable justification. The SNCO for England is Natural England.

14. **Hedgerows Regulations 1997**. 'Important' hedgerows (as defined by the Regulations) are protected from removal (up-rooting or otherwise destroying). Various criteria specified in the Regulations are employed to identify 'important' hedgerows for wildlife, landscape or historical reasons.

15. **Countryside and Rights of Way (CRoW) Act for England and Wales 2000.** The CRoW Act provides increased measures for the management and protection of SSSIs and strengthens wildlife enforcement legislation. Schedule 12 of the Act amends the species provisions of the WCA 1981, strengthening the legal protection for threatened species. The Act also introduced a duty on Government to have regard to the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity.

16. **Natural Environment and Rural Communities Act 2006.** Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as local planning authorities, in implementing their duty under Section 40 of the Act, to have regard to the conservation of biodiversity in England, when exercising their normal functions. 56 habitats and 943 species of principal importance are included on the S41 list. These are all the habitats and species in England that were identified as requiring action in the UK Biodiversity Action Plan (BAP).

17. **Conservation of Habitats and Species Regulations 2010 (as amended).** The Regulations enact the European Union's Habitats Directive (92/43/EEC) in the UK. The Habitats Directive was designed to contribute to the maintenance of biodiversity within member states through the conservation of sites, known in the UK as Special Areas of Conservation (SACs), containing habitats and species selected as being of EC importance (as listed in Annexes I and II of the Habitats Directive respectively). Member states are required to take measures to maintain or restore these natural and semi-natural habitats and wild species at a favourable conservation status.

18. The Regulations also require the compilation and maintenance of a register of European sites, to include SACs and Special Protection Areas (SPAs)[2] classified under Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive). These sites constitute the Natura 2000 network. The Regulations impose restrictions on planning decisions likely to significantly affect SPAs or SACs.

19. The Regulations also provide protection to European Protected Species that largely overlaps with the WCA 1981, albeit the provisions are generally stricter. Under Regulation 41 it is an offence, *inter alia*, to:

- Deliberately capture, injure or kill any wild animal of a European Protected Species;
- Deliberately disturb any wild animals of any such species, including in particular any disturbance likely to impair their ability to survive, to reproduce or to hibernate, or migrate, or which is likely to affect significantly their local distribution or abundance;
- Deliberately take or destroy the eggs of such an animal;
- Damage or destroy a breeding site or resting place of such an animal

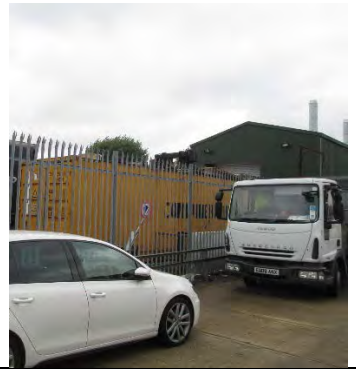
20. The Regulations do provide a licensing system that permit otherwise illegal activities in relation to European Protected Species, subject to certain tests being fulfilled.

[2] Special Protection Areas (SPAs) are protected sites classified in accordance with Article 4 of the EC Directive on the Conservation of Wild Birds (79/409/EEC) (aka the Birds Directive), which came into force in April 1979. SPAs are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species.

Appendix 4438/3:

Building Description Table

Building	Photograph(s)	Description	Features providing bat roosting potential	Evidence of bats / assessment of bat roosting potential
B1		**Building B1** is a two storey warehouse style building currently in use by a car rental firm. The building is of a part brick, and part pre-fabricated metal construction, with a pitched metal clad roof.	No suitable features were identified, that would provide potential roosting opportunities for bats.	No bats or evidence for the presence of roosting bats was recorded throughout the survey of the building. Due to the construction type, surrounding industrial habitats, and level of night time lighting present, it is considered that building B1 has **negligible potential** to support roosting bats.
B2		**Building B2** is a single storey building of red brick construction, supporting a pitched roof of corrugated slate tiles.	No suitable features were identified, that would provide potential roosting opportunities for bats.	No bats or evidence for the presence of roosting bats was recorded throughout the survey of the building. Due to the construction type, surrounding industrial habitats, and level of night time lighting present, it is considered that building B2 has **negligible potential** to support roosting bats.
B3		**Buildings B3** is a two storey warehouse style building currently in use as offices and a bus depot/mechanics. The building is of a part brick, and part pre-fabricated metal construction, with a pitched metal clad roof.	No suitable features were identified, that would provide potential roosting opportunities for bats.	No bats or evidence for the presence of roosting bats was recorded throughout the survey of the building. Due to the construction type, surrounding industrial habitats, and level of night time lighting present, it is considered that building B3 has **negligible potential** to support roosting bats.

Building	Photograph(s)	Description	Features providing bat roosting potential	Evidence of bats / assessment of bat roosting potential
B4		**Building B4** is a two storey warehouse style building, of corrugated metal construction. It is currently in use as part of the operation at buildings B3.	No suitable features were identified, that would provide potential roosting opportunities for bats.	No bats or evidence for the presence of roosting bats was recorded throughout the survey of the building. Due to the construction type, surrounding industrial habitats, and level of night time lighting present, it is considered that building B4 has **negligible potential** to support roosting bats.
B5a-c		**B3a – B5c** are a line of warehouse style buildings, connected by corrugated metal facade. The buildings are predominately of red brick construction, supporting a corrugated asbestos roof structure. No roof voids are present. All the warehouses are in use and subject to high levels of night time lighting.	No suitable features were identified, that would provide potential roosting opportunities for bats.	No bats or evidence for the presence of roosting bats was recorded throughout the survey of the building. Due to the construction type, surrounding industrial habitats, and level of night time lighting present, it is considered that buildings B5a-c has **negligible potential** to support roosting bats.
		**B6** is a single storey building of red brick construction, supporting a pitched roof of corrugated slate tiles.	No suitable features were identified, that would provide potential roosting opportunities for bats.	No bats or evidence for the presence of roosting bats was recorded throughout the survey of the building. Due to the construction type, surrounding industrial habitats, and level of night time lighting present, it is considered that building B6 has **negligible potential** to support roosting bats.

Appendix 4438/3:

Green Roof Principles

Key Principles for Green Roof Creation

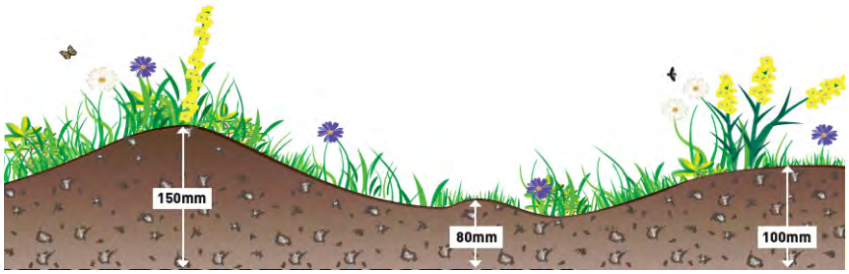
Adapted from the Buglife publication 'Creating Green Roofs for Invertebrates: A Best Practice Guide'

To maximise benefits for invertebrates and other wildlife species, an extensive green roof system should be provided, comprised of shallow, low nutrient substrates. The resulting environmental conditions are well suited to the growth of low growing hardy species, whilst varying substrate depth can support a greater diversity of plants and associated biodiversity.

Green roofs should be designed to provide a mosaic of habitats including open fine-leaved grassland, wildflower-rich grassland, heathland and open bare areas, forming a variety of habitat resources for invertebrate species in close proximity.

Bare, loose substrate provides opportunities for burrowing bee and wasp species and warms up quickly, providing an important resource for warmth-loving invertebrates to bask. Open areas also provide good foraging areas for visual predators such as spiders and ground beetles.

Variation in substrate depth contributes to biodiversity, with thin substrate being less vegetated, providing bare, open areas, whilst deeper areas of substrate are likely to hold more moisture and be more substantially vegetated. Varying substrate depth will also create localised variations in topography and microclimate, encouraging the development of structurally diverse vegetation.



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Key Principles for Green Roof Creation

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Green roofs can be left to establish naturally, or can planted with wildflowers, either by seeding and/or plug planting. Planting should comprise locally appropriate native seeds/plants that are matched to the subtrate type, pH and desired habitat. The inclusion of fast germinating annual species will provide an important resource for insects during early establishment, whilst spring and autumn flowering species should be chosen to provide an extended pollen and nectar source throughout the year.

Additional habitat features such as log piles/deadwood piles, waterbodies, bug hotels and habitat walls should also be considered to provide additional habitat opportunities for invertebrate species.

Biodiverse roofs require little management due to the low nutrient, shallow substrates and exposure to the elements, limiting ecological succession. However, maintenance visits should be undertaken twice a year to inspect drainage outlets, remove any unwanted plants (e.g. Buddleia) and carry out small-scale habitat management (e.g. cutting of wildflower grassland areas, recreation of scrapes and bare ground areas). Cutting or removal of vegetation should be carried out in small areas on rotation to ensure a continuity of different habitat stages across the roof.

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