Royal HaskoningDHV
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REPORT

Ecological Impact Assessment

8-10 Southampton Row & 1 Fisher Street

Client: Idé Real Estate Ltd

Reference: I&BPB6071R001F02
Revision: 02/Final
Date: 10 May 2017

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1 Introduction

This Ecological Impact Assessment (EcIA) presents ecological information obtained during a desk-study and Extended Phase 1 Habitat Survey (EP1HS) undertaken between November 2016 and April 2017.

This EcIA report is produced on behalf of Idé Real Estate Ltd as part of a full planning application for a proposed development in Holborn, London. Further details on the proposed development can be found **Section 3.1**

This report evaluates the nature conservation value of the ecological features present within the red line boundary shown on **Appendix A, Figure 3**, assesses the significance of any effects of the proposed development on these features, and sets out proposed mitigation and enhancement measures if required.

2 Legislation, Policy and Guidance

This EcIA has been undertaken with reference to current best practice and in particular the *Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland: Terrestrial, Freshwater and Coastal* (Chartered Institute of Ecology and Environmental Management (CIEEM), 2016).

A full summary of the relevant ecological legislation is included within **Appendix B** and contains details of how individual habitats, site and species are protected (or controlled) by UK legislation, what the penalties are in in relation to these species and what the licensing requirements are for individual species. This summary is provided for information only, and does not constitute formal legal advice.

3 Project Description

3.1 Proposed development

The proposed development is for the redevelopment of an existing building and construction of an extension at 8-10 Southampton Row and 1 Fisher Street , for the creation of a 120 bedroom hotel with an ancillary restaurant and bar, this is indicated by the red line boundary shown on **Appendix A, Figure 3**.

The existing site comprises the Grade II Listed Carlisle House (8-10 Southampton Row) which fronts onto Southampton Row. The site is currently used as a Crossrail site office and construction activities at upper floors. It is assumed that the Crossrail works will be completed in late-2017. To the rear of the site is the Crossrail emergency access shaft, beyond which sits an existing UK Power Networks electricity substation.

The site is bound to the north by Fisher Street, and to the east by the electricity substation, existing commercial floorspace and Proctor Street. The southern boundary of the proposed development site is adjacent to Catton Street and the main frontage of the proposed development site is Southampton Row.

4 Assessment Methodology

4.1 Scope of the EcIA

The scope of this EcIA includes:

- Data gathering of existing ecological information within and up to 2km from the site's boundaries from appropriate sources;
- Extended Phase 1 Habitat Survey of land within and adjacent to the site;
- Evaluation of the area of land within and adjacent to the site with regard to its nature conservation value;
- Identification of potential impacts on ecological features;
- Mitigation measures to minimise negative impacts and enhancement measures to increase the biodiversity value of the land within the site; and
- Assessment of the significance of potential ecological impacts from the proposals and where required the identification of appropriate mitigation measures.

4.2 Study area

The study area for the gathering of information during the desk study is defined as the site footprint (i.e. the current Crossrail offices and works) plus a 2km zone around its boundary. For the field survey, the site footprint (i.e. the current Crossrail offices and works) plus a 50m zone around its boundary is the defined study area (with the exception of a 500m zone for the purposes of great crested newts. The study areas are shown on **Appendix A, Figure 3**.

4.3 Characterising the existing environment

Ecological data of the study area was collected between November 2016 and April 2016. Data collected included a desk-based assessment and an EP1HS. A summary of all of the baseline ecological data obtained to date is provided in **Table 4.1**.

Table 4.1: Ecological baseline data sources

Data source	Date	Content
Extended Phase 1 Habitat Survey	November 2016	This survey followed Joint Nature Conservation Committee (JNCC, 2010) guidance which was extended to include a search for evidence of the presence of, or potential to support, notable and protected species in or adjacent to the site, as recommended by CIEEM.
Ecological Desk Study	April 2017	The Multi-Agency Geographic Information for the Countryside (MAGIC) website, Ordnance Survey (OS) maps and Google Earth aerial photographs were used to identify all statutory designated nature conservation sites and notable habitats (i.e. Ancient woodlands) within, and up to 2km from the site. Alongside this data search, a request was submitted to Greenspace in April 2016 for any records of protected species within a 2km search area of the site.

4.4 Impact assessment methodology

This EcIA has been undertaken with reference to current best practice and in particular the *Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland: Terrestrial, Freshwater and Coastal* (CIEEM, 2016).

Table 4.2 summarises the nature conservation value, or sensitivity, of an ecological feature and how it is determined within a defined geographic context.

Table 4.2: Sensitivity of an Ecological Receptor

	Sensitivity of ecological feature
Very High	Features of international importance (e.g. Special Area of Conservation (SAC), Special Protection Area (SPA), Ramsar sites, or species directly linked to the designation of these sites).
High	Features of national importance (e.g. National Nature Reserve (NNR), site of Special Scientific Interest (SSSI), protected species).
Medium	Features of regional importance (e.g. Environment Agency regional biodiversity indicators, important features in Natural England Natural Areas) or of county importance (e.g. Local Nature Reserve (LNR), County Wildlife site (CWS)).
Low	Habitats and species important within the district.
Negligible	Features of local (parish) importance or importance within the site and immediate environs only (e.g. ditches, hedgerows, ponds).

The assessment of the potential impacts of the proposed development needs to take into account both onsite impacts and those that may occur to adjacent and more distant ecological features. Impacts can be positive or negative. Negative impacts can include:

- Direct loss of wildlife habitats;
- Fragmentation and isolation of habitats;
- Disturbance to species from noise, light of other visual stimuli;
- Changes to key habitat features; and
- Changes to water quality and/or air quality.

Negative and positive impacts on nature conservation features have been characterised based on predicted changes as a result of the proposed works (as shown in **Table 4.3**). Magnitude also considers duration of effect, whether temporary or permanent and in order to characterise the impacts on each feature, the following parameters are taken account of:

Table 4.3: Magnitude of Effect

Magnitude	Definition examples
Major (Beneficial/Adverse)	Major impacts on the feature / population, which would have a sufficient effect to alter the nature of the feature in the short to long term and affect its long-term viability. For example, more than 20% habitat loss or damage.
Moderate (Beneficial/Adverse)	Impacts that are detectable in short and long-term, but which should not alter the long-term viability of the feature / population. For example, between 10 - 20% habitat loss or damage.
Minor (Beneficial/Adverse)	Minor impacts, either of sufficiently small-scale or of short duration to cause no long-term harm to the feature / population. For example, less than 10% habitat loss or damage.
Negligible	A potential impact that is not expected to affect the feature / population in any way, therefore no effects are predicted.
Neutral	No change

The assessment identifies those positive and negative impacts which would be 'significant', based on the value or sensitivity of the ecological feature and the magnitude of the impact. Impacts are unlikely to be significant where features of local value or sensitivity are subject to low magnitude or short-term impacts. However, where there are a number of low magnitude impacts that are not significant alone, cumulatively, these may result in an overall significant impact.

CIEEM (2016) provides definitions of significant effects which have been applied to this EcIA and included below.

"Significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution)." (CIEEM, 2016).

4.5 Field survey methodology

An EP1HS was undertaken by a Royal HaskoningDHV ecologist on 16th November 2016. The weather conditions were dry and cold.

The EP1HS followed the 'Extended Phase 1' methodology as set out in *Guidelines for Baseline Ecological Assessment* (Institute of Environmental Assessment, 1995). This method of survey provides information on the habitats in the survey area and assesses the potential for legally protected species to occur in or adjacent to the survey area. Habitats were recorded within the surveyed area using the system set out within the Joint Nature Conservation Committees' (JNCC) *Handbook for Phase 1 habitat survey: A technique for environmental audit* (2010).

The main habitats within the survey area were noted and mapped, and are shown on **Appendix A, Figure 3**. Target notes (TN) are used to provide details of characteristic habitats and species composition and highlight any features of ecological interest.

Preliminary investigations were undertaken in respect of the presence of legally protected species as follows:

- searching for suitable habitats for breeding populations of great crested newts within the survey area and up to 250m from its boundaries. Also searching for suitable terrestrial habitat within the survey area;
- searching for signs of badger activity including setts, tracks, snuffle holes and latrines within the survey area;
- searching for suitable habitat for water voles, otters and white clawed crayfish within any water bodies located within the survey area;
- searching for signs of potential roosting sites for bats, particularly within, buildings and mature trees within the survey area;
- searching for suitable habitats for common reptile species within areas of bare ground, debris piles, woodland and ecotones within the survey area;
- searching for signs of bird nests and identifying any suitable nesting habitats within structures and habitats within the survey area, for both common and Schedule 1 nesting bird species;
- searching for suitable habitat for any other protected species including dormice within the survey area; and
- the presence of invasive species. The list of invasive plant species included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) is extensive and these plants are found in a range of different habitats. The ecological constraints survey checked, in particular, for the presence of Japanese knotweed (Fallopia japonica), giant knotweed (Fallopia sachalinensis), hybrid knotweed (Fallopia x bohemica), giant hogweed (Heracleum mantegazzianum), Himalayan balsam (Impatiens glandulifera), rhododendron and cotoneaster spp.

Any suitable structures were categorised based on a four point scale for their potential to support roosting bats, in line with the Bat Conservation Trust's good practice guidelines (BCT, 2016):

- **Negligible potential** – no features present which could offer bats the opportunity to roost;

- **Low potential** – only minor crevices or cracks present considered to offer poor roosting spaces for bats;
- **Medium potential** – features present such as small cavities and gaps leading to small enclosed spaces, which offer some form of protection for either individual bats or small numbers of bats; or
- **High potential** – significant holes, cracks or crevices in roof or building structures, which are considered very suitable to be used by bats for roosting and could support large or important roosts such as maternity roosts.

5 Existing Environment

5.1 Statutory designated sites

The proposed development is not situated within a statutory designated site. The Camley Street Natural Park Local Nature Reserve (LNR) is located approximately 1.5km north west of the survey area. The LNR contains a range of habitats set within formerly vacant land and is primarily an educational resource that contains a field centre building with classrooms. The LNR consists of woodland, grassland and wetland providing a rich habitat for bats, birds, butterflies, amphibians and associated flora. It is not considered to be functionally connected to the area of proposed development. A map of statutory designated sites is provided in **Appendix A, Figure 1**.

5.2 Non-statutory designated sites

The proposed development is not situated within any non-statutory designated sites, however there are 45 non-statutory designated sites located within a 2km buffer of the proposed works. These sites include Sites of Importance for Nature Conservation (SINC). These sites are summarised in **Table 5.1** and can be seen on **Appendix A, Figure 2**.

Table 5.1: Non-statutory designated sites

Site Name	Proximity to Site	Designation
London's Canals	Approximately 2km north	SINC
River Thames & Tidal Tributaries	Approximately 1.6km south	SINC
Regent's Park	Approximately 2km north west	SINC
St James's Park, Green Park and Buckingham Palace Gardens	Approximately 2km south west	SINC
Marlborough House Garden	Approximately 1.7km south west	SINC
St Pancras Gardens	Approximately 1.7km miles north west	SINC
Temple Gardens	Approximately 1km south east	SINC
The Barbican and St Alphage's Gardens	Approximately 1.7km east	SINC
Claremont Square Reservoir	Approximately 1.4km north east	SINC
Culpeper Community Garden	Approximately 2km north east	SINC
Claremont Close Lawns	Approximately 1.5km north east	SINC
Charterhouse	Approximately 1.3km east	SINC
Park Square Gardens	Approximately 1.9km north west	SINC
Middle Temple Garden	Approximately 1km south east	SINC
Phoenix Garden	Approximately 1km south west	SINC

Site Name	Proximity to Site	Designation
Calthorpe Community Garden	Approximately 1km north east	SINC
St Andrew's Gardens	Approximately 900m north east	SINC
St George's Gardens	Approximately 800m north	SINC
St James's Garden	Approximately 1.6km north west	SINC
Russell Square	Approximately 500m north west	SINC
Lincoln's Inn Fields	Approximately 400m south east	SINC
Gordon Square	Approximately 1km north west	SINC
Coram's Fields	Approximately 700m north	SINC
St Paul's Cathedral Gardens	Approximately 1.6km south east	SINC
Cleary Gardens	Approximately 1.9km south east	SINC
Aldermanbury Gardens	Approximately 1.9km east	SINC
Roman Wall, Noble Street	Approximately 1.6km east	SINC
Spa Green Garden	Approximately 1.4km north east	SINC
St John's Gardens	Approximately 1km east	SINC
Lloyd Square	Approximately 1.2km north east	SINC
Wilmington Square	Approximately 1.1km north east	SINC
King Square Garden	Approximately 1.7km north east	SINC
Moreland Primary School Garden	Approximately 1.7km north east	SINC
St Luke's Churchyard, Old Street	Approximately 1.9km north east	SINC
Winton Primary School Garden	Approximately 1.5km north	SINC
Fortune Street Garden	Approximately 1.8km east	SINC
Redbrick Estate	Approximately 2km east	SINC
Skinner Street Open Space	Approximately 1km north east	SINC
Spa Field Gardens	Approximately 1km north east	SINC
Waterloo Millennium Green	Approximately 2km south	SINC
St James's Square	Approximately 1.6km south west	SINC
Victoria Embankment Gardens, Main Garden	Approximately 1km south	SINC
Victoria Embankment Gardens, Whitehall Garden	Approximately 1.4km south west	SINC
Victoria Embankment Gardens, Temple Section	Approximately 1km south east	SINC

5.3 Habitats

Habitats within the survey area were recorded and mapped during an Extended Phase 1 Habitat Survey, undertaken in November 2016. The key habitats noted comprise:

- hard standing;
- buildings, which includes a working Crossrail building site with associated plant and machinery;
- a small area of amenity grassland;

- scattered trees; and
- planted shrubberies within a manicured garden.

There are no BAP priority habitats located within the survey area. The nearest BAP priority habitat consists of several areas of Deciduous Woodland, the closest is located approximately 400m south east of the proposed development.

5.4 Species

5.4.1 Flora

The study area consists wholly of hardstanding, and at the time of the EP1HS was a working Crossrail building site. A small section of park sits within the north eastern section of the survey area, consisting of amenity grassland, scattered trees and planted shrubs. No legally protected flora species were noted at the time of the survey.

Within the desk study records obtained from Greenspace, several notable and protected flora species have been recorded within the wider 2km search area, but none within the survey area. As such they are not considered further within this report and therefore no further surveys and/or mitigation measures are required

5.4.2 Bats

All suitable buildings, structures and/or trees within the survey area were externally surveyed from the ground and using binoculars, for potential to support roosting bats.

All buildings within the survey area were assessed as having **negligible** potential for roosting bats, primarily due to a lack of visible cracks and/or crevices. The trees within the amenity grassland to the north east of the survey area were all semi mature with no visible roosting features available.

Records of several bat species were returned within the data from Greenspace, but none are located within the survey area.

5.4.3 Birds

As the EP1HS was conducted in November, outside of the optimal nesting bird season, no nesting birds were observed. Furthermore, no birds other than feral pigeons were observed during the EP1HS.

Several species of birds have been recorded in the wider 2km search area and up to 100m from the survey area.

5.4.4 Other species

No suitable habitat within the survey area is present for the following species, and as such they are not considered further within this report and therefore no further surveys and/or mitigation measures are required:

- Badger;
- Water vole;
- Otter;
- Dormice;
- White-clawed crayfish;

- Reptiles; and
- Great crested newt.

5.4.5 Invasive non-native species

No invasive non-native species were observed during the EP1HS. Records obtained from Greenspace indicate that several invasive non-native species have been recorded within the wider 2km search area but not within the site boundaries. As such, invasive species are not considered further within this report and therefore no further surveys and/or mitigation measures are required.

6 Impacts and Mitigation during Construction

6.1 Statutory designated sites

Given the distance of the statutory designated site from the proposed works (approximately 400m at its closest point) and the lack of any functional connectivity between the site boundaries and the statutory designated site, **no impact** is predicted during construction.

6.2 Habitats

The habitat types found within the site are considered to be of low ecological value, and no BAP habitat was noted during the survey, therefore **no impact** upon the habitats is predicted during construction

6.3 Species

Data retrieved from the desk study suggest that reports of both several species of bats and birds have been recorded within the 2km search buffer, but not within the survey area. Due to the lack of suitable features for both bats and nesting birds, **no impact** is predicted during construction

7 Impacts and Mitigation during Operation

7.1 Statutory designated sites

As the proposed development involves reuse of the current building alongside an extension covering the existing Crossrail building site, no changes in operational site activity is anticipated. Therefore **no impact** is predicted on the statutory designated site during operation.

7.2 Non-statutory designated sites

As the proposed development involves reuse of the current building alongside an extension covering the existing Crossrail building site, no changes in operational site activity is anticipated. Therefore **no impact** is predicted on the non-statutory designated sites during operation.

7.3 Habitats

The operational phase of the proposed works will result involve similar environmental conditions on site as prior to construction. As such, **no impact** upon habitats is predicted.

7.4 Species

Data retrieved from the desk study suggest that reports of both several species of bats and birds have been recorded within the 2km search buffer, but not within the survey area. Due to the lack of suitable features for both bats and nesting birds, **no impact** is predicted during operation.

8 Summary

An Extended Phase 1 Habitat Survey and desk study have been undertaken between November 2016 and February 2017 in order to inform this EcIA. **Section 5** of this report outlines the existing environment at the time of the field survey (November 2016), and concludes in **Sections 6** and **7**, that as there is a distinct lack of features present to support any protected species, there will be **no impact** during both construction and operation of the proposed development.

9 References

Bat Conservation Trust (2016). Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.

Chartered Institute of Ecology and Environmental Management (CIEEM) (2006). Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland: Terrestrial, Freshwater and Coastal. Second Edition, January 2016.

Institute of Ecology and Environmental Management (2012). Guidelines for Preliminary Ecological Assessment.

Joint Nature Conservation Committee (JNCC) (2010) Handbook for Phase 1 habitat survey – a technique for environmental audit.

Appendix A – Figures

Appendix B – Legislation

Species	Legislation	Offences	Licensing procedures and guidance (England)
Bats ***(European protected species (EPS))***	Conservation of Habitats and Species Regulations 2010 (as amended) Reg 41	Deliberately capture, injure or kill; deliberate disturb; deliberately take or destroy the eggs of; or damage or destroy a breeding site or resting place used by a European protected species. [The protection of bat roosts is considered to apply regardless of whether bats are present.]	A Natural England (NE) licence in respect of development is required in England. *European Protected Species: Mitigation Licensing- How to get a licence* (NE 2010) *Bat Mitigation Guidelines* (English Nature 2004) *Bat Workers Manual* (JNCC 2004)
	Wildlife and Countryside Act 1981 (as amended) S.9	Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb it in such a place.	Licence from NE is required for surveys (scientific purposes) that would involve disturbance of bats or entering a known or suspected roost site.
Water vole	Wildlife and Countryside Act 1981 (as amended).	Intentionally kills, injures or takes any wild animal. Intentionally or recklessly damage or destroys any structure or place which any named wild animal uses for shelter or protection, obstruct access to such a place, or, disturb an wild animal in such a place.	A licence is required from Natural England to 'displace' water voles i.e. to make their habitat unfavourable and encourage them to move away.
Otter	Conservation of Habitats and Species Regulations 2010 (as amended) Reg 41	Deliberately capture, injure or kill; deliberate disturb; deliberately take or destroy the eggs of; or damage or destroy a breeding site or resting place used by a European protected species.	Licences issued for development by Natural England. *European Protected Species: Mitigation Licensing- How to get a licence* (NE 2010)
	Wildlife and Countryside Act 1981 (as amended) S.9	Intentionally or recklessly obstruct access to any structure or place used for shelter or protection, disturb an wild animal in such a place.	
White-clawed crayfish	Wildlife and Countryside Act 1981 (as amended).	Intentionally kills, injures or takes any wild animal. Intentionally or recklessly damage or destroys any structure or place which any	

Species	Legislation	Offences	Licensing procedures and guidance (England)
		named wild animal uses for shelter or protection, obstruct access to such a place, or, disturb an wild animal in such a place.	
Badger	Protection of Badgers Act 1992	Wilfully kill, injure or take a badger; or intentionally or recklessly damage, destroy or obstruct access to a badger sett or disturb a badger in its sett. [It is not illegal to carry out disturbance activities in the vicinity of setts that are not occupied.]	Where required, licences for development activities involving disturbance or sett interference or closure are issued by Natural England (NE). Licences for activities involving watercourse maintenance, drainage works or flood defences are issued under a separate process. Licences are normally not granted from December to June inclusive because cubs may be present within setts. *Badgers & Development* (NE 2007)
Birds	Wildlife and Countryside Act 1981 (as amended) S.1	Intentionally kill, injure or take any wild bird; intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built; intentionally take or destroy the nest or eggs of any wild bird. [Special penalties are liable for these offences involving birds on Schedule 1 (e.g. most birds of prey, kingfisher, barn owl, black redstart, little ringed plover).] Intentionally or recklessly disturb a Schedule 1 species while it is building a nest or is in, on or near a nest containing eggs or young; intentionally or recklessly disturb dependent young of such a species.	No licences are available to disturb any birds in regard to development. Licences are available in certain circumstances to damage or destroy nests, but these only apply to the list of licensable activities in the Act and do not cover development. General licences are available in respect of 'pest species' but only for certain very specific purposes e.g. public health, public safety, air safety.
Natterjack toad **Sand lizard** **Smooth snake *(EPS)***	Conservation of Habitats and Species Regulations 2010 (as amended) Reg 41	Deliberately capture, injure or kill; deliberate disturb; deliberately take or destroy the eggs of; or damage or destroy a breeding site or resting place used by a European protected species.	Licences issued for development by Natural England. *European Protected Species: Mitigation Licensing- How to get a licence* (NE 2010)
	Wildlife and Countryside Act 1981 (as amended) S.9	Intentionally or recklessly obstruct access to any structure or place used for	A licence is required from Natural England for surveying and handling.

Species	Legislation	Offences	Licensing procedures and guidance (England)
		shelter or protection or disturb it in such a place.	
Adder **Common lizard** **Grass snake** **Slow worm**	Wildlife and Countryside Act 1981 S.9(1) (part); S.9(5)	Intentionally kill or injure any common reptile species.	No licence is required in England. However an assessment for the potential of a site to support reptiles should be undertaken prior to any development works which have potential to affect these animals.
Dormice *(EPS)*	Conservation of Habitats and Species Regulations 2010 (as amended) Reg 41	Deliberately capture, injure or kill; deliberate disturb; deliberately take or destroy the eggs of; or damage or destroy a breeding site or resting place used by a European protected species.	Licences issued for development by Natural England. *European Protected Species: Mitigation Licensing- How to get a licence* (NE 2010)
	Wildlife and Countryside Act 1981 (as amended) S.9	Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb it in such a place.	A licence is required from Natural England for surveying and handling.
***Invasive species (e.g.* flora species Japanese knotweed, hybrid knotweed, giant knotweed, giant hogweed, rhododendron, Himalayan balsam)**	Wildlife and Countryside Act 1981 S.14	It is illegal to plant or otherwise cause to grow in the wild these species.	Any contaminated soil or plant material is classified as controlled waste and should be disposed of in a suitably licensed landfill site, accompanied by appropriate Waste Transfer documentation, and must comply with section 34 of the Environmental Protection Act 1990. *The Knotweed Code of Practice* (Environment Agency 2006) *Managing Invasive Non-native Plants* (Environment Agency 2010) *Guidance on Section 14 of the Wildlife and Countryside Act, 1981* (Defra 2010)
Local Nature Reserves	National Parks and Access to the Countryside Act 1949	Protected under byelaws specific to each LNR	