

# Fusion, Sauchiehall Street Preliminary Ecological Appraisal



May 2023



## **CONTROL SHEET**

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## **EXECUTIVE SUMMARY**

EnviroCentre was commissioned by Fusion Glasgow Devco Ltd to undertake a Preliminary Ecological Appraisal for a proposed redevelopment site on Sauchiehall Street, Glasgow. The aim of the study was to provide a baseline ecological evaluation of the site to inform redevelopment works.

No Statutory Designated sites, Non-Statutory Designated sites, Ancient or Native Woodlands are located within influence of the site.

No Invasive Non-Native Species or Groundwater Dependant Terrestrial Ecosystems were identified on site or within the survey area.

One UKHAB habitat, Buildings, was identified within the site which is considered negligible in value.

The north aspect of the building contained two potential roost features (PRFs), via a gap behind a dislodged wooden board and loose roofing felt covering a window ledge on the 2<sup>nd</sup> storey. Both were assessed as offering low potential for roosting bats. It is therefore recommended that one bat activity survey of the building is conducted during the bat active season (May to August, inclusive) to inform the likely presence or absence of roosting bats on site and the need for any protected species licences from NatureScot.

The building provides opportunities for nesting birds due to the flat roof and birds were observed on the roof displaying nesting behaviour.

No suitable habitat or evidence of other protected species was identified during the survey. Therefore, only pre-works checks and/or annual updates for other species will be required. Ecological data is generally valid for a period of 12 months. If works on site do not commence prior to March 2024 or the site boundary changes, a survey to update the ecological baseline of the site is recommended.

Potential impacts caused by the development if proper mitigation is not implemented include:

- Death, injury, or disturbance to nesting birds utilising the site and/or adjacent habitats if works take place within nesting bird season.
- Death, injury, or disturbance to bats roosting within the PRFs on the building.
- The loss of potential bat roosting features due to redevelopment.
- Enhanced wildlife provisions via the installation of wildlife boxes.
- Planting, including new biodiverse green roof, ground level planters, and façade-bound green
  wall may provide biodiversity net gain and also enhance the sites suitability for foraging bats,
  foraging birds, and pollinators, where artificial lighting is minimal.

#### Mitigation measures include:

- Works should be scheduled to occur outside of the main nesting bird season (March to September inclusive). If this is not possible, a check of the building should be undertaken by an ecologist within 48 hours prior to works commencing.
- Temporary lights used during construction should be fitted with shades to prevent light spillage outside the working area.
- Any open pipes should be capped to prevent animals gaining access and pipe systems should be checked at the start of each working day.
- Any toxic building materials including chemicals must be stored away safely so that animals cannot access them.

Ecological enhancement measures to provide biodiversity gain have also been recommended.

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## 1 INTRODUCTION

#### 1.1 Terms of Reference

EnviroCentre Limited was commissioned by Fusion Glasgow Devco Ltd to undertake a Preliminary Ecological Appraisal (PEA) at a site referred to as 184 Sauchiehall Street in Glasgow.

The 'site' is defined as the area demarcated by the red line boundary as shown in Appendix A. The 'survey area' constitutes the area of the 'site' plus appropriate buffers.

The results and recommendations in this document relate to the site boundary as provided by the client at the time of the survey.

## 1.2 Scope of Report

The aim of the study is to provide a baseline ecological evaluation of the site to inform the redevelopment works. The objectives were as follows:

- Conduct a desk study to gather previously recorded biological data relating to the site;
- Categorise and map the broad habitats present on the site;
- Search for field evidence of a range of protected or notable species which may frequent the survey area;
- Identify suitable habitat for protected or notable species in the survey area;
- Evaluate the habitats and species applicable to site against geographic levels of importance;
- Appraise the potential impacts to habitats and species should no avoidance, mitigation or compensation be applied within the proposed project;
- Make recommendations for any further survey to inform the proposed project and/or species licensing requirements.
- Suggest broad measures to avoid, minimise and compensate for the predicted negative ecological effects associated with the proposed project; and
- Suggest opportunities offered by the proposed development to deliver biodiversity gain.

## 1.3 Site Description

The site is situated within the city centre of Glasgow, on Sauchiehall Street, at an elevation of approximately (approx.) 25m above sea level, centred at NS 57099 65979. The site consists of a four-storey building, a former commercial premises. The surrounding landscape consists predominantly of other commercial and residential buildings, sparse street tree planting with fragmented areas of greenspace such as Kelvingrove Park approx. 1km west and Cowlairs Park approx. 1.5km north. The River Clyde lies approx. 1km south of the site.

## 1.4 Project Description

The appraisal will inform the proposed redevelopment of the former commercial building into student accommodation with associated amenity space and infrastructure.

## 1.5 Legislation, Policy and Guidance

Legislation, planning policies, conservation initiatives and general guidance relevant to this study include:

- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019;
- The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended);
- Wildlife and Countryside Act 1981 (as amended, including by the Countryside and Rights of Way Act 2000);
- Natural Environment and Rural Communities (NERC) Act 2006;
- The Wildlife and Natural Environment (Scotland) Act 2011;
- The Water Framework Directive (2000/60/EC);
- The Nature Conservation (Scotland) Act 2004<sup>c</sup>
- National Planning Framework 4<sup>1</sup>;
- The Scottish Biodiversity Strategy (2004)<sup>2</sup>;
- Glasgow City Development Plan (LDP)<sup>3</sup>; and
- Glasgow City Biodiversity Action Plan (LBAP)<sup>4</sup>.
- Conservation (Natural Habitats &c.) Regulations 1994<sup>5</sup>

Further details regarding protected species legislation are provided in Appendix B.

## 1.6 Report Usage

The information and recommendations contained within this report have been prepared in the specific context stated above and should not be utilised in any other context without prior written permission from EnviroCentre Limited.

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<sup>&</sup>lt;sup>1</sup> https://www.gov.scot/publications/national-planning-framework-4/ (Accessed May 2023)

<sup>&</sup>lt;sup>2</sup> Scotland. Scottish Biodiversity Strategy 2004 (as amended) [online]. Available from: https://tinyurl.com/7uphk7ch

<sup>&</sup>lt;sup>3</sup> Available at: <a href="https://www.glasgow.gov.uk/CHttpHandler.ashx?id=35882&p=0">https://www.glasgow.gov.uk/CHttpHandler.ashx?id=35882&p=0</a> (Accessed March 2023)

<sup>&</sup>lt;sup>4</sup> Available at: CHttpHandler.ashx (glasgow.gov.uk) (Accessed March 2023)

<sup>&</sup>lt;sup>5</sup> Available at : https://www.legislation.gov.uk/uksi/1994/2716/contents/made

## 2 METHOD

## 2.1 Desk Study

To anticipate the potential ecological sensitivities at the site, a desk study was conducted, in March 2023 in advance of the field survey. The following sources were checked:

- NatureScot Sitelink website<sup>6</sup> for statutory designated<sup>7</sup> sites up to 5km from the site;
- Glasgow Museums Biological Records Centre (GMBRC) for records on non-statutory designated sites up to 2km of the site
- Records of ancient woodland and Scottish native woodland available through Scotland's Environment Web<sup>8</sup>, within or adjacent to the site;
- Glasgow Museums Biological Records Centre (GMBRC) for records on notable/ protected species and invasive non-native species data up to 2km of the site
- The Scottish Biodiversity List<sup>9</sup> for Priority Habitats and Species;
- Glasgow City LBAP for Local Priority Habitats and Species; and
- Aerial imagery from Google Earth<sup>10</sup>.

## 2.2 Field Survey

The survey was undertaken by EnviroCentre Ecologist Rebecca Brown, who is a Qualifying member of the Chartered Institute of Ecology and Environmental Management (QCIEEM). The surveys were designed using the guidelines endorsed by NatureScot and CIEEM<sup>11</sup>. The surveys focussed on plants and habitats on the site and those faunal species that are most likely to be found in the habitats which make up the landscape in and around the site. The survey was undertaken on 30/03/23 when conditions were dry and cloudy. The average air temperature was 10°C. All protected species were considered during the survey, however only those species considered relevant to the site, based on habitats/ evidence present are assessed in this report.

This section provides details of the methods adopted in the survey areas described in Table 2-1.

**Table 2-1 Survey Areas** 

Important Ecological Features	Survey/Assessment Area (where accessible)
UK Habitat Classification	Site
Ground Water Dependent Terrestrial Ecosystems (GWDTE)	Consideration of wetland habitats within a 250m radius of the site which could be impacted by works
Invasive Non-Native Species (INNS)	Site plus 50m buffer
Bats (Chiroptera sp.)	Site plus 50m buffer
Birds	Site plus 50m buffer

<sup>&</sup>lt;sup>6</sup> Available at: https://sitelink.nature.scot/map (Accessed March 2023)

<sup>&</sup>lt;sup>7</sup> Special Protection Areas (SPA), Special Areas of Conservation (SAC), Ramsar sites, Sites of and Special Scientific Interest (SSSI), National Nature Reserves (NNR), and Local Nature Reserves (LNR)

<sup>&</sup>lt;sup>8</sup> Available at: https://www.environment.gov.scot/maps/scotlands-environment-map/ (Accessed March 2023)

<sup>&</sup>lt;sup>9</sup> Available at: https://www.nature.scot/scottish-biodiversity-list (Accessed March 2023)

<sup>&</sup>lt;sup>10</sup> Available at: <a href="https://www.google.com/earth/">https://www.google.com/earth/</a> (Accessed March 2023)

<sup>&</sup>lt;sup>11</sup> CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal*. 2<sup>nd</sup> edition. available at: https://cieem.net/wp-content/uploads/2019/02/Guidelines-for-Preliminary-Ecological-Appraisal-Jan2018-1.pdf

#### 2.2.1 UKHAB Survey

A UK Habitat Classification (UKHab) Survey was carried out in accordance with the user manual<sup>1</sup>. UKHab is a hierarchical system for rapidly recording and classifying habitat via satellite imagery and field survey. The system comprises 5 levels of Primary Habitats which include ecosystems, broad habitats, priority habitats and Annex I habitats, along with non-hierarchical secondary codes which provide information on the environment, management, and origin of Primary Habitats. The secondary codes are also used to map habitat mosaics and identify notable species features. The information collected is used to identify ecologically sensitive features and recommend mitigation and enhancement measures in connection with a proposed development.

The surveyor utilised the UKHab Professional edition with a Minimum Mapping Unit (MMU) of 25m2 and aimed to categorise habitats up to level 5. Where the level 5 habitat could not be determined or is not reflective of the habitat type due to a lack of indicative species, habitats were categorised to level 4 or the broader level 3 habitat.

The information is used to identify ecologically sensitive features/habitats, inform relevant species surveys and, aid in the recommendation of mitigation and enhancement measures in connection with a proposed development.

Where applicable, alterations to UKHab symbology on maps may occur where relevant for clarity.

### 2.2.2 Groundwater Dependent Terrestrial Ecosystems

The Functional Wetland Typology<sup>12</sup> was used to aid identification of wetland habitats that derive their water from groundwater and surface water. This information is useful in identifying if and where further surveys are required to identify the presence and potential sensitivity of Groundwater Dependent Terrestrial Ecosystems (GWDTEs). To help assess ground water dependency, observations of local topography, underlying geology, and features such as springs, diffuse ground water emergence and floristic indicators of base enrichment were made.

### 2.2.3 Invasive Non-Native Species

The survey included a check for the presence of any invasive non-native species (INNS) including but not limited to the following:

- Japanese knotweed (Reynoutria japonica);
- Giant hogweed (Heracleum mantegazzianum); and
- Himalayan balsam (Impatiens glandulifera).

#### 2.2.4 Bats

An assessment was undertaken in accordance with the criteria set out by the Bat Conservation Trust (BCT)<sup>13</sup>. An internal and external inspection were undertaken of the buildings on the site. The suitability of roosting, commuting and foraging habitats was classified according to the criteria in Table 2-2 below.

<sup>&</sup>lt;sup>12</sup> SNIFFER (2009) WFD95: A Functional Wetland Typology for Scotland - Field Survey Manual. Version 1. ISBN: 978-1-906934-22-4

<sup>&</sup>lt;sup>13</sup> Collins, J.(ed.) (2016). Bat Surveys for professional Ecologists: Good Practice Guidelines, 3rd edition. Bat Conservation Trust

Table 2-2 Suitability Classification of Roosting, Commuting and Foraging Habitats for Bats

Suitability	Roosting Features	Foraging and Commuting Habitats
High	A structure one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edges.  High-quality habitat that is well connected to the wider landscape that is
		likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.
		The site is close to and connected to known roosts.
Moderate	A structure with one or more potential roost sites that could be used by bats due their size, shelter, protection, conditions and/or surrounding habitat but uplikely to support a roost of high	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.
	but unlikely to support a roost of high conservation status.	Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter,	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated.
	protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis	Suitable but isolated habitat that could be used by small numbers of foraging bats such as a lone tree or a patch of scrub.
Negligible	A structure with negligible features likely to be used by roosting bats.	Negligible habitat features likely to be used by foraging or commuting bats.

Potential Roosting Features (PRFs) in structures are listed in Table 2-3 below.

Table 2-3 PRFs in Structures Frequently Used by Bats for Roosting

	Table 2-3 Fixe 5 in Structures i requeitity Osed by Bats for Roosting				
Access points in structures	Frequently used roosting locations in structures				
frequently used as bat roosts					
in equentity asea as but roosts					
Gaps in windowsills and	Top of chimney breasts, gable ends and dividing walls				
windowpanes					
Underneath peeling paintwork or	All beams and roof beams (ridge, hip etc.)				
	All boarns and root boarns (riuge, riip etc.)				
lifted rendering					

Behind hanging tiles, Junction of timber joints, mortise and tenon joints

weatherboarding, eaves, soffit boxes, fascias and lead flashing

Under tiles and slates Behind purlins

Gaps in brickwork and stonework Between tiles/slates and the roof lining

#### 2.2.5 Birds

The roof areas and abitats within the survey area were assessed for their suitability to support breeding and over wintering birds. Observations of birds were noted during the survey.

#### 2.3 Constraints

#### 2.3.1 Desk Study

Desk studies are limited by the reliability of third-party information and the geographical availability of biological and/or ecological records and data. This emphasises the need to collate up-to-date, site-specific data based on field surveys by experienced surveyors. The absence of a species from biological records cannot be taken to represent actual absence. Species distribution patterns should be interpreted with caution as they may reflect survey/reporting effort rather than actual distribution.

#### 2.3.2 Field Survey

Due to the layout, some areas of the roof area were not physically accessible for close inspection for Preliminary Roost features or nesting birds.

## 2.4 Evaluation of Ecological Features

European, national and local governments and specialist organisations have together identified a large number of sites, habitats and species that provide the key focus for biodiversity conservation in the UK and Ireland, supported by policy and legislation. These provide an objective starting point for identifying the important ecological features that need to be considered. A geographical level of importance, as described in Appendices C and D, has been assigned to the designated sites, habitats and species identified on the site and in the survey area. Where a feature is important at more than one level in the table, its overriding importance is that of the highest level. Usually only the highest level of legal protection is listed.

## 3 BASELINE ECOLOGICAL CONDITIONS

## 3.1 Designated Sites

#### 3.1.1 Statutory Designated Sites

No statutory designated sites are present within the site boundary. One statutory designated site, Possil Marsh a Site of Special Scientific Interest (SSSI), lies approx. 3.6km north of the site. Possil Marsh is designated for its mesotrophic loch habitats and is of National importance. However, it is fragmented from the site by the M8 and is therefore considered not ecologically connected to the site.

## 3.1.2 Non-Statutory Designated Sites

No non-statutory designated sites are present within the site boundary. A total of five non-statutory designated sites are present within a 2km radius of the site and are presented in 3-1 below. No non-statutory designated sites are well ecologically connected to the site as they are fragmented by the city of Glasgow and the M8.

Table 3-1 Non- statutory designated sites

Site Name	Designation	Distance, Orientation and Ecological Connection to Site	Designated Features	Importance
River Clyde	SINC; CWLI	1km south; not ecologically connected	River habitats	County
Hamilton Hill Claypits	SINC; LNR	1.5km north; not ecologically connected	Woodland and canal habitats	County
The Necropolis	LSINC	1.7km east; not ecologically connected	Woodland and wildflower habitats	Local
Glasgow Branch	SINC; CWLI	1.9km north; not ecologically connected	River habitats	County
River Kelvin	SINC; CWLI	2km west; not ecologically connected	River habitats	County

#### 3.2 Ancient and Native Woodland

No Ancient or Native woodland sites are present within or directly adjacent to the site boundary. The nearest block of ancient woodland to the site is Long-Established (of Plantation Origin) (LEPO), located 1.9km northwest of the site. It is not considered to be ecologically connected to the site. The nearest block of native woodland to the site is 1.2km northeast and is not considered to be ecologically connected to the site.

#### 3.3 Habitats

The UKHab Habitat Map can be found in Appendix E and Photographs in Appendix F.

One UKHab primary habitat type was present within the site, as summarised in Table 3-2:

#### **Table 3-2 On Site Habitats**

Habitat Type	Habitat	Primary Code	Secondary Code
Urban	Buildings	u1b5	90 - Commercial building

#### 3.3.1 Buildings

A four-storey building comprises the entirety of the site (Photo 1). The majority of the building comprises of brick with roughcasting. The external walls of the first floor are covered with tiles. The building has a flat roof with concrete covering. The roof has multiple sets of metal stairs and some metal containers. The building is in poor condition with damp present throughout.

Buildings are not a priority habitat however can be of ecological importance as they may offer suitable shelter, nesting and roosting opportunities for birds,bats and insects and are therefore of site importance.

## 3.4 Groundwater Dependent Terrestrial Ecosystems

No GWDTE were identified on site or within the 250m consideration.

## 3.5 Invasive Non-Native Species

Records of Japanese knotweed, giant hogweed, Himalayan balsam, skunk cabbage (*Lysichiton americanus*) and Japanese rose (*Rosa rugosa*) were returned from the desk study. The nearest records to site were of Japanese knotweed approx. 1.4km west. However, no INNS were identified on site or within 50m of the site.

## 3.6 Faunal Species and Species Groups

The Protected Species Survey Results can be found in Appendix G and the Photographic Record in Appendix F.

#### 3.6.1 Disclaimer

Faunal species are transient and can move between favoured habitats regularly throughout and between years. This survey provides a snapshot of field signs present in the survey area in March 2023.

#### 3.6.2 Bats

Four records of common pipistrelle (*Pipistrellus* pipistrellus) were returned from the GMBRC desk study between 2014-2018, within 2km of the site, foraging in some of the green spaces amongst the city, such as Woodlands Community Garden.

#### **Buildings**

Two potential roost features (PRFs) were identified on the northern aspect of the building during the external inspection comprising gap behind a dislodged wooden board approx. 2.5m from the ground, above one of the shutters (Photo 2) and loose roofing felt covering a window ledge on the 2<sup>nd</sup> storey (Photo 3). With reference to Table 2-2 the features are considered to have low suitability for roosting

bats "A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis".

#### **Habitats**

The site and surrounding area are absent of any uninterrupted linear vegetated corridors suitable for bat commuting. There are scattered trees along XX STREET TO THE SOUTH, HOWEVER THERE WERE ABSENT OF ANY PRFS. There are some residential gardens approx. 200m northwest within and a small urban park area approx. 250m south-west represents the most accessible potential foraging habitat; however, these habitats are separated from the site via commercial and residential properties.

The presence of streetlights, security lights, and well-lit buildings on and around the site may limit the foraging and commuting suitability of the site and surrounding habitat. Although light tolerant bats such as pipistrelles (*Pipistrellus* spp.) may utilise habitats adjacent to the site for commuting.

Overall, some limited foraging and commuting habitat was available for light-tolerant bat species, within and surrounding the site, therefore the habitat was assessed as offering **low** suitability for commuting and foraging bats in reference to Table 3-2: "Isolated habitat that could be used by small numbers of foraging and/or commuting bats such as a fragmented hedgerow, un-vegetated stream, trees or scrub."

All UK bat species are European Protected Species (EPS) and are therefore of international importance.

#### 3.6.3 Birds

A total of 5,331 records of birds within a 2km radius of the site were returned from the GMBRC desk study. Records of birds which are considered relevant to the site are detailed in Table 3-3, below.

Table 3-3 GMBRC Bird Species within 2km of the Site

Species	Designation <sup>14</sup>
Lesser Black-backed Gull (Larus fuscus)	BOCC - Amber <sup>15</sup>
Common Gull (Canus)	BOCC – Amber,
Black-headed Gull (Chroicoephalus ridibundus)	BOCC – Amber, SBL
Common Tern (Sterna hirundo)	BOCC – Amber, SBL
Sandwich Tern (Thalasseus sandvicensis)	BOCC – Amber, SBL
Song Thrush (Turdus philomelos)	BOCC – Amber, SBL
Starling (Sturnus vulgaris)	BOCC – Red List
House Sparrow (Passer domesticus)	BOCC – Red List and SBL
Swift (Apus apus)	BOCC – Red List <sup>16</sup> , SBL and Glasgow LBAP
Herring Gull (Larus argentatus)	BOCC – Red, SBL

<sup>&</sup>lt;sup>14</sup> Birds of Conservation Concern information available at: <a href="https://www.bto.org/sites/default/files/publications/bocc-5-a5-4pp-single-pages.pdf">https://www.bto.org/sites/default/files/publications/bocc-5-a5-4pp-single-pages.pdf</a> (Accessed April 2023)

<sup>&</sup>lt;sup>15</sup> Amber-list criteria - Threatened in Europe, historical decline – recovery, moderate breeding population decline over 25 years/longer term, moderate non-breeding population decline over 25 years/longer term, moderate breeding range decline over 25 years/longer term, moderate non-breeding range decline over 25 years, breeding/non-breeding rarity, breeding/nonbreeding localisation, breeding/non-breeding international importance.

<sup>&</sup>lt;sup>16</sup> Red-list criteria - Globally threatened, historical decline in the breeding population, severe breeding population decline over 25 years/longer term, severe non-breeding population decline over 25 years/longer term, severe breeding range decline over 25 years/longer term, severe non-breeding range decline over 25 years.

During the survey, gulls were recoded commuting over the site. In addition, Herring Gulls were identified displaying nesting behaviour via territorial aggression and perching on the adjacent flat roofs. The building provides potential nesting opportunities for a range of bird species.

All wild bird species are protected under the Wildlife and Countryside Act 1981.

# 4 POTENTIAL IMPACTS, FURTHER SURVEY AND LICENSING

## 4.1 Potential Impacts

- Death, injury, or disturbance to nesting birds utilising the site and/or adjacent habitats if works take place within nesting bird season.
- Death, injury, or disturbance to bats roosting and within the PRFs on the building.
- The loss of potential bat roosting features due to the development of the new accommodation.
- Enhanced wildlife provisions via the installation of bird and bat boxes.
- Planting, including new biodiverse green roof, ground level planters, and façade-bound green wall may provide biodiversity net gain and enhance the sites suitability for foraging bats, foraging birds, and pollinators, where artificial lighting is minimal.

## 4.2 Additional Survey Work and Licensing

It is recommended that one bat activity survey of the building is conducted during the bat active season (May to August, inclusive) to inform the likely presence or absence of roosting bats on site.

Pre-works checks and/or annual updates will be required. Ecological data is generally valid for a period of 12 months. If works on site do not commence prior to March 2024 or the site boundary changes, a survey to update the ecological baseline of the site is recommended.

## 5 MITIGATION AND BIODIVERSITY GAINS

## 5.1 Mitigation

- Works should be scheduled to occur outside of the main nesting bird season (March to September inclusive). If this is not possible, a check of the building should be undertaken by an ecologist within 48 hours prior to works commencing. Active nests will be afforded protection until it has been confirmed the chicks have fledged.
- Temporary lights used during construction should be fitted with shades to prevent light spillage outside the working area.
- Any open pipes should be capped to prevent animals gaining access and pipe systems should be checked at the start of each working day.
- Any toxic building materials including chemicals must be stored away safely so that animals cannot access them.

## 5.2 Opportunities for Biodiversity Gain

The following enhancement measures in relation to protected species, and habitats are recommended:

- Native shrub species could be planted within planters around the site to provide seasonal foraging resources for a range of taxa. Suitable species include guelder rose (*Viburnum opulus*), hawthorn (*Crataegus monogyna*), spindle (*Euonymus europaeus*), and suitable native roses (*e.g.*, *Rosa canina*, *R. sherardii*, *R. mollis*).
- A biodiverse green roof system could be created over part of the new building. A *Sedum* monoculture should be avoided, instead using a seed mix containing only native Scottish species<sup>17</sup>. Information required to produce a biodiverse green roof is available in the British Flora Green Roof Brochure<sup>18</sup>.
- Native climbing species such as traveller's-joy (Clematis vitalba) and honeysuckle (Lonicera periclymenum) could be trained up fences, rails and walls to create facade-bound green wall on the eastern elevation of the new structure.
- A minimum of two bat boxes should be integrated or mounted on the final design to increase roosting provision:
  - Bat boxes that can be integrated into the new building include the Vivara Pro Build-In Bat Box<sup>19</sup>, Integrated Eco Bat Box<sup>20</sup> and Habitat Bat Boxes<sup>21</sup>.
- A minimum of two bird nest boxes should be mounted on the final design to increase nesting provision:
  - Nest boxes suitable for mounting on buildings include the 1SP Schwegler Sparrow Terrace<sup>22</sup> and Vivara Pro Starling Box<sup>23</sup>.
  - Nest boxes suitable for mounting on trees include the 2M Schwegler Nest Box<sup>24</sup>, Vivara Pro Seville WoodStone Nest Box<sup>25</sup> and Vivara Pro Barcelona WoodStone Open Nest Box<sup>26</sup>.

<sup>&</sup>lt;sup>17</sup> https://www.scotiaseeds.co.uk/shop/green-roof-mix/

<sup>&</sup>lt;sup>18</sup> Print (britishflora.co.uk)

<sup>19</sup> https://www.nhbs.com/vivara-pro-build-in-woodstone-bat-box

<sup>&</sup>lt;sup>20</sup> https://www.nhbs.com/integrated-eco-bat-box

<sup>&</sup>lt;sup>21</sup> http://www.habibat.co.uk/category/bat-boxes

<sup>&</sup>lt;sup>22</sup> https://www.nhbs.com/1sp-schwegler-sparrow-terrace

<sup>&</sup>lt;sup>23</sup> https://www.nhbs.com/vivara-pro-woodstone-starling-nest-box

<sup>&</sup>lt;sup>24</sup> https://www.nhbs.com/2m-schwegler-nest-box

<sup>&</sup>lt;sup>25</sup> https://www.nhbs.com/vivara-pro-seville-32mm-woodstone-nest-box

<sup>&</sup>lt;sup>26</sup> https://www.nhbs.com/vivara-pro-barcelona-woodstone-open-nest-box

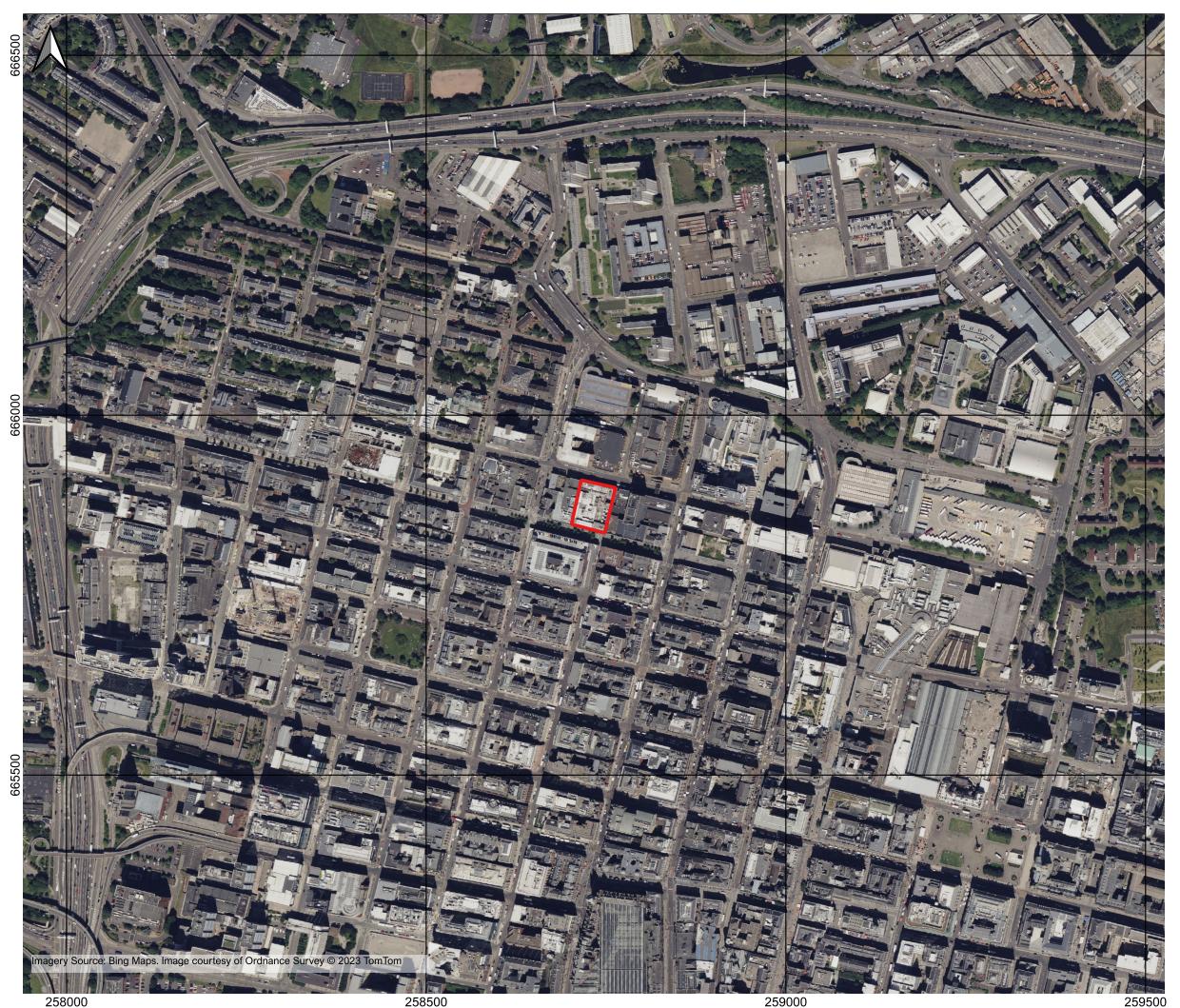
- All external lighting could be replaced with lights fitted with integrated passive infrared (PIR) sensors or timers to minimise lit time at night for the benefit of foraging bats and to save energy. Alternatively, the existing lights may be retrofitted with the above enhancements if replacement is not desired.
- An insect box could be mounted on the new building positioned in direct sunlight. Suitable models include the National Trust Apex Insect House<sup>27</sup> and CJ Wildlife Insect Tower<sup>28</sup>.

<sup>&</sup>lt;sup>27</sup> https://www.nhbs.com/national-trust-apex-insect-house

<sup>28</sup> https://www.nhbs.com/insect-tower

# **APPENDICES**

# A SITE LOCATION PLAN



Legend

Site Boundary

Do not scale this map

Client

JLL

Project

Fusion, Sauchiehall Street

Title

Site Location Plan

Status

DRAFT				
Drawing No.	Revision	Date		
177947-QGIS001	-	16 May 2023		
Drawn RB	Checked .IFP	Approved		

Scale 1:5,000 @ A3

Rev	Date	Amendment	Initials	
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## B SUMMARY OF PROTECTED SPECIES LEGISLATION

#### **European Protected Species (Bats)**

European Protected Species (EPS) are protected under the Conservation (Natural Habitats &c.) Regulations 1994 (the "Habitat Regulations") as amended. Under this legislation it is an offence to deliberately or recklessly:

- · capture, injure or kill such an animal;
- harass an animal or group of animals;
- disturb an animal while it is occupying a structure or place used for shelter or protection;
- disturb an animal while it is rearing or otherwise caring for its young;
- obstruct access to a breeding site or resting place, or otherwise deny an animal use of a breeding site or resting place;
- disturb an animal in a manner or in circumstances likely to significantly affect the local distribution or abundance of the species;
- disturb an animal in a manner or in circumstances likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young;
- disturb an animal while it is migrating or hibernating;
- · take or destroy its eggs; and
- possess, control, transport, sell or exchange specimens of any animal listed on Annex IV of the Habitats Directive. This applies to living or dead specimens and to their derivatives.

It is an offence of strict liability to damage or destroy a breeding site or resting place of such an animal. These sites and places are protected even when the animal isn't present. For example, great crested newt ponds are protected all of the time as long as it can be shown that the newts use the ponds some of the time.

A licence may be issued to permit the otherwise unlawful activities listed above if these three tests are satisfied:

- There must be a licensable purpose which includes 'preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;'
- There is 'no satisfactory alternative'; and
- The derogation (i.e. any permission/licence granted) is 'not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range'.

#### **General Breeding Birds**

All wild bird species in the UK are protected under the Wildlife and Countryside Act 1981 (as amended), with species listed on Schedules A1, 1 and 1A afforded additional protection.

For any wild bird species, it is an offence to intentionally or recklessly:

- kill, injure or take a bird;
- take, damage, destroy or interfere with a nest of any bird while it is in use or being built;
- · obstruct or prevent any bird from using its nest;
- take or destroy an egg of any bird;
- · possess or control a living or dead wild bird; and

• possess or control an egg of a wild bird (or any such derivatives).

For any wild bird species listed on Schedule 1, it's an offence to disturb:

- any bird while it is building a nest;
- any bird while it is in, on, or near a nest containing eggs or young;
- any bird while lekking; and
- the dependent young of any bird.

For any wild bird species listed on Schedule 1A, it's an offence to intentionally or recklessly harass any bird.

For any wild bird species listed on Schedule A1, it's an offence to intentionally or recklessly take, damage, destroy or interfere at any time with a nest habitually used by any bird.

Licences cannot be issued for the purpose of development in relation to any of the above offences.

#### **Invasive Non-Native Species (Plants)**

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to plant, or otherwise cause to grow, any plant in the wild at a location outside its native range.

'Native range' is defined in the 1981 Act as, "the locality to which the animal or plant of that type is indigenous, and does not refer to any locality to which that type of animal or plant has been imported (whether intentionally or otherwise) by any person."

The Scottish Governments Non-natives Code of Practice<sup>29</sup> defines 'in the wild'. Just about everywhere is wild except for:

- arable and horticultural land;
- improved pasture;
- settlements; and
- private and public gardens.

In exceptional circumstances it may be possible to obtain a licence from NatureScot to permit the above offence.

<sup>&</sup>lt;sup>29</sup> https://www.gov.scot/publications/non-native-species-code-practice/

## C Geographical Level of Importance of Ecological Features

Level of Importance	Sites	Habitats	Species
International	Designated, candidate or proposed Special Areas of Conservation, Special Protection Areas and Ramsar sites; UNESCO (Ecological) World Heritage Sites; UNESCO Biosphere Reserves; Biogenetic Reserves.	A viable area of habitat included in Annex I of the EC Habitats Directive; a habitat area that is critical for a part of the life cycle of an internationally important species.	A European Protected Species; an IUCN Red Data Book species that is globally Vulnerable, Endangered or Critically Endangered; a Category A internationally important bryophyte assemblage <sup>30</sup> .
National (UK)	Sites of Special Scientific Interest/Areas of Special Scientific Interest; National Nature Reserves; Nature Conservation Review Sites; Marine Conservation Zones (UK offshore).	An area of habitat fulfilling the criteria for designation as an SSSI/ASSI or MCZ; a habitat area that is critical for a part of the life cycle of a nationally important species.	An IUCN Red Data Book species that is Vulnerable, Endangered or Critically Endangered in the UK; a species that is Rare in the UK (<15 10km grid squares); a Schedule 5 (animal) or Schedule 8 (plant) species included in the Wildlife and Countryside Act 1981; any species protected under national (UK) legislation where there is the potential for a breach of the legislation; a Category A nationally important bryophyte assemblage <sup>31</sup> ; a species that is Vulnerable, Endangered or Critically Endangered in The Vascular Plant Red Data List for Great Britain <sup>32</sup> .
National	National Parks; Marine Protected Areas; Marine Consultation Areas.	Habitats of principal importance for biodiversity in the relevant countries <sup>33</sup> , including; Scottish Biodiversity List (SBL) Priority Habitats and Priority Marine Features (PMFs) <sup>34</sup> .	Species of principal importance for biodiversity in the relevant countries <sup>35</sup> , including; SBL Priority Species and PMFs.

<sup>&</sup>lt;sup>30</sup> Averis, A.B.G, Genney, D.R, Hodgetts, N.G, Rothero, G.P. & Bainbridge, I.P. 2012. Bryological assessment for hydroelectric schemes in the west highlands – 2<sup>nd</sup> edition. Scottish Natural Heritage Commissioned Report No. 449b

<sup>&</sup>lt;sup>31</sup> Averis, A.B.G, Genney, D.R, Hodgetts, N.G, Rothero, G.P. & Bainbridge, I.P. 2012. Bryological assessment for hydroelectric schemes in the west highlands – 2<sup>nd</sup> edition. Scottish Natural Heritage Commissioned Report No. 449b

<sup>&</sup>lt;sup>32</sup> Cheffings, C.M. & Farrell, L. (eds), Dines, T.D., Jones, R.A., Leach, S.J., McKean, D.R., Pearman, D.A., Preston, C.D., Rumsey, F.J., Taylor, I. (2005) *The Vascular Plant Red Data List for Great Britain. Species Status No. 7.* JNCC, Peterborough. Available at: <a href="https://hub.jncc.gov.uk/assets/cc1e96f8-b105-4dd0-bd87-4a4f60449907">https://hub.jncc.gov.uk/assets/cc1e96f8-b105-4dd0-bd87-4a4f60449907</a> (Accessed, April 2023)

<sup>&</sup>lt;sup>33</sup> These are all the habitats that were identified as requiring action in the UK Biodiversity Action Plan and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework, including any additions.

<sup>&</sup>lt;sup>34</sup> In July 2014, Scottish Ministers adopted a list of 81 priority marine features (PMFs) – many of which are features characteristic of the Scottish marine environment. Most are on other conservation status lists so may be valued higher than this.

<sup>&</sup>lt;sup>35</sup> These are all the species that were identified as requiring action in the UKBAP and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework, including any additions.

Level of Importance	Sites	Habitats	Species
Regional	Regional Parks.	Regional Local Biodiversity Action Plan habitats noted as requiring protection.	A species that is Nationally Scarce in the UK (present in 16-100 10km grid squares); a species that is included in the Regional LBAP; an assemblage of regionally scarce species.
County / Metropolitan	Woodland Trust Sites; Royal Society for the Protection of Birds Sites; Local Wildlife Sites.	County LBAP habitats noted as requiring protection; semi-natural, ancient woodland >0.25ha in extent.	A species that is included in the County LBAP; an assemblage of species that are scarce at the county level.
Local		Semi-natural, ancient woodland <0.25ha in extent; semi-natural habitats that are unique or important in the local area;.	Species as defined by Local Authority lists (if available).
Site		Common and widespread habitats not covered above.	Common and widespread species not covered above.
Negative			An Invasive Non-Native Species (INNS) as defined by the GB Non-Native Species Secretariat (NNSS) and supported by the GB Invasive Non-native Species Strategy (2015); legally controlled species under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended by the relevant country legislation).

# D GEOGRAPHICAL LEVEL OF IMPORTANCE OF ORNITHOLOGICAL FEATURES

Level of		Assessment Criteria	
Importance	Legal Protection	Conservation Status	Population Size
International	Any species within Annex 1 of the EU Birds Directive	Any species which is listed as Critically Endangered or Endangered on the IUCN Red List	Supporting greater than 1% of the EC population
National (UK)	Any species within Schedule 1 of the Wildlife and Countryside Act	Any species on the BoCC Red List	Supporting greater than 1% of the UK population
National (England)		Any species that is listed as Species of Principal Importance for Conservation;; any species on the BoCC Red List	Supporting greater than 5% of the English population
National (Scotland)		Any species on the Scottish Biodiversity List	Supporting greater than 5% of the Scottish population
National (Ireland & Northern Ireland)		Any species on the Birds of Conservation Concern in Ireland 2014-19 (BoCCI)	Supporting greater than 5% of the Irish population
National (Wales)		Any species in the Section 7 list of Species of Principal Importance for Conservation; Any species considered to be in decline in The State of Birds in Wales 2011 (SBW)	Supporting greater than 5% of the Welsh population
Regional		Any species on the BoCC Amber List	Supporting greater than 0.5% of the UK population
County		Any species that is listed as a Priority Species in the LBAP	Supporting greater than 0.05% of the UK population
Local		BoCC Green List; or species with no conservation concern; common and widespread throughout the UK	Supporting less than 0.05% of the UK population

## **E HABITATS PLAN**