

# **Preliminary Ecology Assessment**

# **Camden Highline (Phase 1)**



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# Contents

	Executive Summary	2
1	, Introduction	3
2	The site	3
3	Approach to assessment	4
4	Results of assessment	6
5	Site evaluation	11
6	Conclusions	11
7	Recommendations	11
8	Information for future phases	. 12

# Appendices

Appendix 1 - North London Line rail corridor map and citation	15
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# **Executive Summary**

This Preliminary Ecological Appraisal was undertaken to:

- identify any likely ecological constraints associated with the project;
- identify any mitigation measures likely to be required;
- identify if any additional surveys may be required; and
- identify the opportunities offered by the project to deliver ecological enhancement.

It shows that:

- the site is unlikely to support any legally protected species\* or priority species;
- the site does not contain any priority habitats;
- the site is not part of designated site;
- the site has low ecological value with respect to habitats and species on site, but it is part of a 'Strategic Wildlife Corridor' identified in the Camden Local Plan;
- the proposals are likely to result in overall ecological enhancement and improvement of people's access to nature.

\*although a precautionary survey of a potential bat roost site should be undertaken.

#### **Recommendations**

A dusk emergence/dawn re-entry survey for bats bat should be undertaken in the central arch one of the viaduct over Camden Gardens. This is to determine whether an existing feature (with a 'Low' probability of being a bat roost) is a roost and, if so, any mitigation necessary.

No further ecological surveys are required.

None of the existing vegetation needs to be safeguarded for nature conservation reasons. However, the structure of the habitats currently present should be replicated to maintain the function of the existing ecological corridor. This can be achieved by:

- diversifying the species and structural diversity of the existing habitats within the Phase 1 site;
- installing a small pool or water source, and nesting and roosting sites for birds, bats and invertebrates.

Clearance of existing vegetation should be undertaken outside of the bird breeding season which is Match – September inclusive.

Outside of the Phase 1 boundary, and delivered through future phases, the existing wildlife corridor formed by the rail corridor could be enhanced by:

- refreshing the planting within Camden Gardens;
- creating more diverse open mosaic habitats in areas currently dominated by a mix of common grasses and ruderal species.

# 1 Introduction

- 1.1 A Preliminary Ecological Assessment is a review of the ecological features present, or potentially present, within a site and its surrounding area. Its purpose is to:
  - identify any likely ecological constraints associated with a project<sup>1</sup>;
  - identify any mitigation measures likely to be required;
  - identify if any additional surveys may be required; and
  - identify the opportunities offered by a project to deliver ecological enhancement.
- 1.2 The assessment was undertaken by Peter Massini, Associate Technical Director, London Wildlife Trust Consultancy. He is a member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

## 2 The site

2.1 The site is located in the London Borough of Camden. It is part of the London Overground North London Line and it covers an area from Camden Gardens to the railway bridge of Camden Road. The location is shown in Figure 1 and the extent of the works for Phase 1 of the project is shown in Figure 2. The majority of the site is railway land, but it also includes the railway arches within Camden Gardens.



Fig.1 – site location

<sup>&</sup>lt;sup>1</sup> Such as the presence of, or proximity to: legally protected sites (such as Sites of Special Scientific Interest); legally protected species (such as bats or reptiles); non-statutory nature conservation sites identified in the Local Plan; habitats and species listed under Section 41 of the Natural Environment and Rural Communities Act 2006 (i.e. UK priority habitats and species) and ancient woodlands.

Fig.2 – proposed Phase 1 works



2.2 The proposal is to construct an elevated park and walking route with the intention of eventually connecting Camden Gardens to York Way, north of Kings Cross.

## 3 Approach to assessment

- 3.1 An initial desk-top review was undertaken to identify any existing or high priority ecological assets within 500m of the boundary of the site. A 500m search area (rather than the typical 1km search area) was considered appropriate due to the very urbanised location and the nature of the proposal, which is unlikely to have any adverse impact beyond the immediate site boundary.
- 3.2 Published data from the Camden Local Plan was used to identify important assets as examination of MAGIC the Defra website providing geographic information about the natural environment<sup>2</sup> revealed limited information due to the urban location. It was considered unnecessary to acquire biological records from Greenspace Information for Greater London<sup>3</sup> due to the location and limited likelihood of any protected or notable species being present.
- 3.3 The desk-top review revealed no legally protected nature conservation sites (e.g. Sites of Special Scientific Interest) within the 500m search area. However, four non-statutory Sites of Importance for Nature Conservation (SINCs) are within 500m. These are highlighted in Figure 3 and are:
  - Regent's Canal part of London's Canals Site of Metropolitan Importance, which lies 75m to the south at its nearest point;

<sup>&</sup>lt;sup>2</sup> https://magic.defra.gov.uk/

<sup>&</sup>lt;sup>3</sup> https://www.gigl.org.uk/

- North London Line rail corridor a Site of Borough Importance, which lies 150m to the east of the eastern end of the site;
- St Martins Gardens a Site of Local Importance, which lies 290m 450m to the south; and,
- Rochester Terrace Gardens a Site of Local Importance, which lies 300m to the north.

The most relevant of these sites to the Phase 1 works is the North London Line rail corridor. A more detailed map and citation for this site is included in Appendix 1.

[Note: SINCS are divided into Metropolitan, Borough and Local sites depending on their relative importance].

3.4 In addition, the railway land is part of a 'Strategic Wildlife Corridor' which includes a number of rail corridors across the borough, with the wildlife corridor along the North London Line running from Chalk Farm to the north of Kings Cross.



Fig.3 SINCS within 500m of both sites

3.5 A site visit was undertaken on 1<sup>st</sup> September 2021. The field survey involved an assessment of the Phase 1 site, plus land along the railway corridor to the east to determine role of the site to act as a wildlife corridor. The weather was overcast with a temperature c. 20° C. Images in this report were taken on the day of the site visit.

# 4 Results of assessment

#### Habitats on the Phase 1 site

4.1 The primary habitat within the elevated section of the Phase 1 site is an area of scrub that lies behind the platform of Camden Road station. This comprises a mix of sycamore *Acer pseudoplatanus* and buddleia *Buddleia davidii*, with occasional saplings of tree of heaven *Ailanthus altissima* and an 'understorey' of ivy *Hedera helix*, traveller's joy *Clematis vitalba* and Japanese honeysuckle *Lonicera japonica*. In areas where scrub has been cleared, to access switch-gear and cabling, the vegetation comprises false oat-grass *Arrhenatherum elatius*, herb robert *Geranium robertianum*, ribwort plantain *Plantago lanceolata*, and cat's ear *Hypochaeris radicata*. See images 1 and 2.

1. Scrub behind platform



2. Scrub and open area at end of platform



- 4.2 Between the scrub and the retaining wall that provides the boundary to small gardens of residential properties along Ivor Street there appears to be part of the flat roof of the station building below. This was inaccessible but aerial images show that it is partially vegetated, most likely with a mix of the ivy, traveller's joy and Japanese honeysuckle that forms the understorey of the scrub.
- 4.3 The remainder of the Phase 1 site comprises the bridge over Camden Road. This area is largely unvegetated other than with a few clumps of buddleia, saplings of tree of heaven and a clump of wisteria (*Wisteria sp.*) which is overgrowth from a neighbouring garden.

#### Habitats beyond the Phase 1 site

- 4.4 Habitats beyond the Phase 1 site were also assessed as the Phase 1 site is part of a 'Strategic Wildlife Corridor' and, consequently, the value of the habitats within the Phase 1 site are determine din part by the habitats within the corridor to the east and west.
- 4.5 To the east of the Camden Road rail bridge (beyond the Phase 1 boundary) the sycamore and buddleia scrub gives way to a mix of grass and ruderals. This is maintained free of scrub by the combination of regular cutting, plus a substrate comprised largely of free-draining ballast. Here the vegetation consists of plants typical of London rail-side including: purple toadflax *Linaria purpuraea*, ribbed melilot *Melilotus officinalis*, beaked hawks-beard *Crepis vesicaria*, common aster *Aster nova-belgii*, yellow toadflax *Linaria vulgaris*, perforate St John's wort *Hypericum perforatum*, bramble *Rubus fruticosus*, mugwort *Artemisia vulgaris*, bracken *Pteridium aquilinum*, and cup lichen *Cladonia spp*. Climbers such as wisteria *Wisteria floribunda* and Japanese honeysuckle are also present, albeit mostly as overgrowth from neighbouring gardens. See image 3.
- 4.6 Further east still, beyond the rail bridge over St Pancras Way, the grassland/ruderal habitat is flanked by a line of trees growing along the edge of the embankment. Trees present include: oak *Quercus robur*, holm oak *Quercus ilex*, sycamore, ash and rowan. See image 4.



3. Grassland and ruderal habitat (recently cut)

4. Grassland/ruderals and line of trees



4.7 To the west, Camden Gardens is typical of an inner London amenity space. It comprises small areas of mown amenity grass; a number of mature trees, including elm *Ulmus spp.*, lime *Tilia spp.*, ash *Fraxinus excelsior* and white willow *Salix alba*; semi-mature trees, including cherry *Prunus avium*, silver birch *Betula pendula*, and rowan *Sorbus aucuparia*, and newly planted Japanese zelkova *Zelkova serrata* and whitebeam *Sorbus aria*; ornamental shrubs, such as cherry laurel *Prunus laurocerasus* and Portuguese laurel *Prunus lusitanica*, and clump-forming perennials such as Pampas grass *Cortaderia selloana*. A number of planters are being used to grow a range of herbs and vegetables. Common ruderals such as fat hen *Chenopodium album*, groundsel *Senecio vulgaris*, and prickly sow thistle *Sonchus asper* occur throughout. See image 5.

5. Camden Gardens



#### Habitats in the surrounding area

- 4.8 The railway corridor and Camden Gardens sit within a very urbanised landscape. The majority of vegetation present consists of street trees mainly London plane *Platanus x hispanica* and ash *Fraxinus sp.* and small amenity green spaces and private gardens, mostly planted with typical garden plants. However, some of the new developments adjacent to the rail corridor have incorporated green roofs which, if they are biodiverse green roofs, are likely to include habitat which is similar to some of the more open habitats along the rail corridor.
- 4.9 The Regent's Canal Metropolitan SINC lies less than 100m to the south of the rail corridor. But where it runs through this part of Camden there is very limited ecological relationship between the canal and the railway corridor/Camden Gardens.

#### <u>Fauna</u>

- 4.10 Due to the over time of year and overcast weather there were very few species of bird and invertebrate recorded during the survey. Several field grasshopper *Chorthippus brunneus* were noted, along with small white butterfly *Pieris rapae* and honey bee *Apis mellifera*. Goldfinch *Carduelis carduelis*, blackbird *Turdus merula*, robin *Erithacus rubecula* and wren *Troglodytes troglodytes* were noted in neighbouring green spaces and gardens.
- 4.11 Despite the scarcity of birds, invertebrates and other fauna during the site visit, the habitats present are likely to support a range of insects, including common species of solitary bees such as red mason-bee *Osmia bicornis* and ashy mining-bee *Andrena cineraria*, and butterflies such as gatekeeper *Pyronia tithonus* and red admiral *Vanessa atalanta*. Foxes *Vulpes vulpes* are almost certainly present, and common species of bat such as pipistrelle bat *Pipistrellus pipistrellus* are likely to forage along the railway corridor and around the mature trees in Camden Gardens.

#### Protected species<sup>4</sup>

- 4.12 Although it is possible that common species of bat forage in and around the site, none of the trees in Camden Gardens or along the railway corridor had any obvious holes or crevices that would provide good roost sites for bats.
- 4.13 The façade of the viaduct over Camden Gardens did not appear to have any crevices or other features that would provide roosting opportunities for bats. See images 6 and 7. However, an elongated gap beneath one of the arches might provide a roosting opportunity. See image 7. Based on guidance provided by the Bat Conservation Trust this feature is considered to have 'Low' potential to provide a bat roost.
- 4.14 Although the habitat present along the railway corridor beyond the Phase 1 boundary is suitable for common lizard Zooteca vivipara, there have been only two records of this species in Camden since 2001<sup>5</sup> and, therefore, it is unlikely that there is a population of common lizard along this part of the rail corridor.

<sup>&</sup>lt;sup>4</sup> Certain species are protected by law under the provisions of the Wildlife and Countryside Act 1981, and other relevant legislation. Protected species include: all species of bats and reptiles, badgers, dormice, and birds - especially those, such as kingfisher and barn owl that are listed under Schedule 1 of the Act. Protected species are a material consideration in the planning process and so the effect of development on protected species will be considered by the planning authority when determining planning applications.

<sup>&</sup>lt;sup>5</sup> Priority Species Recorded in Camden. Available at https://camdenbiodiversitystrategy.commonplace.is/proposals/species

6. North facade of railway arches



7. South façade of railway arches



8. Gap beneath the central railway arch



# 5 Site evaluation

- 5.1 The habitats within the Phase 1 site are common and widespread along rail corridors and are of low intrinsic ecological value. The existing sycamore and buddleia scrub does create a small area of wooded habitat that provides some shelter and foraging opportunities for common species, and the buddleia is a good nectar source for butterflies and moths. However, these two species are ubiquitous and dominant along rail-sides in Camden and do not provide the variation in species and structure that would provide opportunities for a wider range of wildlife.
- 5.2 Nevertheless, the continuity and connectivity provided by this habitat is of value as it contributes to a wildlife corridor which provides an opportunity for a variety of species to use and exploit what would otherwise be a series of small, fragmented areas of habitat in isolated green spaces and small urban gardens.
- 5.3 The potential bat roost feature beneath the central railway arch will need to be investigated further if any of the proposed works are likely to block or illuminate this feature. However, as this feature is considered to have Low potential and if bats are present they are likely to be small numbers of common species, this is primarily a precautionary survey.

# 6 Conclusions

- 6.1 No further ecological surveys are required, other than a bat survey as detailed below.
- 6.2 No habitats on site require safeguarding for their intrinsic nature conservation value.

# 7 Recommendations for Phase 1

- 7.1 A dusk emergence and dawn re-entry survey of the central railway arch should be undertaken between May and August. If a bat roost is present a Bat Roost Mitigation Plan will need to be put in place.
- 7.2 To retain the wildlife corridor function of the Phase 1 site, the current structure of the habitat on site (i.e. scrubby woodland) should be replicated in order to maintain the existing wildlife corridor function and to recreate better quality foraging habitat for common species of birds and bats.
- 7.3 Subject to more detailed investigations with regard to the technical constraints regarding the establishment of new planting, the existing scrub habitat behind the platform at Camden Road station should be replaced with a mix of shrubs including native species, cultivars of native species, and ornamental shrubs bearing spring flowers and winter berries. Suitable species include rowan *Sorbus aucuparia*, elder *Sambucus nigra 'Black lace'*, Cornelian cherry *Cornus mas*, barberry *Berberis darwinii* 'Compacta', dogwood *Cornus sanguinea or C. racemosa* and spindle *Euonymus europaeus* 'Red Cascade'.
- 7.4 Important features often missing, or inadequate, in highly urbanised locations are sources of water and good quality nesting and roosting sites. Consequently, the Phase 1 design should

aim to include:

- a small wetland feature on the edge of the proposed new shrub/woodland habitat, ideally rain-fed by collecting run-off from an existing or new roof or canopy,
- a range of nesting and roosting sites for birds, bats and invertebrates. Within the Phase 1 area this should include: 3 hole-fronted nest-boxes for birds; 3 bricks for crevice-roosting bats, and 3 bee posts for solitary bees. See references in images below.





Bat roosting box

Bee posts





# 8 Information for future phases

- 8.1 The Phase 1 site forms part of a 'Strategic Wildlife Corridor' but it is not part of the Site of Importance for Nature Conservation along part of the railway corridor further to the east. This is because in part most of the habitats along the railway corridor are common and widespread railside habitats. The ecological value of the proposals for the Phase 1 site could be boosted by additional ecological enhancements of existing habitat to the east delivered through future phases of the Highline project.
- 8.2 The existing grassland and ruderal habitats to the east of Phase 1 comprise a range of species which provide, in an urban context, patches of moderately good habitat for a common range

of invertebrates. However, these areas are relatively species-poor, and the habitats are common and widespread. They could be enhanced by the inclusion of some additional substrates and/or planting that would create habitat akin to the UK priority habitat 'Open Mosaic Habitats on Previously Developed Land' which consists of a patchwork of bare or disturbed ground and stands of species-rich grassland and ruderals.

8.3 This type of habitat is frequently created on green roofs in London. Substrates for these habitats can be created from recycled aggregates or other suitable material such as ceramic waste mixed with an appropriate compost mix if necessary. Suitable plant species for creating this habitat type include: viper's bugloss *Echium vulgare*, bird's-foot trefoil *Lotus corniculatus*, biting stonecrop *Sedum acre*, wild marjoram *Origanum vulgare*, lady's bedstraw *Galium verum*, wild basil *Clinopodium vulgare*, and kidney vetch *Anthyllis vulneraria*. Patches of bare sand and occasional logs should also be included to provide a wider variety of niches. Ideally some of this habitat should be in the form of banks or mounds in order to maximise the micro-topography. See references in Figures 9 & 10.



9. Green roof with sand mounds in open mosaic habitat

10. Bank made from ceramic waste/crushed brick with timber to create additional habitat niche. Image taken prior to planting



8.4 Although not within the red-line boundary of this project, the works to enable access to the Highline from Camden Gardens provides an opportunity to refresh the planting in this space to establish some areas of wildlife-friendly shrubs and perennial planting to enhance or replace the existing rather tired and ecologically uninteresting shrub beds. New planting could include a range of native and ornamental species including: viburnum *Viburnum davidii*, dogwood *Cornus sanguinea*, tickseed *Coreopsis verticillate*, yarrow *Achillea millefolium*, red bistort *Persicaria amplexicaulis*, and Russian sage *Perovskia* 'Blue Spire'.

### **APPENDIX 1**

# **Citation and map of North London Line Borough SINC**

LB Camden SINC Review London Wildlife Trust September 2014

Site of Borough Grade II Importance for Nature Conservation				
Site Reference:	CaBII06			
Site Name:	North London Line at York Way			
Summary:	A small area of wildlife habitat along the railway line, left over from development of the King's Cross Goods Yard.			
Grid ref:	TQ 299 841			
Area (ha):	1.08			
Borough(s):	Camden			
Habitat(s):	Roughland, Ruderals, Scattered trees, Scrub, Semi-improved neutral grassland, Tall herbs			
Access:	No public access			
Ownership:	Network Rail			

#### Site Description:

This area is all that remains of the extensive 'wasteland' habitats of the former King's Cross Goods Yard, most of which has been redeveloped. The surviving habitat is still of importance in a borough context and links in with a larger area of trackside in Islington, known as Copenhagen Junction.

Much of the area is covered in scrub of butterfly bush (Buddleja davidii) and bramble with scattered trees of silver birch and sycamore although there are significant areas of semi-improved neutral grassland and roughland habitat supporting a variety of typical wasteland grasses and wildflowers including herb-robert (Geranium robertianum). This site is most likely very attractive to butterflies and other invertebrates. Railway safety and operational efficiency must, of course, be the primary concerns in managing railsides, but nature conservation should also be taken into account.

There is no public access to the linesides, but they can be seen from trains between Camden Road and Caledonian Road & Barnsbury.





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