



Viveash Close, Hayes

Preliminary Ecological Appraisal

Produced for General Food Trading Co. Ltd
By Applied Ecology Ltd

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APPLIED ECOLOGY LTD

Hillington Park Innovation Centre
1 Ainslie Road
Glasgow
G52 4RU

Tel: 0141 585 6378
Email: info@appliedecology.co.uk

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1 Introduction

Background

- 1.1 In December 2016, General Food Trading Co. Ltd commissioned Applied Ecology Ltd (AEL) to undertake an Extended Phase 1 Habitat Survey of land at Viveash Close, in Hayes, West London (“the Site”). A map showing the location of the Site is provided in **Figure 1.1**.
- 1.2 The surveys were required to inform development proposals within the study area.

Purpose of this report

- 1.3 This report provides details relating to an Preliminary Ecological Appraisal (PEA) of the Site. It includes a description of an Extended Phase 1 Habitat Survey undertaken in January 2017, and a summary of a desk study of relevant pre-existing biodiversity data records. It provides a summary of the Site’s biodiversity opportunities and constraints, and recommendations for further survey where these are considered relevant.

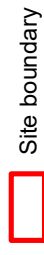
Report qualification

- 1.4 The survey described here was undertaken in accordance with the best practice methodologies current at the time of commissioning. Site circumstances, scientific knowledge or methodological requirements can change during the course of a project, and these external factors may impact on the scope of subsequent work requirements.
- 1.5 All survey work and reporting was undertaken by experienced and qualified ecologists in accordance with the Code of Professional Conduct of the Chartered Institute of Ecology and Environmental Management (CIEEM) and BS 42020:2013 (Biodiversity).
- 1.6 All ecological surveys have an expected validity period owing to the tendency of the natural environment to change over time. This validity period varies from receptor to receptor, and is also dependent on the degree of change in a site’s management and overall landscape ecology. Where the potential for change is considered to be relevant to this Site, this is highlighted in the appropriate section.
- 1.7 This report does not purport to provide detailed, specialist legal advice. Where legislation is referenced, the reader should consult the original legal text, and/or the advice of a qualified environmental lawyer.



Viveash Close PEA

Site Location



Site boundary

Figure 1.1

Map Scale @ A4: 1:10,000

Surveyed by:	n/a
Survey date:	n/a
Drawn by:	RC
Checked by:	GC
Status:	Final



2 Methodology

Desk study

Sites designed for nature conservation

- 2.1 Details of nearby statutory and non-statutory sites designated for nature conservation were obtained from Greenspace Information for Greater London (GiGL) and Natural England, and plotted in a Geographical Information System (GIS).

Pre-existing data records

- 2.2 Pre-existing data records were also requested from GiGL for the Site and a 2 km buffer surrounding it. Details of protected species and species/habitats of notable conservation value were requested.

Extended Phase 1 Habitat Survey

- 2.3 An Extended Phase 1 Habitat Survey was undertaken at the Site on 12 January 2017. The methodology adopted followed the standard JNCC approach to Phase 1 Habitat Survey (JNCC, 1993¹) by which all habitats present within the Site were classified and mapped according to standard categories. Target notes were used to describe areas of both typical and unique botanical character. Habitat patches were mapped as polygon features, and linear features (such as treelines, hedgerows and ditches) as lines. Point features were recorded where there were notable isolated trees or scrub. Plant species abundance was noted using the DAFOR² system.
- 2.4 The habitat map was subsequently digitised using GIS (ArcGIS).
- 2.5 The Phase 1 Habitat Survey was "extended" to include a search for evidence of the presence of or potential for protected species or species of nature conservation interest within and close to the Site. Such evidence included droppings, mammal tracks and footprints, shelters (or nests/roosts), hair caught on fence-wire and foraging signs, as well as an assessment of habitat suitability for such species.

Limitations

- 2.6 The habitat survey was carried out in January, well outwith the peak of the botanical flowering season. This would not be optimal in circumstances where there was a high likelihood of the presence of habitats of high nature conservation importance or the potential for rare plant species, which could only be identified during the summer months. However, the determination of key habitats can be undertaken by competent botanists at any time of year, and in the context of the habitat mosaic identified at the Site and the

¹ JNCC (1993) *Handbook for Phase 1 Habitat Survey – A technique for Environmental Audit*. JNCC, Peterborough.

² DAFOR: by which species occurrence may be classified as being **d**ominant, **a**bundant, **f**requent, **o**ccasional or **r**are. Rare in the context of a DAFOR score should not be confused with species rarity in the more widely accepted meaning of an unusual or notable find.



habitats potentially affected by the Development, these timings were not considered to be a significant limitation to the conclusions of the study. January is also a sub-optimal time of year for the identification of the signs of faunal species which either hibernate or are less active during the winter months, although again, an experienced surveyor can identify the potential for such species at any time of year.

- 2.7 In addition to these seasonal constraints, there was no access inside the building to allow a full assessment of the potential bat roost suitability of the Site.



3 Results

Desk study

Sites designated for nature conservation

- 3.1 A map showing the location of sites with statutory and non-statutory nature conservation designations within 2 km of the Site is provided in **Figure 3.1**. Sites are shown if any part of their boundary fell within 2 km of the Development.
- 3.2 There are no statutorily designated nature conservation sites such as Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs), National Nature Reserves (NNRs), Local Nature Reserves (LNRs) or Ramsar sites within 2 km of the Site.
- 3.3 The nearest non-statutory nature conservation site is London's Canals (Metropolitan Importance), which is 120 m to the north-west of the Site. London's Canals are mostly notified for their aquatic flora and fauna, but the canal within close proximity to Viveash Close is highly likely also to represent an important wildlife corridor for terrestrial species such as bats, birds and mammals, linking semi-natural habitats on a landscape scale.
- 3.4 The nearest non-statutory nature conservation site designated for its terrestrial habitats is Yeading Brook, Minet Country Park and Hitherbroom Park (Borough Grade I), which is 750 m to the north-west of the Site. The vast majority of the designated area of 68 ha is dominated by Minet Country Park. According to the citation provided by GiGL, the park was developed from derelict land. Habitats within the site include rough grassland, meadow, scrub, and wet to aquatic habitats. The site description includes several notable species of higher plants and invertebrates, as well as grass snake and smooth newt. The site supports a range of bird species, including notable species such as hobby and Dartford warbler.

Pre-existing data records

- 3.5 3433 records covering 492 species were supplied by GiGL. However, none of these were located within the Site. Records supplied included:
 - 244 higher plant species;
 - 133 invertebrate species;
 - 69 bird species, but no notable species records within close proximity to the Site;
 - two amphibian species (common frog and common toad) and two reptile species (slow-worm and grass snake);
 - three species of mammal excluding bats (hedgehog, water vole and the invasive non-native American mink),
 - six species of bats;



- 30 non-native species records listed by the London Invasive Species Initiative (LISI)³, including a record for giant hogweed *Heracleum mantegazzianum*.

3.6 None of the species for which records were supplied were considered significant in terms of their relevance to the potential nature conservation value of the Site at Viveash Close. A large proportion of the records were in relation to Yeading Brook, Minet Country Park and Hitherbroom Park.

Habitats

- 3.7 A Phase 1 Habitat Map for the Site is shown in **Figure 3.2**, and a selection of photographs illustrating the main habitats present is given in **Figure 3.3**. Summaries of the habitat types recorded within the Site boundary and their areas are provided in **Table 3.1** and **Table 3.2**.
- 3.8 The Site was dominated by a building with brick walls and metal cladding. A hard standing area comprised the majority of the remaining study area, with occasional scattered plants including common ruderal species such as butterfly bush *Buddleja davidii* (seedlings), groundsel *Senecio vulgaris*, a geranium *Geranium sp.*, greater plantain *Plantago major*, ribwort plantain *P. lanceolata*, annual meadow-grass *Poa annua*, red dead nettle *Lamium purpureum* and nipplewort *Lapsana communis*. The greatest vegetation cover was in the north-west corner of the Site; little or no vegetation was present elsewhere within the hard standing.
- 3.9 A dense growth of butterfly bush, around 8 m high, had colonised between the building and a palisade fence on the Site's northern boundary. This dense stand of introduced shrub had no understory plants.
- 3.10 A thin strip of ephemeral/short perennial vegetation bordered a brick wall with common ruderal species such as common chickweed *Stellaria media*, groundsel, dandelion *Taraxacum* agg., geraniums and annual meadow-grass.
- 3.11 Outside of the boundary to the north-western edge of car park was a patch of ephemeral/short perennial vegetation. This supported abundant annual meadow-grass, and occasional common bent *Agrostis capillaris*, common nettle *Urtica dioica*, bramble *Rubus fruticosus* agg. and creeping thistle *Cirsium arvense*.
- 3.12 Two sycamore *Acer pseudoplatanus* trees were present within the stand of introduced shrubs to the north of the Site. Further trees were present to the south-east of the building, outside the Site boundary.

Table 3.1: Summary of habitat types recorded.

Habitat type	Area (m ²)	% of study area
Buildings	1799	75.7
Bare ground	347	14.6
Introduced shrubs	219	9.2
Ephemeral/short perennial	12	0.5
Total	2376	100

³ The LISI list names non-native species present in London and causing impacts for which action, monitoring or research is needed.



Linear features

- 3.13 A 'W' section palisade security fence bounded the northern and eastern edge of the site. A hedge of blackthorn *Prunus spinosa*, with an understorey of common nettle and bramble, was present to the north-west of the Site boundary.

Table 3.2: Summary of linear features recorded.

Linear feature	Length (m)
Fence	92
Defunct hedge with fence	14
Total	106

Faunal species (other than bats)

- 3.14 No sightings or signs of any protected species were noted.
- 3.15 There were no suitable habitats for, nor any signs of, badger, and no aquatic habitat in the near vicinity suitable for water vole, otter, or for breeding amphibians.
- 3.16 No suitable habitat was present for reptiles, and no records of reptile species closer than 1 km to the Site were identified during the desk study.
- 3.17 The Site had few habitats of value to feeding birds, although the butterfly bush stand may provide seeds for species such as goldfinch, and the blackthorn hedge could provide berries for species such as blackbird and robin. There were few features likely to be of use to nesting birds, although the dense undergrowth of the butterfly bush stand, with undisturbed wooden pallets and stone blocks, could provide opportunities for species such as wren and robin. Birds may also nest on the building itself, or in the blackthorn hedge.

Bats

- 3.18 This was not a dedicated preliminary bat roost assessment, but the building was the only feature with any potential for bats within the Site. No access inside the building was possible, but potential egress points were noted. These included on the east side of the building where a door had been removed from its frame, and a small gap between the roof and the gable end at the north-west of the building (although this latter point was through metal cladding).
- 3.19 The doorway at the east side of the building could not be accessed by the surveyor. It was noted that the building was a working warehouse, and the level of disturbance (e.g. light and noise) within the building may affect its ability to support roosting bats. However, this could not be confirmed without formal inspection. None of the trees identified during the survey had features with bat roost potential.



Viveash Close PEA

Designated Sites

- Site boundary
- 2km buffer of site

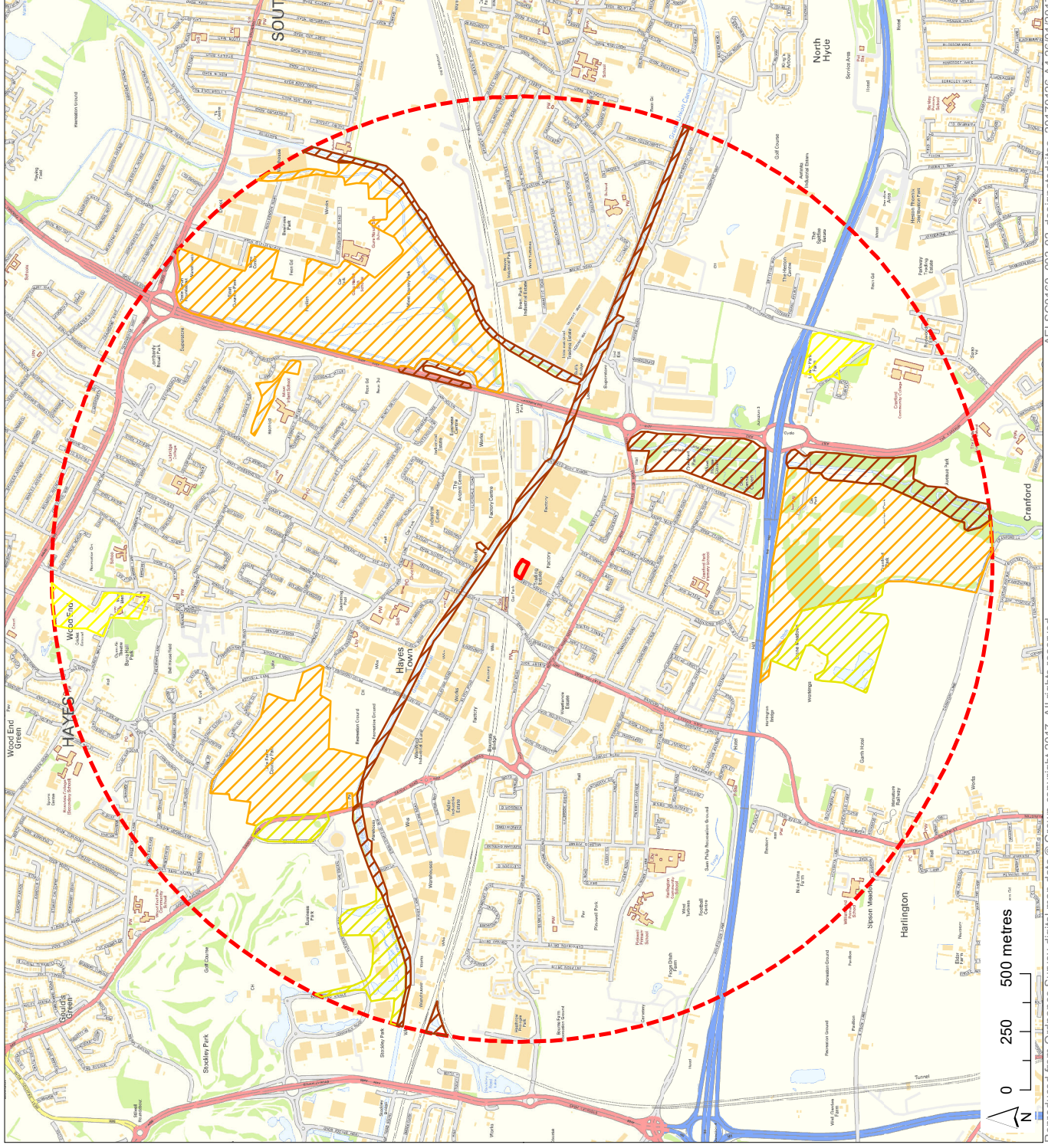
Non-statutory sites:

- Sites of Metropolitan Importance
- Site of Borough Importance (Gr 1)
- Site of Borough Importance (Gr 2)
- Sites of Local Importance

Figure 3.1

Map Scale @ A4: 1:25,000

Surveyed by: n/a
Survey date: n/a
Drawn by: RC
Checked by: GC
Status: Final



Viveash Close PEA

Phase 1 Habitat Map

 Site boundary

Habitats:

 individual tree (indicative location)

 defunct hedge with fence

 fence

 buildings

 bare ground

 introduced shrubs

 ephemeral/short perennial

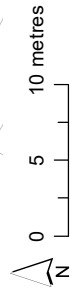
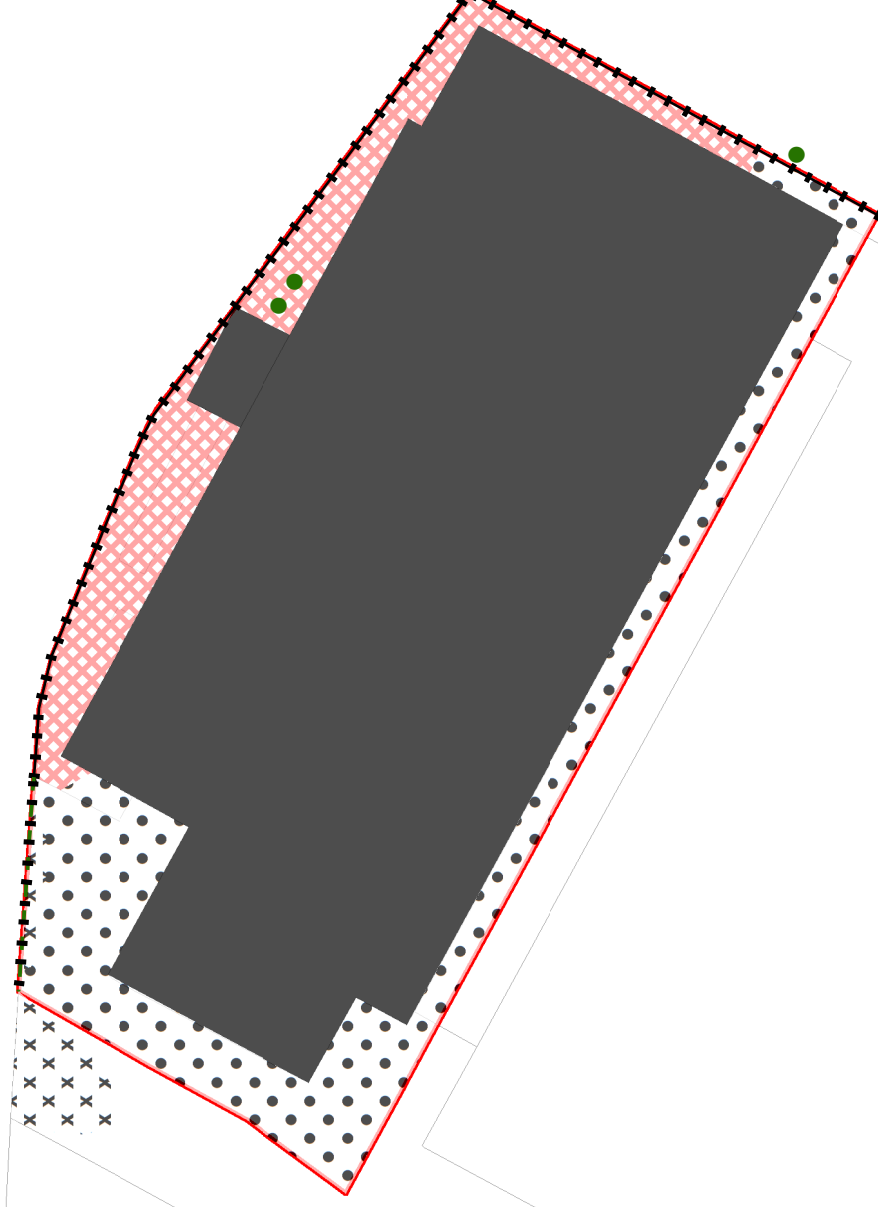


Figure 3.2

Map Scale @ A4: 1:500

Surveyed by: GC

Survey date: 12 January 2017

Drawn by: RC

Checked by: GC

Status: Final



Figure 3.3: Selection of habitat survey photographs.



(a) Blackthorn hedge on top of 1 metre high brick wall against a metal palisade fence. The habitat provides nesting opportunities for birds.



(b) Dense stand of butterfly bush between the building and the palisade fence. The habitat provides nesting opportunities for birds.



(c) Rear of building (east side), a door has been removed from its frame. This presents a possible entry/exit point for bats.



(d) Small gap between roof and gable end at north-west of building. This presents a possible entry/exit point for bats, depending on the material composition of the structure internally.



4 Discussion and Recommendations

Sites designated for nature conservation

- 4.1 The Site at Viveash Close is currently developed in nature and is at some distance from any sites designated for nature conservation. It is considered highly unlikely therefore that the Development would impact directly or indirectly on any such sites.

Habitats

- 4.2 The Site was comprised of habitats of negligible ecological value that do not present any constraints to development. The Site itself was highly constrained, significantly limiting opportunities for habitat enhancement, with the main opportunities being represented by the proposals' potential to incorporate a living roof. This feature could be combined with the installation of PV panels on the roof of the building. A planted green-roof should seek to maximise its use of native species, and be subject to an appropriate management regime. Other areas of soft landscaping should also aim to use native species wherever practicable.

Non-native invasive species

- 4.3 The stand of butterfly bush was the only non-native invasive species noted on Site. The species is classified by LISI as a level 5 species, that is, a species “...for which insufficient data or evidence was available from those present to be able to prioritise”. The species is **not** listed on Schedule 9, Part II of the Wildlife and Countryside Act 1981 and therefore mitigation measures to control its spread is not a legal requirement. Although the species provides opportunities for insects, mammals and birds, dense stands out complete native flora, although this is not perceived to be a notable issue at the Site given its lack of semi-natural habitats. Issues with buddleja can arise from the ability of the plant to cause structural damage to buildings. In addition, the seeds of butterfly bush can persist for several years, and seed rain from individuals adjacent to the Site would make eradicating this species from the Site unlikely without a coordinated eradication programme.

Bats

Legislation

- 4.4 All British bats are European Protected Species, protected in England by the Wildlife and Countryside Act (1981, as amended), the Countryside and Rights of Way Act (2000), the Natural Environment and Rural Communities Act (NERC, 2006) and by the Conservation of Habitats and Species Regulations (2010). This legislation makes it an offence to:
- deliberately capture, injure or kill a bat,
 - intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats,



- damage or destroy a bat roosting place (even if bats are not occupying the roost at the time).

- 4.5 Each of these actions is considered to be an offence whether the action is deliberate or reckless, except in the case of damaging or destroying a breeding site or resting place which is a strict liability offence. A licence is required for all developments which will affect areas known to contain bat roosts.
- 4.6 A bat roost is defined as any structure or place which is used for shelter or protection, irrespective of whether or not bats are resident. Buildings and trees may be used by bats for a number of different purposes throughout the year including resting, sleeping, breeding, raising young and hibernating. Use depends on bat age, sex, condition and species as well as the external factors of season and weather conditions. A roost used during one season is therefore protected throughout the year and any proposed works that may result in disturbance to bats, or loss, obstruction of or damage to a roost are licensable.

Bat roost potential at Viveash Close

- 4.7 This was not a formal assessment of bat roosting suitability, and the building could not be accessed internally, to determine its potential in full. Due to the limitations surrounding access to this building, the timing of this PEA, the open access and the location in close proximity to the River Crane (which leads to commuting routes to parkland to the east), a formal bat roost assessment is recommended. This assessment should include access to the internal space beyond the doorway at the east side of the building.
- 4.8 If evidence of bats or potential for bats is found during the assessment, bat activity surveys may be needed. Recommendations may also be made regarding the provision of enhancement measures for bats, such as bat boxes and directional lightings schemes.
- 4.9 It is considered likely that safe access to carry out a roost appraisal for bats may not be possible in advance of the start of site clearance. If this is the case, then potential issues pertaining to bats will need to be closed-out prior to the start of works on the actual fabric of the existing building, as soon as safe access can be guaranteed.

Other protected species issues

Breeding birds

- 4.10 All wild birds in the UK, their nests and their eggs are protected by the Wildlife and Countryside Act (1981), as amended by the Countryside and Rights of Way Act (2000). Under this legislation, it is an offence, with certain exceptions, to:
- intentionally kill, injure or take any wild bird;
 - intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built;
 - intentionally take or destroy the egg of any wild bird;



- intentionally or recklessly disturb any wild bird listed on Schedule 1⁴ while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

4.11 A number of bird species have been highlighted as priorities for bird conservation in the UK (Eaton *et al.*, 2015⁵), and allocated Red or Amber status. All other species not of conservation concern are considered to be Green-listed. Certain bird species also have additional protection under the terms of the EC Birds Directive, and may be local priorities for conservation action via Local Biodiversity Action Plans (LBAPs).

Recommendations

- 4.12 It is considered unlikely that the breeding bird interest within the proposed areas of development is of conservation significance. Therefore, the legislation relating to the nesting birds on the Site will only be applicable within the bird breeding season⁶. Any works involving the removal of habitats where nesting birds may be present (including trees and buildings) should be executed outside of the breeding bird season.
- 4.13 If works cannot be scheduled so as to avoid the nesting bird season, buildings, trees and/or shrubs will need to be inspected by a suitably qualified ecologist in advance of the works, to ensure that no breeding birds are present. If nesting is noted or suspected, works will need to cease until it has been ascertained that all fledglings have hatched and have left the nest. The time required for this varies between bird species.
- 4.14 As the Site is highly constrained, opportunities for enhancement for birds are significantly limited. However, installation of an appropriate green-roof (see above) would increase invertebrate diversity locally, which may provide enhanced foraging opportunities for certain bird species.

⁴ <http://www.legislation.gov.uk/ukpga/1981/69/schedule/1>

⁵ Eaton, M., Aebischer, N., Brown, A., Hearn, R., Lock, L., Musgrove, A., Noble, D., Stroud, D. and Gregory, R. (2015) Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man *British Birds* 108, pp708–746.

⁶ The breeding bird season is usually considered to be mid-March through to the end of July, although some species can start to nest earlier than this, and some continue later. In all cases timings are dependent on the prevailing weather conditions each spring. Advice should be sought from a Suitably Qualified Ecologist.



5 Conclusions

- 5.1 A Preliminary Ecological Appraisal of land and buildings at Viveash Close, Hayes was undertaken in January 2017.
- 5.2 The habitats present were considered to be of low ecological value and did not represent any significant development constraints.
- 5.3 With the exception of birds and bats, no evidence of habitats suitable for any protected species were noted during the survey.
- 5.4 No signs of bats were recorded, although a bat roost appraisal will be required to assess the suitability of the building for bats at a time when safe access can be guaranteed.
- 5.5 Suitable bird nesting habitat was identified in a stand of introduced shrubs and a hedge. Any vegetation removal here should be conducted at a time of year when nesting birds will not be disturbed, or following inspection by a suitably qualified ecologist in advance of the works.
- 5.6 A stand of introduced shrubs comprising of butterfly bush was noted. This species is listed on the London Invasive Species Initiative. Efforts to remove this species should be considered.
- 5.7 Although the Site is highly constrained, recommendations have been made regarding biodiversity enhancement measures which could be incorporated into the Development, including the use of native species in landscaping schemes, and the installation of a living roof. Although these are not needed to ameliorate any likely significant ecological impacts, they are considered relevant in the context of the London BAP, as well as promoting best practice.



Appendix A

Target notes



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Target note	Description
1	Hard standing (car park) with occasional plants scattered around. (DAFOR) Rare: Young butterfly bush, groundsel, geranium, greater plantain, ribwort plantain, annual meadow-grass, red dead nettle, nipplewort.
2	Blackthorn hedge, on top of 3 ft brick wall against metal palisade fence. Understory of occasional common nettle and Rare bramble.
3	Ephemeral. At north-west edge of car park. A - annual meadow-grass, common bent. O - common nettle, bramble, creeping thistle.
4	Ephemeral/ short perennial. Small area roughly 3 m x 1/2 m, against brick wall. A - common chickweed. O - groundsel, dandelion, geranium, annual meadow-grass, cleavers.
5	Dense butterfly bush between building and palisade fence on site boundary. Around 8 m high, no discernible understory. Unable to get access beyond butterfly bush. Two deciduous trees spotted further in but unable to get close to ID, appears to be sycamore from a distance. Appear to not be of a size suitable for bats.
6	Same dense butterfly bush as TN 5. No access beyond. Deciduous trees on east side of fence (outside of site boundary). Do not appear suitable for bats.
7	Hard standing, no scattered plants, appears to be in constant industrial use.
8	Bat potential of building. Majority of building is brick with metal cladding, low potential. Rear of building (east side of building) is brick without metal cladding a door has been removed from its frame. Could not get access inside but no signs of bats (droppings) were visible in the doorway. Small gap between roof and gable end at north-west of building. No signs of bats but large enough for bats to fit through. The building is a working warehouse, and may be subject to disturbance.



