

Land at Albert Road, New Barnet (1005826)

Updated Ecological Appraisal

June 2021

| Quality Management | |
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Executive Summary

- i) **Introduction.** Aspect Ecology has been commissioned by Citystyle Fairview VQ LLP to undertake an Ecological Appraisal in respect of proposed redevelopment of land formerly known as British Gas Works, Albert Road, New Barnet.
- ii) **Proposals.** The proposals are for redevelopment of the site to provide new residential units, retail/commercial space and community space and associated parking, landscaping and facilities.
- iii) **Survey.** The site was previously surveyed by others during 2014 and 2016, including specific surveys in regard to bats. Aspect Ecology Ltd initially surveyed the site during January 2020, based on standard extended Phase 1 methodology. A general appraisal of faunal species was undertaken to record the potential presence of any protected, rare or notable species. Further surveys undertaken during October 2020 to May 2021, including specific survey work in regard to roosting bats.
- iv) **Ecological Designations.** The site itself is not subject to any statutory or non-statutory ecological designations. The nearest statutory designation is Covert Way LNR, located approximately 0.7km north of the site. The nearest non-statutory designation is Pymme's Brook Site of Borough Importance, Grade II, located approximately 0.4km east of the site. All of the ecological designations in the surrounding area are physically well separated from the site and are therefore unlikely to be adversely affected by the proposals.
- v) **Habitats.** The vast majority of the site is currently occupied by recently cleared, bare recolonising ground and hardstanding in line with the previous permitted information, with other habitats including buildings, trees and scrub. The majority of the habitats present are considered to be of negligible to low ecological value and as such any losses of such habitats would be of little ecological importance and would be suitable compensated by new landscape planting incorporating native species.
- vi) **Protected Species.** The site offers extremely limited opportunities for protected species and no evidence of any such species was recorded during the survey work, albeit a small number of buildings are present which could offer some low potential for bats, whilst it is possible that common birds nest within minor vegetation present. Accordingly, appropriate mitigation measures and recommendations are set out in order to safeguard these groups under the proposals, including during relevant site clearance works. Long-term nesting opportunities will be maintained, if not enhanced, under the proposals through new landscape planting and associated habitat management.
- vii) **Enhancements.** The proposals present the opportunity to secure a number of biodiversity net gains, including additional native tree planting, new roosting opportunities for bats, and more diverse nesting habitats for birds.
- viii) **Summary.** In summary, the proposals have sought to minimise impacts on biodiversity and subject to the implementation of appropriate avoidance, mitigation and compensation measures, it is considered unlikely that the proposals will result in significant harm.

1 Introduction

1.1 Background and Proposals

- 1.1.1 Aspect Ecology has been commissioned by Citystyle Fairview VQ LLP in regard to ecological matters relating to the Land Formerly Known As British Gas Works, Albert Road, New Barnet, Barnet, EN4 9SH, centred at grid reference TQ 264 963 (see Plan 5826/ECO1), hereafter referred to as 'the site'.
- 1.1.2 The site is the subject of a number of previous planning applications (including refs B/04834/14, 16/7601/FUL and 17/5522/FUL), including resulting in planning permission for redevelopment, with site clearance and initial construction works having partially progressed in line with the permitted information. Previous proposals were informed by ecological survey work undertaken by others, dating from 2014 and 2016, whilst further details of ecological mitigation measures implemented during site clearance works were submitted to the London Borough of Barnet in order to facilitate the discharge of planning conditions 62 and 63 of permission B/04834/14 (application ref: 16/2193/CON).
- 1.1.3 A further planning application for the redevelopment of the site was submitted to The London Borough of Barnet in April 2020 (ref 20/1719/F), which was informed by a previous version of this report, dated April 2020. Comments received from The Council's appointed ecology consultee in relation to the application (dated 19/05/2020) confirm that "*We are satisfied that the evidence provided by the applicant is sufficient to address potential impacts and implications on biodiversity receptors*", and that any remaining issues could be addressed through suitably worded planning conditions.
- 1.1.4 Subsequently a revised scheme layout has been drawn up for the redevelopment of the site to provide 544 residential units (Use Class C3) within 13 buildings ranging from 4 to 8 storeys, with 267.1sqm of retail/commercial space and 112.7sqm of community space (Use Class A1/A2/A3/A4/B1/D1/D2) at ground floor, new public realm with communal landscaped amenity areas, alterations and additions to existing highways arrangements plus the removal of existing elevated footbridge and creation of new pedestrian routes, 334 car parking spaces (including car club and accessible provision) with basement and surface level provision, secure cycle parking, servicing and other associated development. Accordingly, Aspect Ecology has been commissioned to provide updated ecological information in order to inform the amended proposals and associated planning application..

1.2 Site Overview

- 1.2.1 The site is located in the north of New Barnet within an urban context, immediately north of Victoria Road, from which it is accessed, and north east of New Barnet station. The western site boundary is located adjacent to the East Coast Main Line railway, whilst the northern site boundary is located adjacent to an existing gas distribution centre, accessed via Albert Road through the centre of the site. The eastern site boundary is located adjacent to Victoria Recreation Ground.
- 1.2.2 The site itself is largely dominated by bare, cleared ground and construction areas resulting from the partial progression of the previously permitted development scheme, surrounded by existing development and open space areas, with other habitats including remaining buildings, scattered young scrub, ruderal vegetation and temporary standing water.

1.3 Purpose of the Report

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

2 Methodology

2.1 Desktop Study

- 2.1.1 In order to compile background information on the site and its immediate surroundings, Greenspace Information for Greater London (GiGL) was contacted, with data requested on the basis of a search radius of 1km around the site. In addition, a number of previous ecological survey reports and information relating to the site is available, having been prepared in relation to the previous planning applications and this information was also reviewed (see below in relation to previous surveys).
- 2.1.2 Information on statutory designations was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC) database, which utilises data provided by Natural England, with an extended search radius (25km). In addition, the MAGIC database was searched to identify the known presence of any Priority Habitats within or adjacent the site. Relevant information is reproduced at Appendix 5826/1 and on Plan 5826/ECO2, where appropriate.
- 2.1.3 In addition, the Woodland Trust database was searched for any records of ancient, veteran or notable trees within or adjacent to the site.
- 2.1.4 Where information has been received from the above organisation(s) this is reproduced at Appendix 5826/1 and on Plan 5826/ECO2, where appropriate.

2.2 Habitat Survey

Previous Survey Work

- 2.2.1 Previous habitat and protected species survey work was undertaken at the site in 2014 and 2016 by others, the results of which are set out within the following reports submitted to inform the previous applications:
- *Albert Road, New Barnet: Preliminary Ecological Appraisal* (The Ecology Consultancy), dated 09/07/2014
 - *T3021 Victoria Quarter, New Barnet: Bat Presence Likely Absence Surveys – Buildings Report* (The Ecology Consultancy), dated 10 September 2014
 - *T3021 Victoria Quarter, New Barnet: Reptile Survey* (The Ecology Consultancy), dated 10 September 2014
 - *Extended Phase 1 Habitat and Bat Roost Potential Survey: Victoria Gateway, New Barnet* (Delta-Simons), dated November 2016
- 2.2.2 In addition, information relating to the ecological mitigation measures understood to have been implemented at the site under the initial site clearance and progression under planning permission B/04834/14 are set out within delta simons report entitled “Method Statement for the Clearance of Vegetation and Reptile Translocation at Victoria Quarter, New Barnet”. Accordingly, the above reports have been reviewed in order to provide background information on the site and inform the current work.

Aspect Ecology Survey Work

- 2.2.3 The site was originally surveyed by Aspect Ecology Ltd in January 2020 in order to ascertain the general ecological value of the land contained within the boundaries of the site and to identify the main habitats and ecological features present, with further survey visits undertaken to the site during October 2020 to May 2021.
- 2.2.4 The site was surveyed based on standard Phase 1 Habitat Survey methodology¹, whereby the habitat types present are identified and mapped, together with an assessment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified can then be examined in more detail through Phase 2 surveys. This method was extended, in line with the Guidelines for Preliminary Ecological Appraisal² to record details on the actual or potential presence of any notable or protected species or habitats.
- 2.2.5 Using the above method, the site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified. The nomenclature used for plant species is based on the Botanical Society for the British Isles (BSBI) Checklist.

2.3 Faunal Surveys

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

Bats³

Visual Inspection Surveys

- 2.3.2 **Buildings.** Buildings within the site were subject to external inspection surveys and appraisal for any likely potential to support bats, with reference to the previous survey information. Further, specific internal and external inspection surveys were undertaken of the buildings present using ladders, torches and binoculars where necessary in October 2020.
- 2.3.3 During the external inspections, particular attention was given to any potential roost features or access points, such as broken or lifted roof tiles, lifted lead flashing, soffit boxes, weatherboarding, hanging tiles, etc. and for any external signs of use by bats such as accumulations of bat droppings or staining.
- 2.3.4 During the internal inspections, evidence for the presence of bats was searched for with particular attention paid to any loft voids and relevant potential roost features and locations, such as ridge boards, rafters, purlins, gable walls, and mortise joints. Specific searches were made for bat droppings that can indicate present or past use and extent of use, whilst other signs that can indicate the possible presence of bats were also searched for, e.g. presence of stained areas, feeding remains, corpses, etc. Any droppings collected during the course of the surveys were visually assessed and attributed to a species where

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

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

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

possible on the basis of size/shape/texture⁴. Where appropriate, samples of similar droppings were collected with gloved hands and put into labelled eppendorfs, and forwarded to the University of Warwick for DNA analysis.

2.3.5 Trees. Trees were assessed for their suitability to support roosting bats based on the presence of features such as holes, cracks, splits or loose bark. Suitability for roosting bats was rated based on relevant guidance⁵ as:

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

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

Dusk Emergence/ Dawn Re-entry Survey

2.3.7 A single dusk emergence survey was undertaken on 10th May 2021, with a dawn re-entry survey carried out on 11th May 2021 to identify any bats roosting in the buildings highlighted to have (low) potential suitability to support roosting bats.

2.3.8 Surveyors employed Echometer EM3 or EM Touch handheld bat detectors alongside BatBox Duet detectors to aid identification of any bats observed. At dusk, surveyors were in position 15-30 minutes prior to sunset, remaining in place for approximately 2 hours. At dawn, surveyors were in place approximately 1 hour 30 minutes to 2 hours before sunrise and remained in place until 15 minutes after sunrise. This survey method aims to identify any roosting bats emerging from or returning to potential roost sites.

2.3.9 This survey work was carried out during suitable weather conditions, as set out in Tables 2.1 and 2.2 below.

Table 2.1. Dusk survey details.

| Date | Start & end times & time of sunset | Structure reference / location | Equipment used | Weather |
|---|---|--------------------------------|--|-----------------------------------|
| 10/05/2021 | Start time: 20.23 End time: 22.38 Sunset: 20.38 | B2, B3 and B4 | Echo Meter EM3/Echo Meter EM Touch/ Anabat Scout. | Dry, 10-30% cloud, BF2-3, 15-12°C |
| Comments: The survey was undertaken by 6 surveyors (see Plan 5826/ECO4). | | | | |

BF0 = calm, BF12 = hurricane force.

Table 2.2. Dawn survey details.

| Date | Start & end times & time of sunrise | Structure reference / location | Equipment used | Weather |
|---|--|--------------------------------|--|------------------------------|
| 11/05/2021 | Start time: 03.14 End time: 05.29 Sunrise: 05.14 | B6 and B7 | Echo Meter EM3/Echo Meter EM Touch/ Anabat Scout. | Dry, 60% cloud, BF1-2, 7-9°C |
| Comments: The survey was undertaken by 4 surveyors (see Plan 5826/ECO4). | | | | |

⁴ Stebbings, RE, Yalden DW and Herman, JS (2007). 'Which bat is it? A guide to bat identification in Great Britain and Ireland.' The Mammal Society

⁵ Collins, J. (ed.) (2016) 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).' Bat Conservation Trust

BF0 = calm, BF12 = hurricane force.⁵ Badger (*Meles meles*)⁶

2.3.10 A detailed Badger survey was carried out in June 2019. The survey comprised two main elements. The first element involved searching for evidence of Badger setts. For any setts that were encountered, each sett entrance was noted and mapped. The following information was recorded:

- Number and location of well used / active entrances; these are clear from any debris or vegetation and are obviously in regular use and may, or may not, have been excavated recently;
- Number and location of inactive entrances; these are not in regular use and have debris such as leaves and twigs in the entrance or have plants growing in or around the edge of the entrance; and
- Number of disused entrances; these have not been in use for some time, are partly or completely blocked and cannot be used without considerable clearance. If the entrance has been disused for some time all that may be visible is a depression in the ground where the hole used to be and the remains of the spoil heap.

2.3.11 The second element involved searching for signs of Badger activity such as well-worn paths and push-throughs, snagged hair, footprints, latrines and foraging signs, so as to build up a picture of any use of the site by Badger.

2.4 Survey Constraints and Limitations

2.4.1 All of the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent during different seasons. The current Phase 1 habitat survey was undertaken outside the optimal season, albeit the nature of the habitats within the site allowed for the broad habitat types to be identified and for an adequate assessment of the intrinsic ecological interest of the site to be made.

2.4.2 Particular attention was paid to the presence of any invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), such as Japanese Knotweed *Fallopia japonica*. However, the detectability of such species varies due to a number of factors, e.g. time of year, site management, etc., and hence the absence of invasive species should not be assumed even if no such species were detected during the Phase 1 survey.

2.4.3 Any further, specific considerations of individual constraints relating to individual species or issues is set out below, within the body of the text as appropriate.

2.5 Ecological Evaluation Methodology

2.5.1 The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018)⁷, which involves identifying 'important ecological features' within a defined geographical context (i.e. international, national, regional, county, district, local or site importance). For further details refer to Appendix 5826/2.

⁶ Based on: Mammal Society (1989) 'Occasional Publication No. 9 – Surveying Badgers'

⁷ CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine', ver. 1.1, Chartered Institute of Ecology and Environmental Management, Winchester

2.6 National Policy Approach to Biodiversity in the Planning System

2.6.1 The National Planning Policy Framework (NPPF)⁸ describes the Government's national policies on 'conserving and enhancing the natural environment' (Chapter 15). NPPF is accompanied by Planning Practice Guidance on 'Biodiversity, ecosystems and green infrastructure' and ODPM Circular 06/2005⁹.

2.6.2 NPPF takes forward the Government's strategic objective to halt overall biodiversity loss¹⁰, as set out at Paragraph 170, which states that planning policies and decisions should contribute to and enhance the natural and local environment by:

'minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures'.

2.6.3 The approach to dealing with biodiversity in the context of planning applications is set out at Paragraph 175:

'When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.*

2.6.4 The above approach encapsulates the 'mitigation hierarchy' described in British Standard BS 42020:2019¹¹, which involves the following step-wise process:

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

⁸ Ministry of Housing, Communities & Local Government (2019) 'National Planning Policy Framework'

⁹ ODPM (2006) 'Circular 06/2005: Planning for Biodiversity and Geological Conservation – A Guide to Good Practice'

¹⁰ DEFRA (2011) 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services'

¹¹ British Standards Institution (2013) 'Biodiversity – Code of practice for planning and development', BS 42020:2019

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

2.6.5 The measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development (BS 42020:2019, section 5.5).

2.7 Local Policy

Barnet Local Plan (2012) Core Strategy

2.7.1 The Barnet Local Plan replaced the Unitary Development Plan and provides the overarching local policy framework for development in Barnet. The Local Plan contains a number of documents, the most important of which is the Core Strategy Development Plan Document (DPD) which contains the most fundamental objectives and policies.

2.7.2 **Policy CS7** of the Barnet Core Strategy refers to the protection and enhancement of Barnet's open space. In respect of ecology and biodiversity it states that demand for open space must be met through:

- 'maintaining and improving the greening of the environment through the protection of incidental greenspace, trees, hedgerows and watercourses enabling green corridors to link Barnet's rural, urban fringe and urban green spaces
- protecting existing Sites of Importance for Nature Conservation and working with our partners including the London Wildlife Trust to improve protection and enhancement of biodiversity in Barnet
- ensuring that development protects existing site ecology and makes the fullest contributions to enhancing biodiversity, both through on-site measures and by contribution to local biodiversity improvements'

Barnet Local Plan (2012) Development Management Policies

2.7.3 The Local Plan Development Management Policies sets out the planning policies for the borough which implement the Core Strategy DPD. Within the DPD, three policies relate to ecological considerations for development.

2.7.4 **Policy DM01** refers to Barnet's character and amenity. In particular parts j and k state:

'j. Development proposals will be required to include hard and soft landscaping that:

- i. is well laid out in terms of access, car parking and landscaping*
- ii. considers the impact of hardstandings on character*
- iii. achieve a suitable visual setting for the building*
- iv. provide an appropriate level of new habitat including tree and shrub planting*
- v. make a positive contribution to the surrounding area*
- vi. contributes to biodiversity including the retention of existing wildlife habitat and trees*
- vii. adequately protects existing trees and their root systems.*

k. Trees should be safeguarded. When protected trees are to be felled the council will require replanting with suitable size and species of tree where appropriate.'

2.7.5 **Policy DM04** part h refers to water courses and states that: '*Development proposals will wherever possible be expected to naturalise a water course, ensure an adequate buffer zone is created and enable public accessibility. Where appropriate, contributions towards river restoration and de-culverting will be expected.'*

2.7.6 **Policy DM16** refers to biodiversity:

- a. When considering development proposals the council will seek the retention and enhancement, or the creation of biodiversity.
- b. Where development will affect a Site of Importance for Nature Conservation and/or species of importance the council will expect the proposal to meet the requirements of London Plan Policy 7.19E.
- c. Development adjacent to or within areas identified as part of the Green Grid Framework will be required to make a contribution to the enhancement of the Green Grid.

London Plan 2021

2.7.7 In regard to ecology and nature conservation relating to development proposals, **Policy G6** within the London Plan 2021 relates to Biodiversity and access to nature, whilst **Policy G7** relates to trees and woodlands.

3 Ecological Designations

3.1 Statutory Designations

Description

- 3.1.1 The statutory designations of ecological importance that occur within the locality of the site are shown on Plan 5826/ECO2 and listed at Table 3.1., below. The nearest statutory designation is Covert Way Local Nature Reserve (LNR), which is located approximately 0.4km north of the site. A number of other LNR designations (see Table 3.1) are located within 5km of the site, all of which are separated by existing development, whilst no SSSIs or other statutory designations are located within 5km of the site.
- 3.1.2 Natural England has developed Impact Risk Zones (IRZs) as an initial tool to help assess the risk of developments adversely affecting SSSIs, taking into account the type and scale of developments. The site is not located within any identified Impact Risk Zones (IRZs) of relevance to new residential proposals.

Evaluation

- 3.1.3 The site itself does not contain, nor form part of any statutory ecological designations. All statutory ecological designations in the surrounding area are well separated from the site by existing development, whilst the site does not lie within any identified impact risk zone associated with ecological designations in relation to residential development. Accordingly, given the nature and scale of the proposals, such designations are unlikely to be affected.

3.2 Non-statutory Designations

Description

- 3.2.1 The non-statutory designations of nature conservation interest that occur within the local area are shown on Plan 5826/ECO2 and listed at Table 3.1., below.
- 3.2.2 The site does not contain, nor is it located adjacent to any identified non-statutory ecological designations. The closest such designations to the site are Pymme's Brook Site of Borough (Grade II) Importance for Nature Conservation and Monken Hadley Common Site of Borough (Grade I) Importance for Nature Conservation. The next nearest non-statutory designation is located over 1.5km from the site boundary.

Evaluation

- 3.2.3 The site itself is not subject to any non-statutory nature conservation designations. All non-statutory designations in the surrounding area are well separated from the site by existing development and given the nature and scale of the proposals, these designations are unlikely to be affected.

3.3 Priority Habitats, Ancient Woodland and Notable Trees

Description

- 3.3.1 There are no records of any notable or veteran trees within or adjacent to the site. A small area of woodland that is identified in MAGIC as the Priority Habitat 'Deciduous Woodland' is identified along the offsite railway embankment adjacent to the north west of the site. In addition, much of the northern part of the site is mapped under the MAGIC database as the

priority habitat, 'open mosaic habitats on previously developed land', albeit it is clear from habitats present (confirmed through the updated surveys) that the habitats present would not meet the relevant threshold for inclusion, This is discussed further within the relevant habitat section in Chapter 4 below.

Evaluation

- 3.3.2 Subject to the implementation of appropriate mitigation measures (as discussed below in Chapter 4) it is unlikely that any Priority Habitats or any notable or veteran trees will be significantly affected by the proposals.

3.4 Summary

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

Table 3.1: Ecological designations identified within the vicinity of the site.

| Name | Designation Type | Approximate Distance and Direction from Site |
|---|---|--|
| <i><u>Statutory Designations</u></i> | | |
| Covert Way | LNR | 0.7km north |
| Oak Hill Wood | LNR | 1.7km south east |
| Totteridge Fields Farm | LNR | 4.5km south west |
| Rowley Green Common | LNR | 4.5km west |
| Coppetts Wood and Glebelands | LNR | 4.6km south |
| Non-statutory Designations | | |
| Pymme's Brook | Site of Borough Grade II Importance for Nature Conservation | 0.4km east |
| Monken Hadley Common | Site of Borough Grade I Importance for Nature Conservation | 0.4km north |
| Hadley Wood Golf Course and Covert Way Fields | Site of Borough Grade I Importance for Nature Conservation | 0.7km north |
| Greenhill Gardens | Site of Local Importance for Nature Conservation | 0.8km south west |

4 Habitats and Ecological Features

4.1 Background Records

- 4.1.1 No specific records of any protected, rare or notable plant species from within or immediately adjacent to the site are included within the information returned from GiGL. A number of records of Priority Species were returned from wider search area, however none of these records appear to be of particular relevance to the site itself and no evidence for the presence of any of these species within the site was recorded during the survey work undertaken.

4.2 Overview

- 4.2.1 The habitats and ecological features present within the site are described below and evaluated in terms of whether they constitute an important ecological feature and their level of importance, taking into account the status of habitat types and the presence of rare plant communities or individual plant species of elevated interest. The likely effects of the proposals on the habitats and ecological features are then assessed. The value of habitats for the fauna they may support is considered separately in Chapter 5 below.

Previous Habitats

- 4.2.2 Based on the previous information and available photography and mapping, the site is understood to have previously been largely occupied by buildings and hardstanding along with associated small amenity planted areas, dominated by a single large call centre building, which is understood to have been demolished in 2008. Accordingly, by the time of the 2014 survey work, the site was noted to be derelict and unmanaged, dominated by hardstanding, albeit with colonising ephemeral and short perennial vegetation, scattered shrubs (including ornamental species), remaining buildings and small areas of developing species-poor grassland.
- 4.2.3 In addition, the presence of substantial stands of Japanese Knotweed *Fallopia japonica* were noted offsite within the adjacent railway embankment.
- 4.2.4 However, subsequent to the previous survey work and associated granting of planning permission for the previous scheme, further site clearance and initial development works (including permitted mitigation measures) are understood to have progressed, such that much of the site was noted to have been worked and the habitats and vegetation types altered.

Current Habitats

- 4.2.5 The following habitats/ecological features were identified within/adjacent to the site during the current survey work:
- Bare, cleared ground and recolonising ruderal vegetation;
 - Buildings and Hardstanding; and
 - Trees.
- 4.2.6 In addition, the adjacent offsite railway embankment provides a vegetated corridor adjacent to the site and accordingly, this habitat was also viewed during the survey work undertaken.

- 4.2.7 The locations of these habitat types and features are illustrated on Plan 5826/ECO3 and described in detail below.

4.3 Priority Habitats

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

- 4.3.2 Of the habitats within the site, none are considered to qualify as Priority Habitats and therefore constitute important ecological features.

4.4 Bare, cleared ground and recolonising ruderal vegetation

Description

- 4.4.1 The majority of the site was recorded to be composed of bare, recently cleared and worked ground resulting from the initial progression of site clearance and construction works associated with the permitted (previous) development scheme.
- 4.4.2 Accordingly, at the time of survey, the majority of these areas were recorded to be occupied by bare, stripped ground, with negligible vegetation limited to occasional colonising weeds at gaps and cracks in the margins such as Annual Meadow-grass *Poa annua*, Prickly Lettuce *Lactuca serriola*, Wild Clematis *Clematis vitalba*, Groundsel *Senecio vulgaris* and Canadian Fleabane *Conyza canadensis*.
- 4.4.3 Construction works within the eastern part of the site had progressed to provide a large, excavated basement, with vertical piled walls topped with concrete, such that the base is set considerably lower than the remainder of the site, and was recorded to be flooded with temporary puddled water at the time of survey (January, during the wet winter period), albeit otherwise supported bare unvegetated ground. In addition, herpetofauna fencing was noted to be present along much of the western boundary with the offsite railway embankment (indicating previous reptile mitigation measures – see below), whilst the presence of a root membrane (likely associated with Japanese Knotweed mitigation – see below in relation to adjacent offsite habitats) was also noted along part of the western site boundary (see Plan 5826/ECO3).
- 4.4.4 Small areas of recolonising ruderal vegetation are present at the northern site boundary where these areas appear to have been less recently disturbed, including colonising Butterfly-bush *Buddleja davidii*, Teasel *Dipsacus fullonum*, Broad-leaved Dock *Rumex obtusifolius*, Canadian Fleabane, Michaelmas Daisy *Aster* sp., Fat Hen *Chenopodium album*, Stinging Nettle *Urtica dioica*, Common Vetch *Vicia sativa* and Bramble *Rubus fruticosus* agg.
- 4.4.5 In addition, disturbed recolonising vegetated areas are present within the south of the site, associated with the remaining buildings apparently representing former (cleared) residential gardens. These areas were noted to include a number of rubbish and rubble piles along with ruderal weeds including Mugwort *Artemisia vulgaris*, Hedge Mustard *Sisymbrium officinale*, Bramble, Willowherbs *Epilobium* sp., Cleavers *Galium aparine*, Common Mallow *Malva sylvestris*, Canadian Fleabane and Teasel.

Evaluation

- 4.4.6 Overall, it is clear that the majority of the site, occupied by bare, cleared ground and colonising ruderal vegetation has been subject to considerable recent disturbance as part of the permitted development works and supports sparse vegetation limited to common and widespread weed species which offer negligible ecological value.
- 4.4.7 Parts of the site are identified on the MAGIC database as including the priority habitat type '*Open Mosaic Habitats on Previously Developed Ground*', however it is clear that the site is lacking in spatial variation or vegetation types that are typically represented in open mosaic habitats and accordingly is not considered to qualify under the criteria associated with this priority habitat type.
- 4.4.8 As such, this habitat clearly does not constitute an important ecological feature and the loss of these areas would be of ecological significance (indeed is already permitted under the existing permissions, whilst the inclusion of new landscaped areas will represent considerable potential for compensation and ecological enhancement).

4.5 Buildings and Hardstanding

Description

- 4.5.1 A number of buildings remain present within the southern part of the site, identified as buildings **B1** to **B7** on Plan 5826/ECO3. Individual building descriptions are set out below, at Chapter 5 in relation to potential to support roosting bats, however in terms of habitats the buildings were noted to be devoid of vegetation.
- 4.5.2 A number of areas of hardstanding are present within the site, including in particular the existing Albert Road, which extends through the site, providing access from Victoria Road at the south, to the offsite Albert Road Gas Works site situated north of the site. Albert Road remains in use for access and was noted to be composed of asphalt, which appeared largely well-maintained and devoid of vegetation, with secure construction fencing and hoarding separating the publicly accessible road areas from the remaining site areas.
- 4.5.3 In addition, areas of concrete, compacted gravel/hardcore and asphalt are present elsewhere within the site, including associated with the remaining buildings, along with the recently created basement areas and piled retaining walls.
- 4.5.4 The hardstanding is predominantly devoid of vegetation, aside from occasional small cracks and gaps. These cracks and gaps support small areas of colonising vegetation, restricted to common and widespread species in line with those present in the bare ground/recolonising areas described above.

Evaluation

- 4.5.5 The buildings and hardstanding support an extremely limited range of common and widespread floral species and are inherently of negligible ecological value. As such, they do not form important ecological features and their removal under the proposals is of negligible ecological significance. Potential for the buildings to support faunal species such as roosting bats is discussed below at Chapter 5.

4.6 Trees

Description

- 4.6.1 A single mature Lime *Tilia* sp. is present within the southern part of the site, set within an area of hardstanding and recolonising vegetation associated with the north of building B1 (see Plan 5826/ECO3). A single wooden bat box was noted to be present on the tree, facing south.
- 4.6.2 In addition, a small number of trees are present along, or just outside the eastern and western site boundaries in the form of self-set colonising Sycamore *Acer pseudoplatanus* and Willows *Salix* sp.

Evaluation

- 4.6.3 The single tree present within the internal areas of the site provides some slightly raised ecological value in the context of the (extremely low ecological value of the) site, albeit is isolated within existing developed and lit areas, limited in size and does not support features that would provide raised ecological value such as holes, cavities, dead wood or other features.
- 4.6.4 Accordingly, the tree itself is considered to be of limited ecological interest and is not considered to form an important ecological, whilst the opportunity exists as part of the proposed development to incorporate additional tree planting using native species that would result in considerable gains and increase in native tree cover at the site.

4.7 Offsite Railway Embankment

Description

- 4.7.1 The adjacent offsite railway embankment along the western site boundary provides a considerable vegetated corridor along the site boundary and was viewed from within the site. The embankment is set at a generally higher level than the site itself, with low brick retaining walls present towards the north of the site and secure metal palisade fencing marking the boundary, with reptile fencing present (indicative of previous mitigation – see below). The embankment slopes steeply up to the railway and supports vegetation including dense Bramble, scattered trees (predominantly Sycamore and Willows) and scrub, particularly higher up the embankment. Considerable stands of Giant Horsetail *Equisetum telmateia* are present immediately adjacent to the site boundary in the south, whilst considerable stands of Japanese Knotweed material were noted within the offsite areas, in line with the previously reported information.
- 4.7.2 Given the time of year, in the dormant season (and particularly given the lack of access onto the offsite land), the status of the Japanese Knotweed along the embankment could not be confirmed with only dead stems visible. However, the presence of an apparent root membrane along the adjacent sections of the site boundary was noted, whilst some vegetation management works were apparent, such that it is likely that the stands have been subject to some level of treatment/control.

Evaluation

- 4.7.3 The offsite railway embankment provides a considerable, vegetated corridor, which likely provides substantial ecological value in the local context given the lack of other vegetated features. However, the presence of Japanese Knotweed (which is included on Schedule 9

Part II of the Wildlife and Countryside Act 1981 (as amended)) in particular likely represents a key consideration.

- 4.7.4 Accordingly, recommendations are set out below in regard to the protection of the railway embankment corridor along with specific measures in regard to Japanese Knotweed in order to ensure these features are treated accordingly during the proposed development.

4.8 Habitat Evaluation Summary

- 4.8.1 On the basis of the above, none of the habitats within the site are considered to form important ecological features, however the presence of Japanese Knotweed within the adjacent offsite railway embankment is considered to represent an important consideration.
- 4.8.2 Habitats present within the site are limited to bare/sparsely colonising cleared ground, buildings and hardstanding and a tree, with the adjacent railway embankment including vegetated habitats including Bramble, scrub and trees that provide some raised ecological value in relation to the site. However, these habitats do not form important ecological features in relation to the current proposals.

5 Faunal Use of the Site

5.1 Overview

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

5.2 Priority Species

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

5.3 Bats

- 5.3.1 **Legislation.** All British bats are classed as European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended) and are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). As such, both bats and their roosts (breeding sites and resting places) receive full protection under the legislation. If proposed development work is likely to result in an offence a licence may need to be obtained from Natural England which would be subject to appropriate measures to safeguard bats. Given all bats are protected species, they are considered to represent important ecological features. A number of bat species are also considered S41 Priority Species.
- 5.3.2 **Background Records.** Information received from GiGL includes a number of records of bats from the wider search area, including Noctule *Nyctalus noctula*, Lesser Noctule *Nyctalus leisleri*, *Nyctalus* sp., Daubenton's Bat *Myotis daubentoni*, Soprano Pipistrelle *P. pygmaeus*, Pipistrelle bat species *Pipistrelle* sp., *Myotis* sp., Brown Long-eared Bat *Plecotus auritus* and indeterminate bat species (Chiroptera) within the search area around the site albeit none of these appear to relate directly to the site.
- 5.3.3 The previous survey work undertaken across the main part of the site during 2014 to inform the planning application at the time included specific bat surveys, which identified the presence of a summer roost, used by a single, or small number of Common Pipistrelle bats within the eastern façade of a single building at the south of the site. Details of proposed mitigation measures and licensing in regard to the removal of the building were provided in order to address the planning condition for the permitted development, whilst the building was recorded to no longer be present at the site during the most recent 2020 survey work.

5.3.4 Survey Results and Evaluation

Buildings

5.3.5 The site was recorded to contain a total of 7 buildings at the time of the current survey work, labelled B1 to B7 at Plans 5826/ECO3 and 5826/ECO4 and described below in relation to any potential to support roosting bats.

5.3.6 **Building B1** is a small, single storey brick sub-station building with a flat felt roof. The size and construction of the building is such that it offers negligible potential to support roosting bats and accordingly, can be safely scoped out of any further consideration in regard to this group.

5.3.7 **Building B2** is a two-storey residential building of brick construction with a pitched roof supporting concrete tiles and chimneys. The building was vacant and boarded across the lower storey at the time of current surveys, with no internal access available during the survey. Externally, the building appears superficially in good condition, with few evident gaps or openings that could provide potential for use by bats. Such features are limited to small amounts of missing mortar (under the eaves on the western gable) and a missing tile (on the northern aspect). In line with the previously submitted (2016) report (relating to previous application 16/7601/FUL, including the demolition of the building), building B2 is considered to offer no more than low potential for roosting bats, with no previous evidence available for any roosting activity (or other use by bats) having been noted.

5.3.8 **Building B3** is a further two-storey brick residential building forming a pair of semi-detached dwellings (17 and 19 Victoria Road), which were vacant and largely boarded-up at the time of survey. The building supports a pitched roof with concrete tiles and single-storey lean-to section at the rear (north). External features are limited to small holes in the brickwork, a small number of ill-fitting tiles close to the eaves, raised lead flashing around the chimney and minor gaps in/behind the soffit box. The internals could be accessed for 17 Victoria Road only, where the loft void contains bitumen felt lining beneath the tiles, wooden rafters, a brick gable wall and a wall separating the loft space from that of 19 Victoria Road. The building is considered to provide no more than low potential for use by roosting bats (in line with the previously submitted (2016) report relating to planning permission 16/7601/FUL, which includes the demolition of the building).

5.3.9 **Building B4** is a further two storey rendered brick building with a double-pitched roof supporting concrete tiles. The building appears to form a disused commercial property with former residential accommodation above. Externally, features include a small number of missing/mis-placed tiles (on the eastern and western elevations), gaps/holes in the brickwork and space behind the barge board. Internal access was limited by health and safety constraints and as such the ground floor was only partially accessible, while the upper floor could only be viewed from the top of the external staircase. Both floors are in a poor state of repair, with crevices present behind the walls and in the ceiling of the ground floor, and fallen ceiling panels present on the upper floor, beyond which lies bitumen felt roof lining beneath the roof tiles. No evidence of roosting bats was recorded and considering this, along with the location of the building adjacent to the lit Victoria Road, this building is considered to provide low potential suitability for use by roosting bats (including in line with the previously submitted (2016) report relating to planning application 16/7601/FUL).

5.3.10 **Building B5** is a dilapidated structure of portal frame construction formed by a wooden frame supporting a pitched roof of profiled metal sheeting and skylight sections. The structure is open at the facades, such that the internal structures are open, light and exposed, with frequent rubbish and rubble present. The nature of the structure provides

negligible potential to support any use by roosting bats and accordingly, it is considered that B5 can be safely scoped out of any further consideration in regard to this group.

- 5.3.11 **Building B6** is a two to three storey building of brick construction, forming a terrace of five residential properties. The westernmost property (B6a) appears vacant and disused, with external potential roost features including small gaps in the mortar beneath ridge tiles and a gap between the base of the wooden soffit box and the brickwork. Internally, only the ground floor was inspected due to access and health and safety constraints associated with the basement, first and second floors. No evidence of bats was recorded associated with the ground floor. The remaining four properties (B6b) have evidently been modernised, with recent mansard-style roofs including skylights, profiled metal and close-fitting man-made tiles and appeared to be occupied at the time of survey. These properties were fully inspected internally, and although an open bathroom window was recorded, along with a hole in the first-floor ceiling (leading to a cavity between the ceiling and the second floor), no associated evidence of bats was recorded. In summary building B6a is considered to offer low potential for roosting bats, while B6b offers negligible potential for roosting bats.
- 5.3.12 **Building B7** is a large, single storey brick building with a pitched, concrete-tiled roof and brick gables forming the former Salvation Army facility, which is now disused with no internal access available. Externally, features are limited to minor areas of lifted lead flashing (around the eastern chimney and on the south-western side of the roof), and a gap behind the barge board, apparently leading to the internal areas. The building was subject to bat emergence/re-entry survey work as part of the previous (2014) information associated with planning application B/04834/14 (under which the building is understood to be permitted for demolition), which recorded no evidence for any use by roosting bats.
- 5.3.13 A further, former building is noted within the previous survey reports and information, located south of building B7 and west of building B6, which was previously reported to support a summer roost used by a single, or small number of Common Pipistrelle bats, with mitigation measures and licensing previously obtained (by others) in order to facilitate the demolition of the building in line with the permitted position. At the time of the current survey work, the building was confirmed to be no longer present, having been demolished (presumably in line with the licenced/permitted mitigation measures) and as such no longer appears to represent a constraint. However, it is noted that the submitted information appears to include the provision of a single integrated bat box within a new building close to the location of the previous building, which remains to be constructed. Accordingly, in order to ensure provision of suitable compensatory measures in line with the previously permitted position, it is recommended that appropriate integrated bat roosting opportunities be incorporated into new buildings in close proximity to the previous roost as part of the current proposals.
- 5.3.14 In summary, buildings B1, B5 and B6b represent structures offering negligible potential to support roosting bats, such that these structures can be scoped out of any further consideration in relation to this group.
- 5.3.15 Previously submitted survey information in relation to the permitted development and associated applications includes bat survey work, including specific emergence/re-entry surveys relating to B7 (along with a former building no longer present) during 2014, which recorded no evidence for the use of B7, albeit a small roost used by a single/small number of Common Pipistrelle bats was recorded within the former building, which is no longer present. It is understood that the former building was demolished in line with the permitted position, including suitable mitigation and licencing, albeit it appears that the agreed compensatory measures remain to be provided and should therefore be incorporated into the current proposals.

- 5.3.16 No previous specific emergence/re-entry survey work of buildings B2-B4 or B6a appears to have been undertaken and although such survey work was undertaken of building B7 in 2014, this may no-longer be representative of the current situation. These buildings all provide apparently low potential suitability for use by bats (particularly given their location immediately adjacent to the lit Victoria Road, albeit noting the previously recorded roosting activity within an adjacent former building), whilst it is understood that all of these buildings are identified for demolition under the previously permitted development proposals.
- 5.3.17 Nonetheless, the previously (2016) submitted information includes recommendations that buildings with low suitability for roosting bats be subject to a single emergence/re-entry survey during the optimal seasonal period (May to September) in order to confirm the presence or likely absence of roosting bats prior to works affecting the buildings.

Trees

- 5.3.18 The single tree present within the site was not itself recorded to support any features such as cracks, splits or rot holes that could provide potential opportunities for roosting bats. A single wooden bat box was noted to be present on the tree, although a thorough inspection during the current surveys recorded no associated evidence for any use of the box by roosting bats.
- 5.3.19 Overall, on the basis of the previously submitted mitigation measures, the incorporation of integrated bat roosting units within the proposed new buildings provides the opportunity to benefit bats through the availability of significantly increased potential roosting sites (including provision of the agreed compensation in line with the previously permitted position).

Dusk and Dawn Surveys

Emergence / re-entry surveys (buildings)

- 5.3.20 Buildings B2-B4, B6a and B7 were recorded to support low suitability for roosting bats and were therefore subject to further survey work in the form of a single dusk emergence survey of buildings B2-B4, and a single dawn re-entry survey of buildings B6a and B7 (see Plan 5826/ECO4). The results of the dusk emergence and dawn re-entry surveys are summarised in Table 5.1 below.

Table 5.1. Emergence / re-entry survey results.

| Building | Date | Sunset/ sunrise | Emergence/ re-entry | Summary of other activity |
|----------|------------------------------------|--------------------|---------------------|---|
| B2 | 10 th June 2021 Dusk | Sunset: 20:38 | None | No bats recorded emerging from the building. |
| B3 | 10 th June 2021 Dusk | Sunset: 20:38 | None | No bats recorded emerging from the building. A single Soprano Pipistrelle pass was recorded to the north of building B3. |
| B4 | 10 th June 2021 Dusk | Sunset: 20:38 | None | No bats recorded emerging from the building. A single pass by a <i>Nyctalus/Eptesicus</i> species was heard from northeast of building B4. |
| B6a | 11 ^h June 2021 Dawn | Sunrise: 05:14 | None | No bats recorded emerging from the building. |
| B7 | 11 th June 2021 Dawn | Sunrise: 05:14 | None | No bats recorded emerging from the building. |

Foraging / Commuting

- 5.3.21 The vast majority of the site is formed by bare, cleared ground, buildings and hardstanding with negligible vegetation, located within an existing extensively developed location. Mature vegetation is extremely limited across the site, and where present is largely restricted to the extreme site boundaries and accordingly, the site itself is extremely unlikely to form an important resource for foraging or commuting bats (consistent with the low activity levels recorded during the above dusk/dawn surveys). The offsite vegetation (in particular the vegetated railway embankment along the western site boundary) likely provides potential flyways and foraging corridors for this group, albeit limited by the heavily developed, urban surroundings, such that any use by bats may be anticipated to be limited to less light-sensitive species.
- 5.3.22 In order to ensure the proposals do not result in any potential adverse effects on bats and indeed ensure that potentially enhanced opportunities are available through new planting and vegetation, recommendations are set out at Chapter 6., below, (particularly in regard to new lighting, along with provision of new vegetation, including biodiverse roofs and ground level planting).
- 5.3.23 Accordingly, subject to the implementation of the recommendations outlined at Chapter 6 below, along with other ecological enhancements, it is considered that the conservation status of local bat populations will be fully safeguarded under the scheme.

5.4 Badger

- 5.4.1 **Legislation.** Badger receives legislative protection under the Protection of Badgers Act 1992, and as such should be assessed as an important ecological feature. The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain. It is the duty of planning authorities to consider the conservation and welfare impacts of development upon Badger and issue permissions accordingly.
- 5.4.2 Licences can be obtained from Natural England for development activities that would otherwise be unlawful under the legislation. Guidance on the types of activity that should be licensed is laid out in the relevant best practice guidance.^{12, 13}
- 5.4.3 **Background records:** No records of Badger within or adjacent to the site were returned from the desktop study.
- 5.5 **Survey Results and Evaluation.** No Badger setts were found within or immediately adjacent to the site, nor were any latrines or dung pits recorded. There were no recorded signs of Badgers foraging in, or commuting through, the site. As set out above, the site is dominated almost entirely by cleared bare/sparsely recolonising vegetation, buildings and hardstanding, such that the substrate across the majority of the site is unlikely to be suitable for burrowing activity by this species, whilst any setts or associated activity would likely have been clearly visible if present given the lack of vegetation. Accordingly, this species does not appear to make use of the site and is unlikely to be affected by the proposals, such that no further consideration would appear to be required in relation to Badger.

¹² English Nature (2002) 'Badgers and Development'

¹³ Natural England (2011) 'Badgers and Development: A Guide to Best Practice and Licensing', Interim Guidance Document

5.6 Other Mammals

- 5.6.1 **Legislation.** A number of other UK mammal species do not receive direct legislative protection relevant to development activities but may receive protection against acts of cruelty (e.g. under the Wild Mammals (Protection) Act 1996). In addition, a number of these mammal species are S41 Priority Species and should be assessed as important ecological features.
- 5.6.2 **Background Records.** No specific records of other mammals from within or adjacent to the site were returned from the desktop study. A small number of records of Hedgehog *Erinaceus europaeus* (Priority Species) was returned from within the search area around the site, albeit more specific information was not available that would allow the precise location of these records to be determined in relation to the site.
- 5.6.3 **Survey Results and Evaluation.** No evidence of any other protected, rare or notable mammal species was recorded within the site. Other urban mammal species likely to utilise the site, such as Fox *Vulpes vulpes*, remain common in both a local and national context, and as mentioned above do not receive specific legislative protection in a development context whilst the nature of the site is such that it is unlikely to provide an important foraging resource for such species due to the general lack of vegetation, cover or other features. As such, these species are not a material planning consideration and the loss of potential opportunities for these species to the proposals is of negligible significance.
- 5.6.4 The desktop study returned background records of Hedgehog within the surrounding area. Hedgehog is a Priority Species, albeit this species remains common and widespread in England. The site offers potential opportunities for this species, particularly in the form of areas of denser scrub, rank grassland tall herbs and Bramble in the east of the site, although habitats are unlikely to be of importance in a local context, and Hedgehog is considered to be of importance at a site level only. The majority of these areas are retained under the proposals. In any event, abundant similar opportunities are present within the local area and there is no evidence to suggest the proposals will significantly affect local populations of this species.

5.7 Amphibians

- 5.7.1 **Legislation.** All British amphibian species receive a degree of protection under the Wildlife and Countryside Act 1981 (as amended). Great Crested Newt is protected under the Act and is also classed as a European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended). As such, both Great Crested Newt and habitats utilised by this species are afforded protection. Great Crested Newt is also a S41 Priority Species, as are Common Toad *Bufo bufo*, Natterjack Toad *Epidalea calamita*, and Pool Frog *Pelophylax lessonae*. As such, these species should be assessed as important ecological features.
- 5.7.2 **Background Records.** No records of Great Crested Newt from within the site or surrounding search area were returned from the desktop study. A small number of records of Common Toad were returned from the search area surrounding the site, albeit with the closest record considerably removed from the site.
- 5.7.1 **Survey Results and Discussion.** No permanent standing water bodies, and hence no suitable potential breeding opportunities for the fully protected amphibian species Great Crested Newt *Triturus cristatus* are located within or immediately adjacent to the site itself. Temporary standing water was noted within the constructed basement within the east of the site, however this clearly represents only a recent, short term habitat which is unlikely

to provide opportunities for Great Crested Newt. Similarly, the lack of dense vegetation and recent disturbance across the site are such that the terrestrial habitats within the site are similarly unlikely to provide particular opportunities for Great Crested Newt.

- 5.7.2 On the basis of available mapping and aerial imagery (including the 1:25,000 Ordnance Survey map of the area covering the site), no ponds or standing waterbodies appear to be present within 250m of the site, which could provide potential breeding opportunities for amphibian species such as the fully protected species Great Crested Newt.
- 5.7.3 On this basis, the proposals are unlikely to result in any adverse effects on fully protected amphibian species (Great Crested Newt), which do not, therefore require further consideration or represent a potential constraint in regard to the proposals. Indeed, the nearest significant waterbody identified to the site based on available mapping is Beech Hill Lake, situated approximately 725m north east of the site, beyond substantial existing development, whilst the site was also subject to previous reptile translocation with herpetofauna barrier fencing remaining present.
- 5.7.4 Background records of Common Toad were returned from the vicinity of the site. Common Toads are widespread and frequent throughout England, including within suburban areas and gardens. They breed in large ponds and water bodies, albeit spend much of their time on land and can migrate considerable distances (1km or more) from hibernation habitats (typically woodland or denser vegetation). Where suitable water bodies are present within 1km of proposed development sites, it may therefore be appropriate to undertake a risk assessment in relation to potential impacts on Common Toad populations in order to inform any requirement for further consideration or mitigation measures.
- 5.7.5 In relation to the site, it is clear that the habitats present are largely unsuitable for Common Toad, whilst they are well separated from any identified suitable pond or existing records of this species (with considerable dispersal barriers in place including existing buildings, along with (in the case of the adjacent railway corridor) herpetofauna exclusion fencing as a result of previously permitted relocation/site clearance activities). Accordingly, it can safely be concluded that the proposed development constitutes at worst a low risk to this species¹⁴, which is therefore unlikely to be adversely affected.
- 5.7.6 Nonetheless, in line with previous planning condition requirements in relation to the site, minor safeguards are recommended at Chapter 6., below in regard to Common Toad, following which the proposals are unlikely to result in any significant effect on amphibians.

5.8 Reptiles

- 5.8.1 **Legislation.** All six species of British reptile are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), which protects individuals against intentional killing or injury. Sand Lizard *Lacerta agilis* and Smooth Snake *Coronella austriaca* receive additional protection under the Conservation of Habitats and Species Regulations 2017 (as amended);. All six reptile species are also S41 Priority Species. As such, all reptile species should be assessed as important ecological features.
- 5.8.2 **Background Records.** Information returned from GiGL includes a single record of each of Grass Snake *Natrix helvetica* and Slow Worm *Anguis fragilis* dating from 2016 within close proximity to the site. Further, the previous reptile survey work undertaken at the site during 2014 identified the presence of small numbers of Slow Worm within suitable vegetated

¹⁴ Barker, F (Ed.) 2009. Common toads and roads – Guidance for planners and highways engineers (England). Amphibian and Reptile Conservation

habitats along the western boundary with the offsite railway embankment at the site at that time, with a peak count of 6 individuals.

- 5.8.3 **Survey Results and Evaluation.** During the current survey work, the habitats present at the site were recorded to be dominated by bare, cleared ground, buildings and hardstanding, with limited, sparse vegetation that is unlikely to provide suitable opportunities for reptile species. Previous surveys undertaken in 2014 identified the presence of individual Slow Worms, located within suitable habitats (present at that time) along the western boundary with the offsite railway embankment (considered at the time to provide the focus of the reptile population).
- 5.8.4 Further, information submitted to the London Borough of Barnet in order to address planning conditions associated with the existing planning permission includes details of reptile mitigation measures to be implemented as part of the permitted development. During the current survey work, the presence of reptile fencing was noted along the western boundary with the railway embankment, indicating that the identified mitigation measures were likely undertaken in line with the submitted information prior to site clearance.
- 5.8.5 Accordingly, on the basis of the current evidence, it is unlikely that the site currently supports any reptile species, albeit reptiles are likely to remain present within the adjacent habitats and (should suitable habitats develop) could recolonise at any time. Given the known presence of reptiles within the adjacent habitats, suitable precautionary safeguards are recommended at Chapter 6 in relation to this group.

5.9 Birds

- 5.9.1 **Legislation.** All wild birds and their nests receive protection under Section 1 of the Wildlife and Countryside Act 1981 (as amended) in respect of killing and injury, and their nests, whilst being built or in use, cannot be taken, damaged or destroyed. Species included on Schedule 1 of the Act receive greater protection and are subject to special penalties.
- 5.9.2 **Conservation Status.** The conservation importance of British bird species is categorised based on a number of criteria including the level of threat to a species' population status¹⁵. Species are listed as Green, Amber or Red. Red Listed species are considered to be of the highest conservation concern being either globally threatened and or experiencing a high/rapid level of population decline (>50% over the past 25 years). A number of birds are also S41 Priority Species. Red and Amber listed species and priority species should be assessed as important ecological features.
- 5.9.3 **Background Records.** Information from the data search included records of a number of bird species in the vicinity of the site, including Red Listed species, albeit none of the records appear to originate from within the site itself.
- 5.9.4 **Survey Results and Evaluation.** Bird species observed within the site during the current survey work include Robin *Erithacus rubecula*, Magpie *Pica pica*, Pied Wagtail *Motacilla alba*, Goldfinch *Carduelis carduelis*, Dunnock *Prunella modularis* and Black-headed Gull *Larus ridibundus*.
- 5.9.5 The vast majority of the site is formed by bare, cleared ground, buildings and hardstanding with negligible vegetation, located within an existing extensively developed location, which is therefore unlikely to provide important foraging resources or opportunities for bird

¹⁵ Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) 'Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man' British Birds 108, pp.708-746

species, such that their loss would be of no importance in respect of this group, whilst further, in the long term, the proposed redevelopment of the site offers the opportunity to provide considerable new habitat opportunities for bird species as part of any new landscaping and enhancements such as biodiverse roofs or ground level planting.

- 5.9.6 Nonetheless, the proposals could potentially result in the loss of minor suitable vegetation (e.g. developing scrub and trees) or other features that could be used by nesting birds. Accordingly, it is recommended that suitable safeguards are put in place in respect of nesting birds, whilst it is further recommended that new nesting opportunities be provided for birds under any proposals, as set out at Chapter 6., below.

5.10 Invertebrates

- 5.10.1 **Legislation.** A number of invertebrate species are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). In addition, Large Blue Butterfly *Maculinea arion*, Fisher's Estuarine Moth *Gortyna borellii lunata* and Lesser Whirlpool Ram's-horn Snail *Anisus vorticulus* receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended). A number of invertebrates are also S41 Priority Species. Where such species are present, they should be assessed as important ecological features.

- 5.10.2 **Background Records.** No specific records of invertebrates were returned from within or immediately adjacent to the site. A number of records of Marsh Fritillary *Eurodryas aurinia* (Priority Species) were returned within information received from GCER, with the closest located approximately 1.5km south-west of the site.

- 5.10.3 **Survey Results and Evaluation.** No evidence for the presence of any protected, rare or notable invertebrate species was recorded within the site. The site is dominated by bare, cleared ground with a small number of existing buildings and hardstanding, which are likely to support only a limited diversity of invertebrates. The site has several areas of bare ground and occasional patches of recolonising ruderal vegetation, but otherwise is largely lacking in micro-habitats that would typically indicate elevated potential for invertebrates¹⁶, such as a variable topography with areas of vertical exposed soil, areas of species-rich semi-natural vegetation; variable vegetation structure with frequent patches of tussocks combined with short turf; free-draining light soils; walls with friable mortar or fibrous dung. Accordingly, given the habitat composition of the site and lack of adjacent sites designated for significant invertebrate interest, it is considered unlikely that the proposals will result in significant harm to any protected, rare or notable invertebrate populations, and the site is not considered to support an important invertebrate assemblage.

5.11 Summary

- 5.11.1 On the basis of the above, a summary of the evaluation of relevant faunal groups is provided below:

Table 5.1. Evaluation summary of fauna forming important ecological features.

| Species / Group | Supported by or associated with the site | Level of Importance |
|-----------------|---|---------------------|
| Bats – Roosting | Previously recorded on site (building demolished under licence) | Local |
| Reptiles | Present adjacent to the site (formerly on site) | Local |
| Birds | Likely presence/nesting on site | Local |

¹⁶ Natural England (2010) 'Higher Level Stewardship – Farm Environment Plan (FEP) Manual', 3rd Edition

- 5.11.2 Other fauna likely supported by the site and adjacent habitats include non-priority species of mammals, amphibians and invertebrates. However, these species do not form important ecological features.

6 Mitigation Measures and Biodiversity Net Gains

6.1 Mitigation

- 6.1.1 Based on the habitats, ecological features and associated fauna identified within / adjacent to the site, along with associated considerations in relation to the proposed development and existing planning situation, it is proposed that the following mitigation measures (**MM1** to **MM8**) are implemented under the proposals. Further, detailed mitigation strategies or method statements can be secured via suitably-worded planning conditions, as recommended by relevant best practice guidance (BS 42020:2019).

Construction Safeguards

- 6.1.2 **MM1 – General Construction Safeguards.** In order to reduce adverse effects associated with construction activities on adjacent habitats or fauna that may occur within the site, safeguarding measures should be implemented, to include the following:

- Damping down of dust sources and covering of loose materials to reduce dust deposition within adjacent habitats;
- Use of lighting to be kept to a minimum. Any lighting required (e.g. for security purposes) to be directed away from boundary features, with use of directional lighting or screening as required to reduce light spill;
- Storage of chemicals and hazardous materials in line with best practice guidelines, ensuring that they are secure and cannot be accessed or knocked over by roaming animals;
- Fires will only be lit in secure compounds and not allowed to remain during the night; and
- Food and litter should not be left within the working areas overnight.

Bats

- 6.1.3 **MM2 – Update Survey.** Should any considerable time (e.g. >2 years) elapse between the survey work detailed above and any development works, a further survey of the buildings with potential to support roosting bats should be undertaken prior to the commencement of works to confirm the continued absence of bats.

- 6.1.4 **MM3 – Removal of Roofs.** Notwithstanding there is no evidence that the existing buildings within the site have ever been used by roosting bats, given the previously recorded use of the former (demolished) building by bats, it is recommended that the removal of any roofs or other structures with potential to support or conceal roosting bats within the buildings offering low potential suitability for this group at the site be undertaken with care during favourable weather conditions (e.g. not during heavy rain, high winds or unseasonable low temperatures) under an appropriate watching brief. Should any bats be encountered, works would need to stop and Aspect Ecology contacted so that suitable mitigation can be agreed prior to works re-commencing. This may potentially involve discussion with Natural England and acquisition of a development licence for works to resume.

- 6.1.5 **MM4 – Sensitive Lighting.** The majority of the site is dominated by bare, cleared ground permitted for development, whilst the site is largely surrounded by existing developed areas. Nonetheless, light-spill onto retained and newly created habitats, in particular connected landscape corridors and tree lines (including the adjacent railway embankment, which provides a substantial corridor), should be minimised in accordance with good

practice guidance¹⁷ to reduce potential impacts on light-sensitive bats (and other nocturnal/crepuscular fauna) should they be present. This may be achieved through the implementation of a sensitively designed lighting strategy, with consideration given to the following key factors:

- **Light exclusion zones** – ideally no lighting should be used in areas likely to be used by bats. Light exclusion zones or ‘dark buffers’ may be used to provide interconnected areas free of artificial illumination to allow bats to move around the site;
- **Appropriate luminaire specifications** – consideration should be given to the type of luminaires used, in particular luminaries should lack UV elements and metal halide and fluorescent sources should be avoided in preference for LED luminaries. A warm white spectrum (ideally <2,700K) should be adopted to reduce the blue light component;
- **Light barriers / screening** – new planting (e.g. hedgerows and trees) or fences, walls and buildings can be strategically positioned to reduce light spill;
- **Spacing and height of lighting units** – increasing spacing between lighting units will minimise the area illuminated and allow bats to fly in the dark refuges between lights. Reducing the height of lighting will also help decrease the volume of illuminated space and give bats a chance to fly over lighting units (providing the light does not spill above the vertical plane). Low level lighting options should be considered for any parking areas and pedestrian / cycle routes, e.g. bollard lighting, handrail lighting or LED footpath lighting;
- **Light intensity** – light intensity (i.e. lux levels) should be kept as low as possible to reduce the overall amount and spread of illumination;
- **Directionality** – to avoid light spill lighting should be directed only to where it is needed. Particular attention should be paid to avoid the upward spread of light so as to minimise trespass and sky glow;
- **Dimming and part-night lighting** – lighting control management systems can be used, which involves switching off/dimming lights for periods during the night, for example when human activity is generally low (e.g. 12.30 – 5.30am). The use of such control systems may be particularly beneficial during the active bat season (April to October). Motion sensors can also be used to limit the time lighting is operational.

Reptiles and Amphibians

- 6.1.6 **MM5 – Precautionary mitigation (Common Toad).** In line with previous planning condition requirements at the site, along with suggested general guidance in relation to road developments posing a low risk to toad populations, it is recommended that dropped kerbs be incorporated into new roads throughout the development in order to prevent any wandering individuals from becoming trapped (particularly in association with gully pots). Subject to this, further consideration, mitigation or survey in regard to this species is not considered necessary in relation to the permitted development.

¹⁷ Stone, E.L. (2013) ‘Bats and lighting: Overview of current evidence and mitigation guidance.’ ILP (2011) ‘Guidance notes for the reduction of obtrusive light’ Institution of Lighting Professionals, GN01:2011; and Bat Conservation Trust (2014) ‘Artificial Lighting and Wildlife – Interim Guidance: Recommendations to help minimise the impact of artificial lighting’.

- 6.1.7 **MM6– Precautionary mitigation (reptiles).** The habitats currently present within the site are unlikely to support reptile species, whilst reptile fencing was noted to be present along the western boundary to prevent recolonization by this group. Nonetheless, given the previously recorded presence of Slow Worm within the site (which are understood to have been relocated to the railway corridor), in order to prevent early recolonization by this species prior to the completion of construction works, and thereby ensure reptiles are suitably safeguarded, it is recommended that the existing reptile fencing be maintained throughout the construction works and the existing habitats within the site (particularly associated with the western boundary) be managed (prior to completion of construction activities) to prevent significant vegetation regrowth within areas to be worked, that could otherwise provide suitable habitats for reptiles to colonise. Following the completion of construction activities, the reptile fencing can be removed and any appropriate habitats managed to encourage use by reptiles where appropriate, which would likely benefit this group in the long term.

Nesting Birds

- 6.1.8 **MM7 – Timing of Works.** To avoid a potential offence under the relevant legislation, no clearance of suitable vegetation should be undertaken during the bird-nesting season (i.e. outside of 1st March to 31st August inclusive). If this is not practicable, any potential nesting habitat to be removed should first be checked by a competent ecologist in order to determine the location of any active nests. Any active nests identified would then need to be cordoned off (minimum 5m buffer) and protected until the end of the nesting season or until the birds have fledged. These checking surveys would need to be carried out no more than three days in advance of vegetation clearance.

Invasive Species

- 6.1.9 **MM8 – Invasive Species Safeguards.** Japanese Knotweed is listed on Schedule 9 Part II of the Wildlife and Countryside Act 1981, making it an offence to cause this species to grow in the wild. No evidence for the presence of this species within the site was recorded, however it is clear (from the previous information and current surveys) that this species is present within the adjacent offsite railway embankment. As such, all relevant precautions should be taken when carrying out actions that could potentially spread these plants. The government has set out guidance on what can be considered ‘causing to grow in the wild’ within a response to the Schedule 9 review which states:

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

- 6.1.10 As such, it is recommended that appropriate safeguards be put in place to prevent the spread of the Schedule 9 species during the proposed development works. On the basis of the current information (including the apparent installation of a root membrane along parts of the site boundary), it appears that suitable control/eradication measures are already in place at the site in regard to this species. Nonetheless, it is recommended that this position be confirmed and suitable measures be continued, including monitoring of the existing (offsite) stands and maintenance of the root barrier to prevent colonisation of the site or potential future spread of this species as a result of the proposed development.

6.2 Biodiversity Net Gains

- 6.2.1 The National Planning Policy Framework (NPPF) encourages new developments to maximise the opportunities for biodiversity through incorporation of enhancement measures. The proposals present the opportunity to deliver ecological enhancements at the site for the benefit of local biodiversity, thereby making a positive contribution towards the broad objectives of national conservation priorities and the local Biodiversity Action Plan (BAP). The recommendations and enhancements summarised below are considered appropriate given the context of the site and the scale and nature of the proposals. Through implementation of the following ecological enhancements (**EE1** to **EE5**), the opportunity exists for the proposals to deliver a number of biodiversity net gains at the site.

Habitat Creation

- 6.2.2 **EE1 – New Planting.** It is recommended that where practicable, new planting within the site be composed of native species of local provenance, including trees and shrubs appropriate to the local area. Suitable species for inclusion within the planting could include native trees such as Oak, Ash, Birch *Betula pendula* and Field Maple, whilst native shrub species of particular benefit would likely include fruit and nut bearing species which would provide additional food for wildlife, such as Hawthorn *Crataegus monogyna*, Crab Apple *Malus sylvestris*, Hazel *Corylus avellana* and Elder *Sambucus nigra*. Where non-native species are proposed, these should include species of value to wildlife, such as varieties listed on the RHS' 'Plants for Pollinators' database, providing a nectar source for bees and other pollinating insects.
- 6.2.3 **EE2 – Green Roofs.** It is understood that the current development proposals incorporate the provision of a number of green roofs across the proposed new buildings. Accordingly, where possible, it is recommended that green roofs incorporate areas designed to provide high quality biodiverse habitats, incorporating a mosaic of bare substrate, sparse recolonising vegetation, grassland and wildflowers, together with rubble or log piles to form habitat piles and shelter opportunities for invertebrate species (see Appendix 5826/3).

Bats

- 6.2.4 **EE3 - Bat Boxes.** A number of integrated bat boxes / roost features will be incorporated within the new buildings as part of the proposed development (for examples see Appendix 5826/3), in addition to any requirements associated with the existing licence. The provision of bat boxes will provide new roosting opportunities for bats in the area, such as Soprano Pipistrelle, a national Priority Species. So as to maximise their potential use, the bat boxes should ideally be situated as high up as possible and sited in sheltered wind-free areas that are exposed to the sun for part of the day, facing a south-east, south or south-westerly direction. The precise number and locations of boxes / roost features should be determined by a competent ecologist, post-planning once the relevant final development design details have been approved.

Birds

- 6.2.5 **EE4 - Bird Boxes.** A number of bird nesting boxes (for examples see Appendix 5826/3) will be incorporated within the proposed development, incorporated into the design of new buildings situated as high as possible within suitable locations, thereby increasing nesting opportunities for birds at the site. The precise number and locations of boxes should be determined by a competent ecologist, post-planning once the relevant final development design details have been approved.

Invertebrates

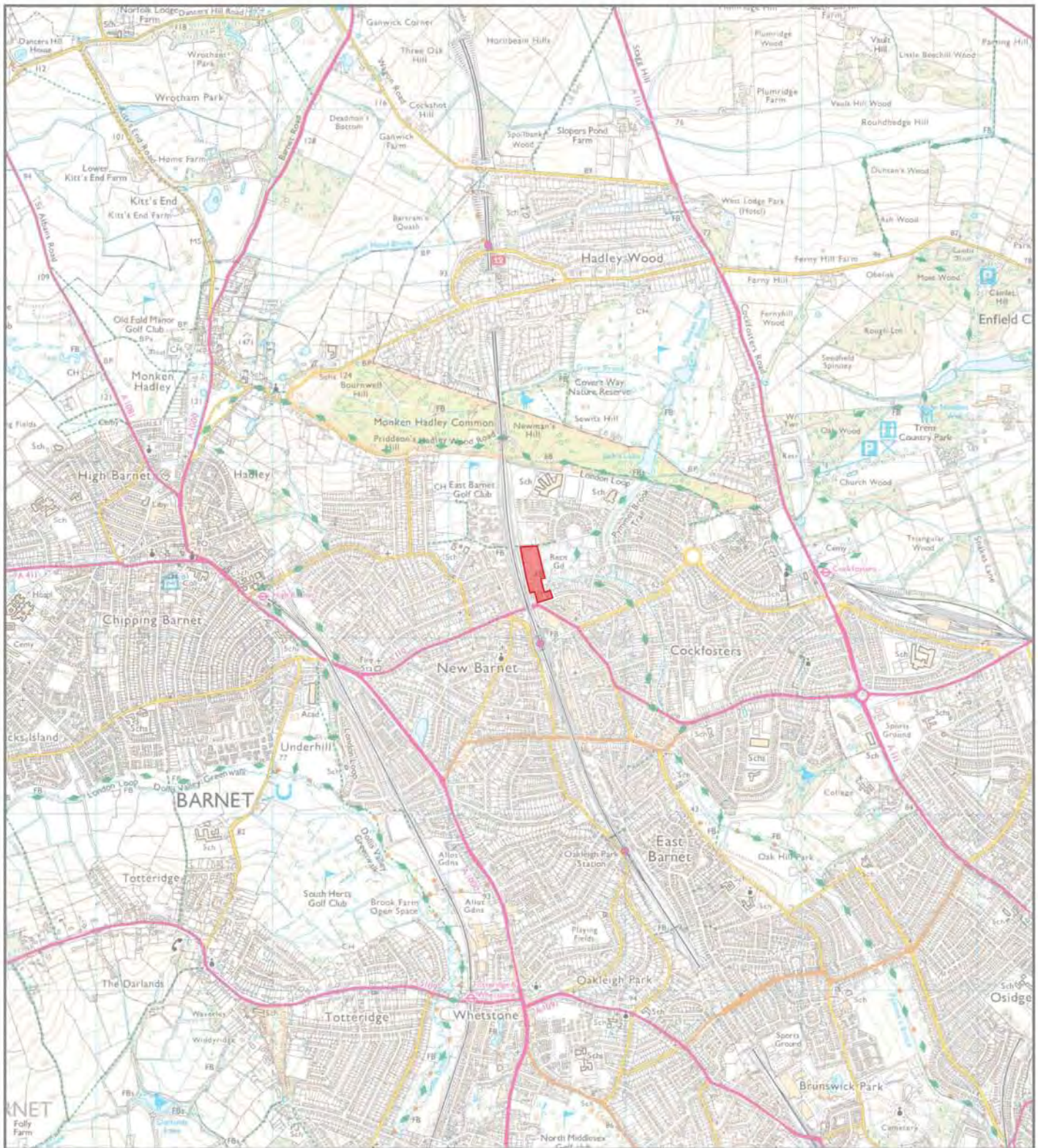
- 6.2.6 **EE5 – Habitat Piles.** Any deadwood arising from vegetation clearance works should be retained within the site in a number of wood piles located within areas of new planting (particularly associated with the western boundary), in order to provide potential habitat opportunities for invertebrate species development (see Appendix 5826/3), which in turn could provide a prey source for a range of other wildlife. In addition, the provision and management of new native landscape planting will likely provide additional opportunities for invertebrates at the site in the long term.

7 Conclusions

- 7.1 Aspect Ecology has carried out an Ecological Appraisal of the proposed development, based on the results of a desktop study, Phase 1 habitat survey and a number of detailed protected species surveys as appropriate.
- 7.2 The available information confirms that no statutory or non-statutory nature conservation designations are present within or adjacent to the site, and none of the designations within the surrounding area are likely to be adversely affected by the proposals.
- 7.3 The Phase 1 habitat survey has established that the site is dominated by habitats of negligible to low ecological value, which are not considered to be of ecological importance, whilst the proposals have sought to retain those features identified to be of value. Where it has not been practicable to avoid loss of habitats, new habitat creation has been proposed to offset losses, in conjunction with the landscape proposals.
- 7.4 The habitats within the site support, or potential to support, several protected species, including species protected under the provisions of the relevant legislation. Accordingly, a number of mitigation measures are proposed to minimise the risk of harm to protected species, with compensatory measures proposed, where appropriate, in order to maintain the conservation status of local populations.
- 7.5 In conclusion, the proposals have sought to minimise impacts and subject to the implementation of appropriate avoidance, mitigation and compensation measures, it is considered unlikely that the proposals will result in significant harm to ecological receptors. On the contrary, the opportunity exists to provide a number of biodiversity net gains as part of the proposals.

Plan 5826/ECO1:

Site Location



Key:



Site Location

aspect ecology

Aspect Ecology Limited - West Court - Hardwick Business Park
Norral Way - Banbury - Oxfordshire - OX16 2AF
01295 279721 - info@aspect-ecology.com - www.aspect-ecology.com

Victoria Quarter, New Barnet PROJECT

Site Location TITLE

5826/ECO1 DRAWING NO.

- REV.

March 2020 DATE



Plan 5826/ECO2:

Ecological Designations



Plan 5826/ECO3:

Habitats and Ecological Features



Key:

- Site Boundary
- Temporary Water (Bare Ground)
- Re-colonising Ruderal Vegetation
- Bare / Cleared Ground
- Tree
- Building
- Hardstanding
- Rubbish/Rubble Pile
- Root Membrane Location
- Offsite Japanese Knotweed Material (refer to text for details)

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Victoria Quarter, New Barnet PROJECT

Habitats and Ecological Features TITLE

5826/ECO3 DRAWING NO.

REV.

March 2020 DATE



Plan 5826/ECO4:

Bat Survey Plan



- Key:
- Site Boundary
 - Building (negligible potential suitability for bats)
 - Building (low potential suitability for bats)
 - Surveyor location (dusk survey)
 - Surveyor location (dawn survey)



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Victoria Quarter, New Barnet

PROJECT

Bat Survey Plan

TITLE

5826/ECO4

DRAWING NO.

- REV.

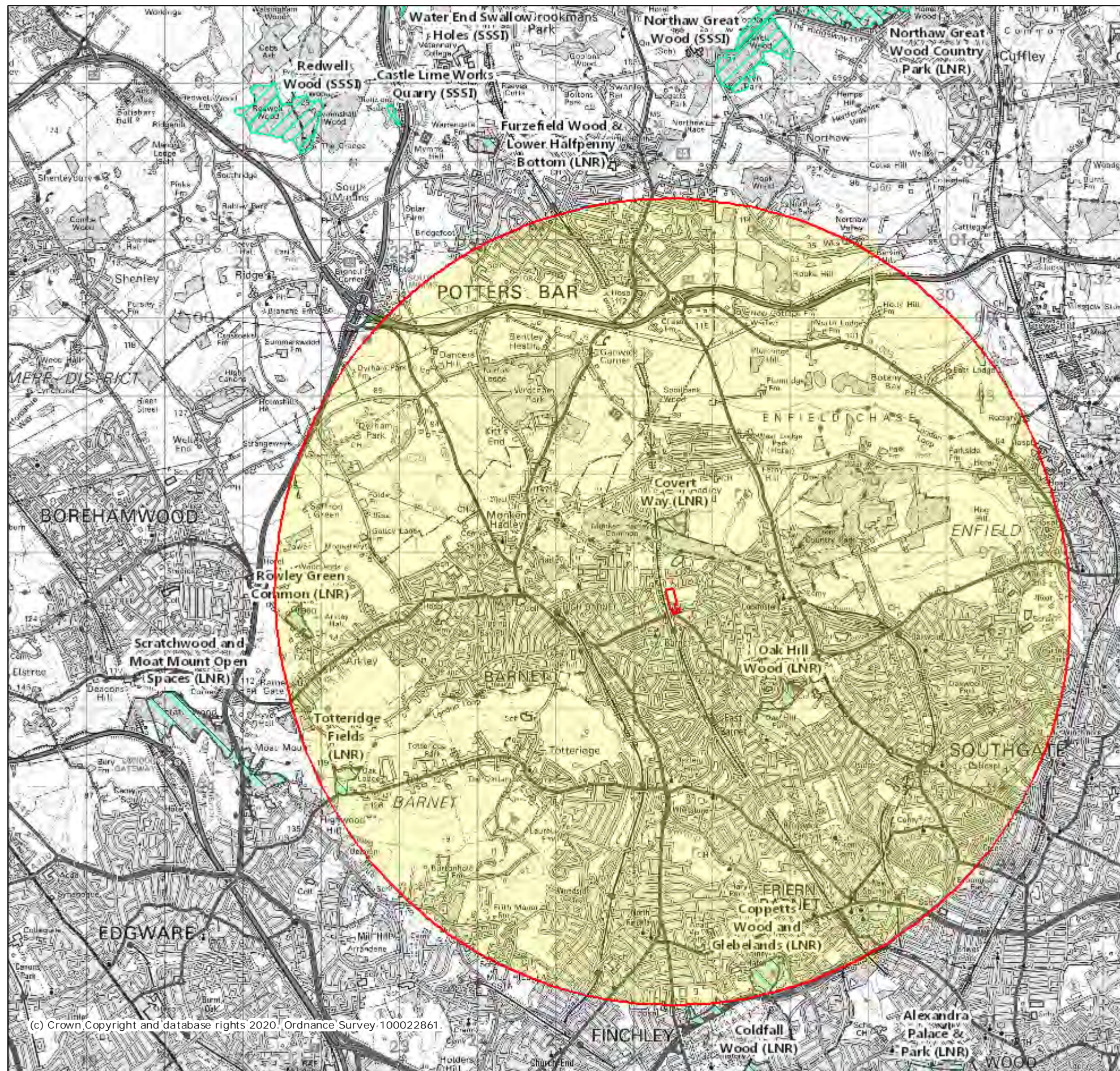
June 2021

DATE



Appendix 5826/1:

Desktop Study Data



Legend

- Local Nature Reserves (England)
- National Nature Reserves (England)
- Sites of Special Scientific Interest (England)

Projection = OSGB36

xmin = 513900

ymin = 191200

xmax = 536500

ymax = 203100



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15/03/2020

Site Check Report Report generated on Sun Mar 15 2020
You selected the location: Centroid Grid Ref: TQ26489644
The following features have been found in your search area:

SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)

1. DOES PLANNING PROPOSAL FALL INTO ONE OR MORE OF THE CATEGORIES BELOW? **2. IF YES, CHECK THE CORRESPONDING DESCRIPTION(S) BELOW. LPA SHOULD CONSULT NATURAL ENGLAND ON LIKELY RISKS FROM THE FOLLOWING:**

All Planning Applications

Infrastructure

Airports, helipads and other aviation proposals.

Wind & Solar Energy

Minerals, Oil & Gas

Oil & gas exploration/extraction.

Rural Non Residential

Residential

Rural Residential

Air Pollution

Livestock & poultry units with floorspace > 500m², slurry lagoons > 4000m².

Combustion

General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.

Waste

Composting

Discharges

Water Supply

Notes 1

Notes 2

GUIDANCE - How to use the Impact Risk Zones

[/Metadata_for_magic/SSSI IRZ User Guidance MAGIC.pdf](#)

15/03/2020

Site Check Report Report generated on Sun Mar 15 2020
You selected the location: Centroid Grid Ref: TQ26499636
The following features have been found in your search area:

Local Nature Reserves (England) - points

| | |
|-----------|---|
| Reference | 1009273 |
| Name | COPPETTS WOOD AND GLEBELANDS |
| Hectares | 20 |
| Hyperlink | https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1009273 |
| Reference | 1008851 |
| Name | COVERT WAY |
| Hectares | 6.77 |
| Hyperlink | https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1008851 |
| Reference | 1009109 |
| Name | ROWLEY GREEN COMMON |
| Hectares | 5.82 |
| Hyperlink | https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1009109 |
| Reference | 1009141 |
| Name | TOTTERIDGE FIELDS |
| Hectares | 6.92 |
| Hyperlink | https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1009141 |
| Reference | 1009274 |
| Name | OAK HILL WOOD |
| Hectares | 9.88 |
| Hyperlink | https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1009274 |

Local Nature Reserves (England)

| | |
|-----------|---|
| Reference | 1009273 |
| Name | COPPETTS WOOD AND GLEBELANDS |
| Hectares | 20 |
| Hyperlink | https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1009273 |
| Reference | 1008851 |
| Name | COVERT WAY |
| Hectares | 6.77 |
| Hyperlink | https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1008851 |
| Reference | 1009109 |
| Name | ROWLEY GREEN COMMON |
| Hectares | 5.82 |
| Hyperlink | https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1009109 |
| Reference | 1009141 |
| Name | TOTTERIDGE FIELDS |
| Hectares | 6.92 |
| Hyperlink | https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1009141 |
| Reference | 1009274 |
| Name | OAK HILL WOOD |
| Hectares | 9.88 |
| Hyperlink | https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1009274 |

National Nature Reserves (England) - points

No Features found

National Nature Reserves (England)

No Features found

Sites of Special Scientific Interest (England) - points

No Features found

Sites of Special Scientific Interest (England)

No Features found

15/03/2020

Site Check Report Report generated on Sun Mar 15 2020
You selected the location: Centroid Grid Ref: TQ26469639
The following features have been found in your search area:

Ramsar Sites (England) - points

| | |
|------------------|------------|
| Name | LEE VALLEY |
| Reference | UK11034 |
| Hectares | 451.3 |

Ramsar Sites (England)

| | |
|------------------|------------|
| Name | LEE VALLEY |
| Reference | UK11034 |
| Hectares | 451.3 |

Special Areas of Conservation (England) - points

| | |
|------------------|---|
| Name | WIMBLEDON COMMON |
| Reference | UK0030301 |
| Hectares | 351.38 |
| Hyperlink | http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?eucode=UK0030301 |

| | |
|------------------|---|
| Name | WORMLEY-HODDESDONPARK WOODS |
| Reference | UK0013696 |
| Hectares | 335.99 |
| Hyperlink | http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?eucode=UK0013696 |

| | |
|------------------|---|
| Name | EPPING FOREST |
| Reference | UK0012720 |
| Hectares | 1628.87 |
| Hyperlink | http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?eucode=UK0012720 |

| | |
|------------------|---|
| Name | RICHMOND PARK |
| Reference | UK0030246 |
| Hectares | 846.43 |
| Hyperlink | http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?eucode=UK0030246 |

Special Areas of Conservation (England)

| | |
|------------------|---|
| Name | WIMBLEDON COMMON |
| Reference | UK0030301 |
| Hectares | 351.38 |
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| | |
|------------------|---|
| Name | WORMLEY-HODDESDONPARK WOODS |
| Reference | UK0013696 |
| Hectares | 335.99 |
| Hyperlink | http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?eucode=UK0013696 |

| | |
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| Name | EPPING FOREST |
| Reference | UK0012720 |
| Hectares | 1628.87 |
| Hyperlink | http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?eucode=UK0012720 |

| | |
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| Name | RICHMOND PARK |
| Reference | UK0030246 |
| Hectares | 846.43 |
| Hyperlink | http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?eucode=UK0030246 |

Special Protection Areas (England) - points

| | |
|------------------|------------|
| Name | LEE VALLEY |
| Reference | UK9012111 |
| Hectares | 451.3 |

Special Protection Areas (England)

| | |
|------------------|------------|
| Name | LEE VALLEY |
| Reference | UK9012111 |
| Hectares | 451.3 |

Proposed Ramsar Sites (England) - points
No Features found

15/03/2020

Proposed Ramsar Sites (England)

No Features found

Possible Special Areas of Conservation (England) - points

No Features found

Possible Special Areas of Conservation (England)

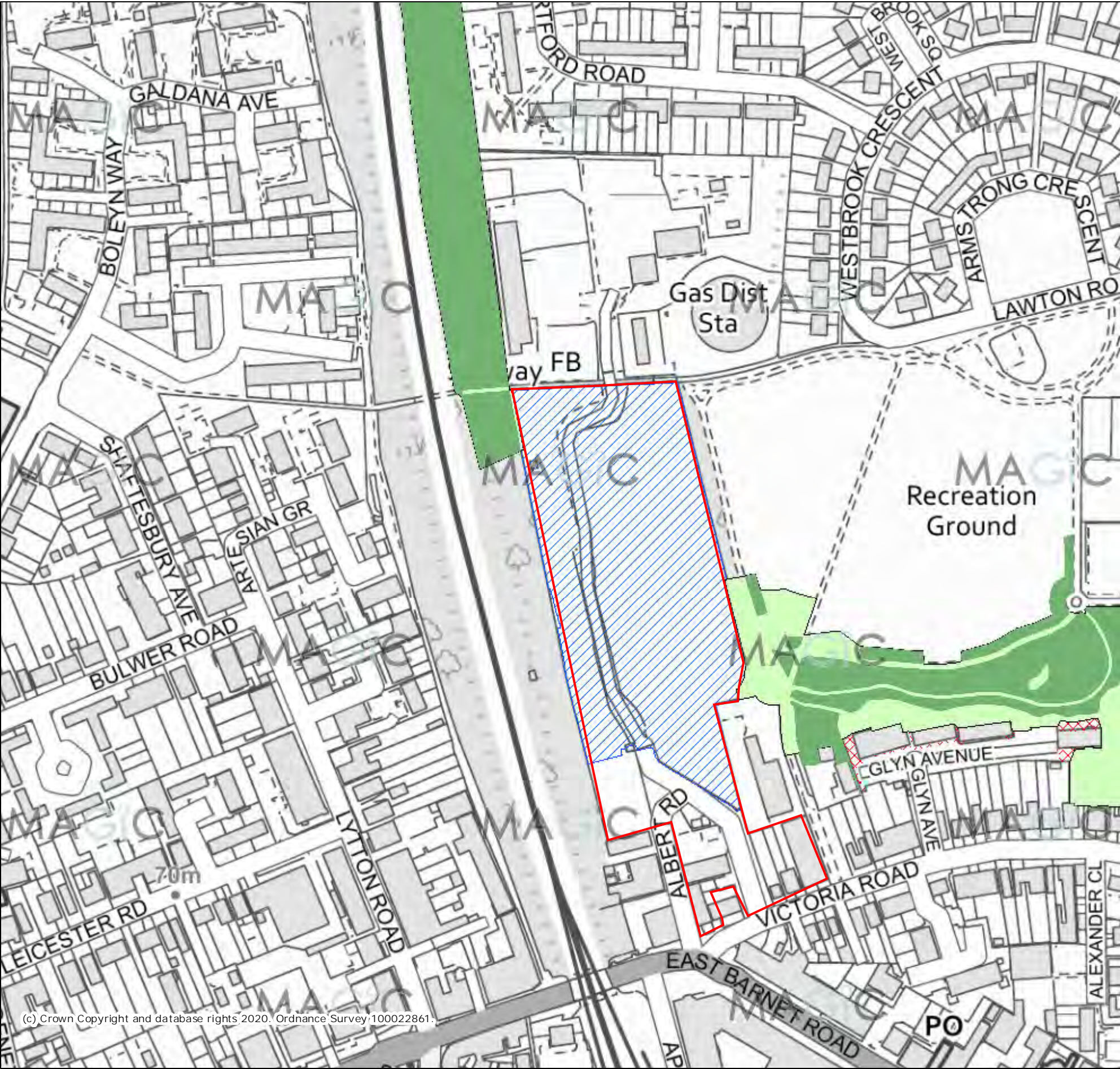
No Features found

Potential Special Protection Areas (England) - points

No Features found

Potential Special Protection Areas (England)

No Features found



Legend

- Priority Habitat Inventory - Coastal Saltmarsh (England)
- Priority Habitat Inventory - Coastal Sand Dunes (England)
- Priority Habitat Inventory - Coastal Vegetated Shingle (England)
- Priority Habitat Inventory - Maritime Cliffs and Slopes (England)
- Priority Habitat Inventory - Mudflats (England)
- Priority Habitat Inventory - Saline Lagoons (England)
- Saline Lagoons (Wales)
- Saltmarsh (Wales)
- Sand Dunes (Wales)
- Priority Habitat Inventory - Calaminarian Grassland (England)
- Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England)
- Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England)
- Priority Habitat Inventory - Lowland Calcareous Grassland (England)
- Priority Habitat Inventory - Lowland Dry Acid Grassland (England)
- Priority Habitat Inventory - Lowland Meadows (England)
- Priority Habitat Inventory - Purple Moor Grass and Rush Pasture (England)
- Priority Habitat Inventory - Upland Calcareous Grassland (England)
- Priority Habitat Inventory - Upland Hay Meadows (England)
- Priority Habitat Inventory - Lowland Heathland (England)
- Priority Habitat Inventory - Mountain Heaths and Willow Scrub (England)
- Priority Habitat Inventory - Upland Heathland (England)
- Priority Habitat Inventory - Limestone Pavements (England)

Projection = OSGB36
xmin = 525900
ymin = 196100
xmax = 526900
ymax = 196700
0 0.05 0.1
km

Map produced by MAGIC on 15 March, 2020.
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Appendix 5826/2

Evaluation Methodology

Evaluation Methodology

1. The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (2018)¹.

Importance of Ecological Features

2. Ecological features within the site/study area have been evaluated in terms of whether they qualify as 'important ecological features'. In this regard, CIEEM guidance states that *"it is not necessary to carry out detailed assessment of features that are sufficiently widespread, unthreatened and resilient to project impacts and will remain viable and sustainable"*.
3. Various characteristics contribute to the importance of ecological features, including:
 - Naturalness;
 - Animal or plant species, sub-species or varieties that are rare or uncommon, either internationally, nationally or more locally, including those that may be seasonally transient;
 - Ecosystems and their component parts, which provide the habitats required by important species, populations and/or assemblages;
 - Endemic species or locally distinct sub-populations of a species;
 - Habitat diversity;
 - Habitat connectivity and/or synergistic associations;
 - Habitats and species in decline;
 - Rich assemblages of plants and animals;
 - Large populations of species or concentrations of species considered uncommon or threatened in a wider context;
 - Plant communities (and their associated animals) that are considered to be typical of valued natural/semi-natural vegetation types, including examples of naturally species-poor communities; and
 - Species on the edge of their range, particularly where their distribution is changing as a result of global trends and climate change.
4. As an objective starting point for identifying important ecological features, European, national and local governments have identified sites, habitats and species which form a key focus for biodiversity conservation in the UK, supported by policy and legislation. These are summarised by CIEEM guidance as follows:

Designated Sites

- Statutory sites designated or classified under international conventions or European legislation, for example World Heritage Sites, Biosphere Reserves, Wetlands of International Importance (Ramsar sites), Special Areas of Conservation (SAC), Special Protection Areas (SPA);

¹ CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine', Chartered Institute of Ecology and Environmental Management, Winchester

- Statutory sites designated under national legislation, for example Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR);
- Locally designated wildlife sites, e.g. Local Wildlife Sites (LWS).

Biodiversity Lists

- Habitats and species of principal importance for the conservation of biodiversity in England and Wales (largely drawn from UK BAP priority habitats and priority species), often referred to simply as Priority Habitats / Species;
- Local BAP priority species and habitats.

Red Listed, Rare, Legally Protected Species

- Species of conservation concern, Red Data Book (RDB) species;
- Birds of Conservation Concern;
- Nationally rare and nationally scarce species;
- Legally protected species.

5. In addition to this list, other features may be considered to be of importance on the basis of local rarity, where they enable effective conservation of other important features, or play a key functional role in the landscape.

Assigning Level of Importance

6. The importance of an ecological feature should then be considered within a defined geographical context. Based on CIEEM guidance, the following frame of reference is used:
 - International (European);
 - National;
 - Regional;
 - County;
 - District;
 - Local (e.g. Parish or Neighbourhood);
 - Site (not of importance beyond the immediate context of the site).
7. Features of 'local' importance are those considered to be below a district level of importance, but are considered to appreciably enrich the nature conservation resource or are of elevated importance beyond the context of the site.
8. Where features are identified as 'important' based on the list of key sites, habitats and species set out above, but are very limited in extent or quality (in terms of habitat resource or species population) and do not appreciably contribute to the biodiversity interest beyond the context of the site, they are considered to be of 'site' importance.
9. In terms of assigning the level of importance, the following considerations are relevant:

Designated Sites

10. For designated sites, importance should reflect the geographical context of the designation (e.g. SAC/SPA/Ramsar sites are designated at the international level whereas SSSIs are designated at the national level). Consideration should be given to multiple designations as appropriate (where an area is subject to differing levels of nature conservation designations).

Habitats

11. In certain cases, the value of a habitat can be measured against known selection criteria, e.g. SAC selection criteria, 'Guidelines for the selection of biological SSSIs' and the Hedgerows Regulations 1997. However, for the majority of commonly encountered sites, the most relevant habitat evaluation will be at a more localised level and based on relevant factors such as antiquity, size, species-diversity, potential, naturalness, rarity, fragility and typicalness (Ratcliffe, 1977). The ability to restore or re-create the habitat is also an important consideration, for example in the case of ancient woodland.
12. Whether habitats are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Habitats of Principal Importance' or 'Priority Habitats', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular habitat under a BAP does not in itself imply any specific level of importance.
13. Habitat inventories (such as habitat mapping on the MAGIC database) or information relating to the status of particular habitats within a district, county or region can also assist in determining the appropriate scale at which a habitat is of importance.

Species

14. Deciding the importance of species populations should make use of existing criteria where available. For example, there are established criteria for defining nationally and internationally important populations of waterfowl. The scale within which importance is determined could also relate to a particular population, e.g. the breeding population of common toads within a suite of ponds or an otter population within a catchment.
15. When determining the importance of a species population, contextual information about distribution and abundance is fundamental, including trends based on historical records. For example, a species could be considered particularly important if it is rare and its population is in decline. With respect to rarity, this can apply across the geographic frame of reference and particular regard is given to populations where the UK holds a large or significant proportion of the international population of a species.
16. Whether species are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Species of Principal Importance' or 'Priority Species', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular species under a BAP does not in itself imply any specific level of importance.
17. Species populations should also be considered in terms of the potential zone of influence of the proposals, i.e. if the entire species population within the site and surrounding area were to be affected by the proposed development, would this be of significance at a local, district, county or wider scale? This should also consider the foraging and territory ranges of individual species (e.g. bats roosting some distance from site may forage within site whereas other species such as invertebrates may be more sedentary).

Appendix 5826/3

Ecological enhancement measures

Key principles for Green Roof creation

Example bat boxes/units

Example bird boxes

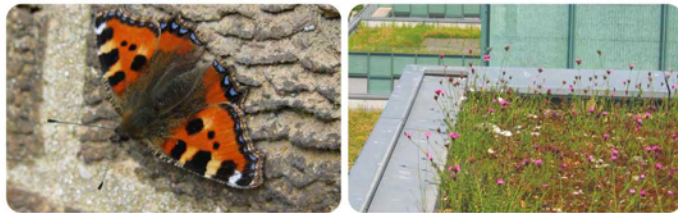
Hibernacula / Log piles

Key Principles for Green Roof Creation

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



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



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



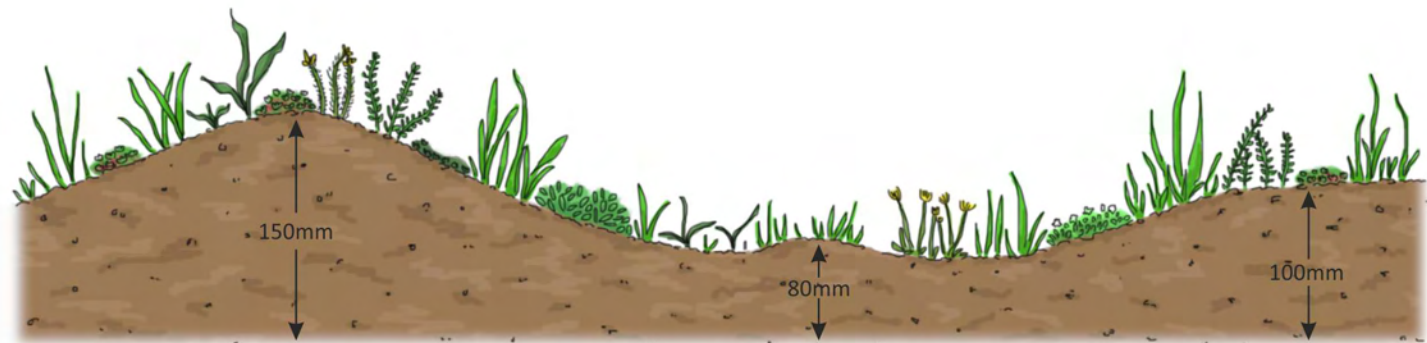
Green roofs can be left to establish naturally, or can be planted with wildflowers, either by seeding and/or plug planting. Planting should comprise locally appropriate native seeds/plants that are matched to the substrate type, pH and desired habitat. The inclusion of fast germinating annual species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



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



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



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

Bat Boxes

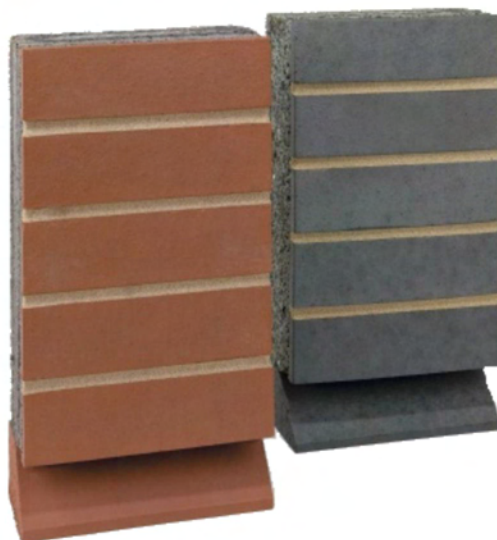
Habibat/Weinerberger Integrated Bat Box

The Habibat/Weinerberger Bat Box has been specifically designed to be incorporated into the fabric of buildings and to encourage the use by species such as Pipistrelles, Natterer's, Whiskered and Brandt's bats which are most commonly found roosting in buildings.

They are larger in size than other similar boxes and can accommodate more bats. The internal structure is not split into chambers and with the unique arrow head internal fixings allows bats to congregate in different areas. The box is available in either Staffordshire Smooth Red or Smooth Blue but can also be manufactured to suit any other brick type.

Dimensions:

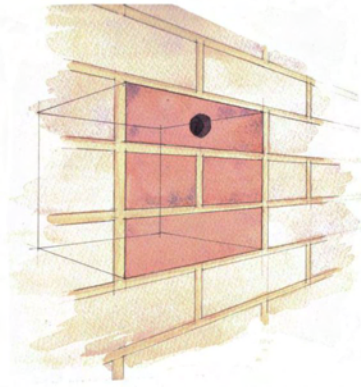
102mm (d) x 215mm (w) x 440mm (h).



Bird Boxes

The Bird Brick Box is a cleverly designed bird box, that provides a permanent nesting site for hole-nesting birds, as an integral part of the fabric of a building.

Bird Brick Box



The Bird Brick Box is a large, solid box made of insulating concrete with an internal nesting space, which can be incorporated into the fabric of a building as it is built or renovated. The box is designed to be both unobtrusive and aesthetically pleasing.

Swift Brick Box

Entrance dimensions: 33 x 65 mm



Sparrow Brick Box

* Height: 215 mm* Depth: 135 mm

* Width: 215 mm* Hole diameter: 32 mm

Starling Brick Box

* Height: 215 mm* Depth: 135 mm

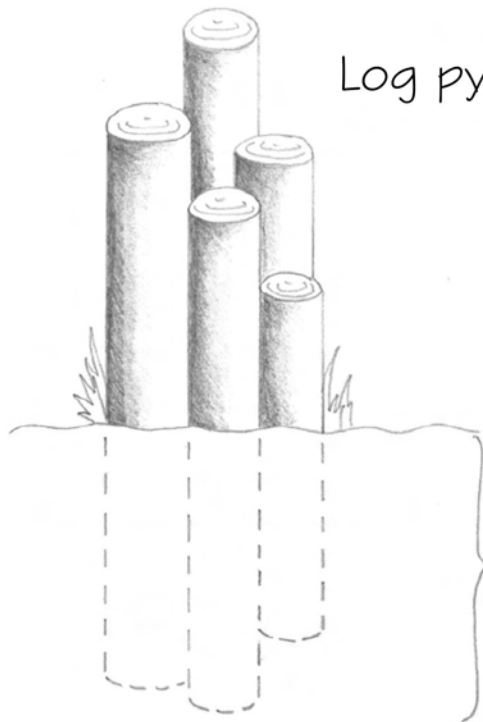
* Width: 215 mm



The brick boxes are faced in standard Staffordshire Smooth brick (Red or Blue), and are ideal for new builds. They are supplied unpointed so they can be matched as closely as possible to the building. Some designs can be made to order and faced in brick to match your building.

Buried “Loggery”

Dead and decaying wood is an important wildlife habitat, used by many species of beetle and other invertebrates



Log pyramid suitable for small gardens

Ground level

approx 50cm deep



Image taken from the London Wildlife Trust publication: Stag Beetle: an advice note for its conservation in London, 2000.

Create a “loggery”, by simply partially burying hardwood logs (with bark still attached) c.60cm into the ground, packing logs as closely together as possible. Position in partially shaded areas to prevent dessication. Avoid making log piles too high, or the timber will dry out. The logs should be at least the thickness of an adult’s arm (10-50cm diameter).

Wood from any broad leaved tree can be used, but oak, beech or fruit trees (such as apple/pear) are best, as these support the richest insect communities.

A buffer zone should be created around the logs so that the soils and vegetation are protected as much as possible from disturbance, and ideally the surrounding vegetation should not be cut between May-September. Allowing plants to grow over the log pyramid both retains moisture and provides shade for invertebrate species.

ecology • landscape planning • arboriculture

The logo for Aspect Ecology, featuring the word "aspect" in a white, lowercase, sans-serif font. A thin, light grey diagonal line is positioned above the "t", extending from the top of the letter to the right.

aspect

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