SYNTEGRA CONSULTING

Squirrels Estate,
Viveash Close,
Hayes, UB3 4RZ

Preliminary Ecological Assessment Report

August 2022

Ref: 21-8770

Quality Standards Control

The signatories below verify that this document has been prepared in accordance with our quality control requirements. These procedures do not affect the content and views expressed by the originator.

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Revision	-
Date	25/08/2022
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Note

The advice which we have prepared and provided within this report is in accordance with the CIEEM Code of Professional Conduct. We confirm that the opinions expressed are our true and professional opinions. Opinions and information provided in the report are based on Syntegra Group Ltd using reasonable skill, care and diligence in the preparation of the same in compliance with the CIEEM Code of Professional Conduct.

LIMITATIONS

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The conclusions and recommendations contained in this report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested and that such information is accurate. Information obtained by SC has not been independently verified by SC, unless otherwise stated in the report.

The methodology adopted and the sources of information used by SC in providing its services are outlined in this report. The work described in this report was undertaken in **2022** and is based on the conditions encountered and the information available during the said period of time. The scope of this report and the services are accordingly factually limited by these circumstances.

Where assessments of works or costs identified in this report are made, such assessments are based upon the information available at the time and where appropriate are subject to further investigations or information which may become available.

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Forecast cost estimates do not include such costs associated with any negotiations, appeals or other non-technical actions associated with the agreement on measures to meet the requirements of the authorities, nor are potential business loss and interruption costs considered that may be incurred as part of any technical measures.

EXECUTIVE SUMMARY

Purpose	Planning permission is being sought for the development of Squirrels Estate, Viveash Close, Hayes, UB3 4RZ for the purpose of a mixed use development of 116 dwellings and ground level commercial premises along with public realm delivery of Green Super Highway with associated landscaping, access, and parking following demolition of existing buildings. A Preliminary Ecological Appraisal (PEA) of the site was commissioned to support the application for planning permission on the site.
Results	The potential and the presence for protected species was quantified within the site. The following ecological receptors present included: ○ Habitats on site are of low to moderate value for foraging and traversing bats; ○ Habitats on site are suitable for a range of nesting bird species;
Recommendations	○ Further nesting bird survey ahead of works commencing in the nesting season (generally March to August inclusive). ○ Implement precautions to prevent nocturnal mammals becoming trapped on site; ○ Enhance the site to provide additional opportunities for protected species. ○ Pollution prevention measures will be required to ensure no spills, debris, or materials enter the nearby SINCs.

1. INTRODUCTION AND AIMS

1.1 Syntegra Group was commissioned by the applicant, Mackenzie Homes Ltd, to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at Squirrels Estate, Viveash Close, Hayes, UB3 4RZ (Grid ref: TQ 09855 79283).

1.2 This report has been prepared in support of the application being submitted by Mackenzie Homes Ltd ('The Applicant') to London Borough of Hillingdon ('the Council') for the development of Squirrels Estate, Viveash Close, Hayes, UB3 4RZ ('the site').

1.3 The objectives of this PEA and PRA were to:

- Map the main ecological features within the site and compile a plant species list for each habitat type;
- Make an initial assessment of the presence or likely absence of species of conservation concern, survey the buildings on site, and identify the presence or likely absence of bats and nesting birds;
- Identify any legal and planning policy constraints relevant to nature conservation which may affect the development;
- Determine any potential further ecological issue;
- Determine the need for further surveys and mitigation; make recommendations for minimising impacts on biodiversity and providing net gains in biodiversity, where possible, in accordance with Section 15: Conserving and Enhancing the Natural Environment, of the National Planning Policy Framework (NPPF) (DfCLG,2021), Policy EM7 - Hillingdon Local Plan: Part 1 - Strategic Policies (Adoption version), and G6 of The London plan (GLA, 2021).

1.4 The site survey was undertaken by Aaron Stuart BSc, a suitably qualified ecologist, on the 10th of August 2022. Weather conditions were suitable with 10% cloud cover, a slight breeze, and no rain. The timing of the survey was within the optimal surveying month of August.

1.5 The site comprises of a collection of two blocks of commercial buildings set within hard-standing. At the time of the survey the grounds were under a moderate level of management and maintenance.

1.6 The proposals are for the erection of part 11 storey, part 10 storey mixed use building comprising 116 residential dwellings and ground level commercial premises along with public realm delivery of Green Super Highway with associated landscaping, access, and parking, following demolition of existing buildings

2. METHODOLOGY

Preliminary Ecological Appraisal

2.1 The methods outlined in the CIEEM Guidance for Preliminary Ecological Appraisals (2017) were used for this survey. The field survey was carried out with the industry standard and mapped using JNCC Classification (2010). This is a standard technique for obtaining baseline ecological information for areas of land, including proposed development sites.

2.2 Incidental records of fauna were also made during the survey and the habitats identified were evaluated for their potential to support legally protected species, other species of conservation concern and any listed species of principal importance under the NERC Act (2006). When appraising the overall potential of protected species during the survey, the habitat(s) on site were assessed as present, high, moderate, low, and negligible.

2.3 The survey included habitats within the proposed site boundary, and adjacent habitats up to 30m around the red line boundary where applicable.

2.4 Invasive species listed under Schedule 9 of the Wildlife Countryside Act (1981 as amended) were searched for and recorded.

2.5 The survey was undertaken by Aaron Stuart BSc, an ecologist at Syntegra Group who follows CIEEM institutes Code of Professional conduct when undertaking surveys (CIEEM, 2022).

Desktop Study

2.6 Syntegra Consulting undertook a basic internet-based search of statutory designated sites and protected species licenses within 1km of the site using the Natural England/DEFRA web-based MAGIC database (www.MAGIC.gov.uk) for MAGIC. The client has also issued a local biological record search from GiGL (GiGL, 2022) to support the report.

2.7 Ordnance survey maps and aerial images of the site were examined online using bing.com/maps and maps.google.co.uk.

2.8 The Local Plan (London Borough of Hillingdon) and London Plan (GLA, 2021) were consulted for details on policies relevant to designated sites, protected species, and general ecology protection.

Zone of Influence (ZoI)

2.9 The ZoI is used to assess any potential direct and indirect impacts or risks to the site and the immediate surrounding habitats. The ZoI is also used to determine the feasibility for enhancements for the site and within the surrounding areas/habitats. The ZoI is based on the following: the site itself, the areas directly adjacent to the site and areas up to 1km outside of the site including statutory and non-statutory designated sites. The ZoI looks for potential impacts to habitats and species with possible connectivity to the site itself.

Preliminary Roost Assessment and Preliminary Ground Level Tree Roost Assessment

2.10 The surveys were carried out by Aaron Stuart BSc, Assistant Ecologist at Syntegra Group, an experienced ecologist who has undergone professional training in bat surveying techniques and undertaken numerous preliminary roost assessments. The survey followed guidelines by the Bat Conservation Trust (2016) Bat Surveys Good Practice Guidelines 3rd edition. The buildings and trees were assessed as either negligible, low, moderate, high, or confirmed, refer to table 1 below. The tree inspections were carried out during the sub-optimal period for surveying, with the trees generally having dense foliage.

Table 1. Roost Classification, adapted from Collins 2016

Category	Description of Roosting Habitat	Number of Surveys Required
Negligible	Little to no suitable locations for roosting, not ideal for supporting bats.	No further surveys.
Low	A structure or tree with one or more potential roosting spaces that could be used by opportunistic individuals. The features and surrounding habitats do not provide enough suitable conditions and or space for use as a maternity or hibernation roost. A tree that could contain potential roosting features but not observed from ground.	One Survey carried out between the May and August (dusk or dawn).
Moderate	A structure or tree with one or more potential roosting spaces that could be use by individuals based on the features (size, shelter, conditions, and surrounding habitat) but unlikely to support a roost of high conservation value.	Two further surveys (one dusk and one dawn, spaced two weeks or more) between May-September with one survey between May and August.

High	A structure or tree with one or more potential roosting spaces that are suitable for use regular use and/or larger numbers of bats for a more prolonged period due to the conditions and surrounding habitats. A tree with one or more potential roost sites suitable for use by a larger number of bats.	Three further surveys (at least one dawn) carried out between May to September with two undertaken between May to August. The surveys must be undertaken two weeks apart, spaced surveys are preferred.
Confirmed	Positive evidence of bats - i.e. droppings, individuals, or bat records.	

3. CONSTRAINTS

3.1 The surveys were undertaken within the optimal period in the year for botanical surveys, although some short-lived annual species may be not have been identified. It is considered that no rare or threatened plant species are present on the site. Consequently, the timing of the survey does not significantly impact upon the findings detailed in this report as the ecologist was able to classify and assess the value of the habitats on site. It is possible that certain flowering herbs and or ephemerals may have not been recorded during the summer survey and an extensive species list was not obtained but it is considered that the species characteristic to the habitats on site were recorded. The survey provides a snapshot of the site and does not show seasonal differences. Ecological surveys are limited by factors that affect the presence of plants and animals such as activity levels at time of year, weather, migration patterns, and behaviour. The survey was undertaken in August and represents a valid sample of ecological evidence present on that date. This report is not designed, nor is it required to, present a complete inventory of flora/fauna.

3.2 The daytime inspection was conducted in August, a period when young bats begin to catch insects for themselves and no longer need their mothers' milk. The summer maternity colonies begin to disperse, and bats may move to mating roosts (BCT Guidelines, 2016). Whilst evidence of roosting can be confirmed by a daytime inspection, very often features that could support bats cannot be searched thoroughly to confirm whether bats are indeed roosting.

3.3 The tree inspections were undertaken during the sub-optimal surveying period, when most trees have foliage obscuring features. Whilst every effort was made to complete a full tree roost assessment, potential roosting features, and/or signs of bat presence may not have been visible from the ground. As such, it is possible that not all trees offering bat roost potential and/or

hosted actual bat roosts were recorded. However, the potential for use within the onsite trees was established.

3.4 There are 7 units in total. No internal access was permitted to units 1-6, however internal access was granted to unit 7 for the Preliminary Roost Assessment. There are two blocks of units, a northern block (B1) and an eastern block (B2). Unit 7 (part of the B2) had no roof space, however it was not possible to assess if any of the other units do or do not have roof voids/ roof spaces. The external survey found no suitable potential roosting features or access points and both blocks were graded as having negligible potential for roosting bats.

3.5 The client requested a local biological records search. Exact locations of any sensitive data have not been disclosed in the report.

3.6 The client is responsible for reading and understanding the advice given in this report. The client must ensure that, where recommended, avoidance, mitigation, and compensation is followed through

4. RESULTS

Extended Phase 1 Survey

4.1 The site comprises of two blocks of units (referred to in this report as B1 and B2) within hard standing ground with areas of introduced shrub and trees. At the time of the survey the grounds were under a moderate level of management and maintenance.

4.2 The site is rectangular in shape and is approximately 3260m² in size. The wider landscape comprises of urban land consisting of further residential and commercial buildings, railway line, building sites, major and minor roads, pockets of woodland and a river to the north.

Figure 1. Image of the Site with Red Line Boundary within the Wider Landscape.

4.3 All habitats identified on site are described in Table 2 (below) together with a preliminary assessment of their potential to support notable species, protected species, and LBAP Priority Habitats and Species. The table also evaluates potential impacts relative to the proposed development. The locations and extent of habitats are shown within Appendix I: Extended Phase 1 Habitat Survey Map.

Table 2. Habitat Descriptions and Evaluation

J4 – Bare Ground	
The grounds mainly consist of brick paving. There is a strip of gravel with emergent vegetation north of B2. Species include: Fireweed (*Chamaenerion angustifolium*)	**Brick paving outside B2**  **Gravel with emergent vegetation north of B2** 
Potential constraints: The developed land is of negligible value to local wildlife and biodiversity. The small area of fireweed offers limited foraging opportunities for local invertebrate populations. It is considered that works to this habitat will not result in a significant impact to local wildlife and biodiversity.	
J3.6 – Buildings	
There are two blocks of units. The northern block (referred to as B1) and the eastern block (referred to as B2). There was a small, emergent buddleia to the east of B1.	**External view of B2** 
Potential constraints: Both B1 and B2 have **negligible** potential to support roosting bats. The preliminary roost assessment details the buildings and their constraints in greater detail. It is considered that works to this habitat will not result in a significant impact to local wildlife and biodiversity. Species include: Buddleia (*Buddleja davidii*)	

	External view of B1 
J2.4 – Fence	
The eastern boundary of the site is bound by a metal fence. Within the boundary is a dead tree (likely sycamore), as well as two young sycamores. Species observed include: Sycamore Maple (*Acer pseudoplatanus)*	**Eastern boundary fence** 
Potential constraints: The trees have **negligible** potential to support roosting bats. There are limited sheltering and foraging opportunities for birds and invertebrates. It is not considered that the works to this habitat will result in a significant impact to local wildlife and biodiversity.	
J1.4 – Introduced Shrub *J2.5 – Wall*	
The western boundary has three areas of introduced shrub, these consist or raised, brick walled beds. The largest bed is dominated by English Ivy and has a small crab apple tree. The second largest bed has two Silver Birch with cotoneaster and St John's Wort at the base of the trees. The smallest bed has a semi-mature Boxelder Maple with St John's Wort ground cover. Species observed include: Buddleia (*Buddleja davidii*), English Ivy *(Hedera helix),* St. John's Wort *(Hypericum calycinum), Small-leaved C*otoneaster *(Cotoneaster microphyllus)*, Crab Apple *(Malus*	

Sylvestris), Silver Birch *(Betula pendula),* Boxelder Maple *(Acer negundo).*	**Smallest walled bed with introduced shrub** 
Potential constraints: The habitat is of moderate ecological value. The trees and introduced shrub provide foraging and sheltering opportunities for invertebrates, birds, and small mammals. Although no nesting birds were observed during the survey, the trees could provide nesting opportunities for a range of species and works to these areas should take place outside of the nesting season (February – August), unless checked prior to works commencing by a suitably qualified ecologist. No potential bat roosting features were noted for any of the trees. The trees have negligible potential for roosting bats.	**Boxelder maple above smallest boundary bed**  **Medium sized walled bed with introduced shrub** 

	Birch trees growing out of medium sized walled bed  **Largest walled bed dominated by ivy** 
A3.1 – Scattered Trees	
There area south of B1 has two semi-mature common hornbeam as well as an autumn olive tree with English Ivy at the base. Species include: Common Hornbeam *(Carpinus betulus),* Autumn Olive *(Elaeagnus umbellate), English Ivy (Hedera helix)*	**Trees south of B1** 
Potential constraints: The habitat is of moderate ecological value. The trees provide foraging and sheltering	

opportunities for invertebrates, birds, and small mammals. Although no nesting birds were observed during the survey, the trees could provide nesting opportunities for a range of species and works to these areas should take place outside of the nesting season (March – August), unless checked prior to works commencing by a suitably qualified ecologist. No potential bat roosting features were visible within any of the trees. The trees have therefore been graded as having **negligible** potential for roosting bats.	

Preliminary Roost Assessment

4.4 The daytime external inspection consisted of two blocks of commercial units (B1 and B2). The exterior of the buildings were inspected for access points, crevice roosting opportunities, and evidence of bats and nesting birds. Any internal spaces which were accessible were inspected for access points, crevice roosting opportunities, and evidence of bats or nesting birds.

Figure 2. B1 and B2

4.5 B1 and B2 can best be described as commercial units with brick and corrugated metal walls with large shutters and corrugated metal roofs.

External Assessment

4.6 The buildings were in a very good state of repair with no notable potential roosting features. The walls and roofs were intact with no hole, missing sections, cracks, lifts and or recessed areas. Windows and doors were intact and set within frames with no gaps, holes and or recesses. The external survey found no suitable potential roosting features or access points and both blocks.

4.7 There was no evidence of nesting birds present on site, with no notable features for nesting birds.

Internal Assessment

4.8.1 Only permission for internal access was granted for unit 7 (part of B2). The internal inspection showed that there were no loft spaces or roof voids (see photo's 1 & 2 of appendix II). No evidence of bats in the form of droppings, feeding remains, scratches or urine stains were found. Walls and roof spaces were intact with no notable access or crevice roosting spaces. The unit was considered to be of **negligible** potential for roosting bats.

4.8.2 No internal access was granted for any of the other units.

Preliminary Ground Level Tree Roost Assessment

4.9 The ground level roost assessment (GLTA) was carried out in August when most trees have full foliage, making it difficult for tree's to be accurately assessed for their suitability for roosting bats. Trees were examined from the ground and evidence indicating the presence of bat roosts (i.e. droppings, scratch marks and/or staining) and potential features (i.e. holes, peeled bark, rot, dead wood, dense ivy) were searched for using binoculars.

4.10 Of the semi-mature and mature trees on site, all were deemed to have negligible bat roosting potential based on their age, structure and, form.

5. IMPACT ASSESSMENT

Statutory and Non-Statutory Sites

5.1 The GiGL record search has not returned any known statutory sites within 1km of the site. Extending the ZoI to 2km and use of DEFRA's MAGIC Maps, no known statutory sites were noted. No further consideration in regard to statutory sites for nature conservation are required.

5.2 The GiGL record search has returned the following non-statutory designated sites within 1km the site. Sites of Importance for Nature Conservation (SINC) are recognised by The Greater London Authority and Councils as sites that are considered to hold important features for wildlife. SINCs are categorised in the following ranking order: SINC of Metropolitan Importance, SINC of Borough Importance (I and II) and SINC of Local Importance. The site is within 1km of 4 SINCs. The closest SINC, M006, is located 190 metres north of the site.

Table 3. Sites of Importance for Nature Conservation (SINC)

Designation	Site Reference and Name	Location	Size	Qualifying Features
Metropolitan	M003: London Canals	TQ 202 833	189.66 ha	Supports a range of botanical species including: lude narrow-leaved water plantain (*Alisma lanceolatum*), rigid hornwort (*Ceratopyllum demersum*) and shining pondweed (*Potomageton lucens*). Canals also host a range of invertebrate fauna (including several species of dragon/damselflies), a diverse fish community, and breeding waterfowl.

Metropolitan	M076 Site Name: Crane Corridor	TQ 113 743	178.05ha	One of the most natural rivers in London. River Crane hosts uncommon aquatic plants such as arrowhead (*Sagittaria sagittifolia*), unbranched bur-reed (*Sparganium emersum*), river water-crowfoot (*Ranunculus fluitans*) and rigid hornwort (*Ceratophyllum demersu*m). At least four species of pondweed include the London rarity small pondweed (*Potamogeton berchtoldii*). Various damp pastures, old water meadows and associated ox-bow ponds also support a rich flora of regionally uncommon plants, including water-purslane (*Lythrum portula*), nodding bur-marigold (*Bidens cernua*), ivy-leaved crowfoot (*Ranunculus hederaceus*), meadow crane's-bill (*Geranium pratense*), marsh-marigold (*Caltha palustris*) and bog stitchwort (*Stellaria uliginosa*). Willow-alder woodland occurs in several places; this is a rare habitat in London. The breeding avifauna includes kingfisher, grey wagtail, and reed warbler. The specially protected water vole is also present.
Borough Grade I	HiBI11 Site Name: Yeading Brook, Minet Country Park and Hitherbroom Park	TQ 109 802	67.86ha	Minet Country Park partly comprises reclaimed derelict land. The flora of the disturbed soil includes pale persicaria (*Persicaria lapathifolia*), squirrel-tail fescue (*Vulpia bromoides)* and foxtail barley (*Hordeum jubatum*), whilst spiked sedge (*Carex spicata*) corn mint (*Mentha arvensis*) and musk mallow (*Malva moschata*) grow in the meadows. Damp and aquatic habitats include lesser reedmace (*Typha angustifolia*), water figwort (*Scrophularia auriculata*), water chickweed (*Myosoton aquaticum*), arrowhead (*Sagittaria sagittifolia*), pepper saxifrage (*Silaum silaus*), marsh woundwort (*Stachys palustris*) and fennel pondweed (*Potamogeton*

				pectinatus). Birds recorded include pheasant, snipe, kingfisher, skylark, whinchat, mistle thrush, Dartford, sedge, reed and willow warblers, linnet, redpoll, meadow pipit, hobby, bullfinch, reed bunting and common sandpiper. Grass snakes and smooth newts are both found at the site. The Essex skipper butterfly is abundant, and five nationally scarce species of water beetle have been recorded from seasonal ponds to the north of the site.
Borough Grade I	HiBI18 Site Name: Lake Farm Country Park	TQ 090 803	27.14ha	Diverse Grassland with unimproved grassland areas. Edges of the grassland inhabited by kestrels, and seasonal flocks of goldfinches. Areas of diverse scrub with emerging areas of wetland species.

5.3 The responsible removal of LISI buddleia & Wildlife and Countryside Act Sch9 small leaved cotoneaster will control future spread of these plants into the local and wider landscape. As good practice it is recommended that pollution prevention measures from GOV.UK (2016) are in place during construction to prevent any potential indirect impacts from the site to the SINCs within close proximity to the site. The further avoidance, mitigation, and compensation measures in place, along with biodiversity enhancements, will ensure that there are negligible impacts upon sites for nature conservation. See section 6.2 for further details.

Protected Habitats

5.4 No onsite habitats or habitats directly adjacent to the site boundaries qualify for habitats of principle importance under the Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. There is a pocket of Section 41 deciduous woodland within 220m of the eastern boundary of the site.

Planning Polices

5.5 The planning policies look to **paragraphs 174-182 of the National Plan Policy Framework (2021)**, in particular paragraph 174 (d), *'minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures'*; as well as paragraph 179 (b), *'promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity'*; and 180 (d), *'development whose primary objective is to conserve or*

enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate'. Policy EM7 - Hillingdon Local Plan: Part 1 - Strategic Policies (Adoption version) and policy G6 of The London Plan (GLA, 2021) were also referred to.

5.6 The site has moderate potential for use as nesting sites for local birds, negligible potential for use by roosting bats, moderate potential for use by foraging and traversing bats, moderate potential for use for use by foraging invertebrates, and negligible potential for hedgehogs, amphibians, and reptiles. The closest SINC is located 190m north of the redline boundary. In line with G6 of The London Plan and Policy EM7 of Hillingdon Local Plan, the application site must ensure retainment and enhancements for local biodiversity. Onsite mitigation measures for pollution prevent during the construction phase will ensure no indirect impacts to the M006 SINC within 190m of the site. The application site must ensure retainment and enhancements for local biodiversity. To compensate for the loss of habitats onsite, it is recommended that the landscape plan uses a mixture of wildlife friendly and native species, in line with the London Local Plan, use of DEFRA Metric once the final proposals are available would be beneficial to ensure net gains of 10% or more. The removal of LISI buddleia and W & CA Sch9 small-leaved cotoneaster will also be an overall positive impact as it will prevent future spread. Replacement with native species will encourage foraging by local invertebrates and in turn birds and bats. Any trees to be lost by the development should have new native species planted and it is recommended that it reflects what is currently on site. Within the established garden spaces of the site, insect hotels/bug boxes are recommended to provide future shelter sites and compensate for any loss from the proposed works. The future lighting on site must ensure a lighting plan that is direct, low light spill, low lux and have hooded designs. These prescribed avoidance, mitigation, and enhancement measures recommended within this report would ensure a retention of biodiversity, ensure net gain and would also meet the aims of biodiversity policies in London Plan and Hillingdon Local Plan.

Protected Species

Plants

5.7 All plant species recorded on the site are common and widespread, and it is considered that no rare or threatened plant species are present on the site. It is likely that some short-lived annual species were missed due to the timing of the survey. Small-leaved cotoneaster was found within the raised planters on the western boundary. Small-leaved cotoneaster is listed on Schedule 9 of the UK Wildlife & Countryside Act as an invasive species. Buddleia (*Buddleja davidii*) is also present, albeit in small amounts in two areas of the site, this is a category 2 London Invasive Species Initiative (LISI) plant. Both cotoneaster and buddleia should be removed during works. The removal of these species will be an overall enhancement to the onsite and offsite habitats. Landscape plans and regimes that include green roofs (non-sedum variety), native species including fruit bearing species, climbers such as honeysuckle and ivy would be attractive for use and benefit both local invertebrates and foraging birds and bats. Care should be given when

planting to avoid the introduction of invasive and non-native species to the site and advise the use of native species wherever possible.

Bats

5.8 All bat species are legally protected under Section 9 of the Wildlife and Countryside Act 1981 (as amended) and under Regulation 43 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. It is an offence to deliberately capture or kill a wild animal of a European protected species, deliberately disturb any such animal and/or to damage or destroy a breeding site or resting site making bats a material consideration in the planning process. The GiGL record search has returned only one record being *Pipistrellus pipistrellus*, located within 706m of the site.

5.9 In line with Bat Surveys: Good Practice Guidelines, published by the Bat Conservation Trust, buildings with negligible potential to support a roost do not require any additional surveys.

5.10 The site is considered to contain 'low to moderate' quality foraging habitat, as it largely comprises of hard standing grounds with areas of introduced shrub and trees. Given the wider landscape having suitable habitats, as well and linear features such as railway line and Grand Union Canal, it is likely that the local and winder landscape supports a range of species. These species include light sensitive species, more common, and often light tolerant pipistrelle bats. The site is within close proximity to a railway line, providing connectivity across the local and wider landscape, as such lighting proposals must ensure minimal light spill to avoid impacts on foraging and traversing bats. The proposals must incorporate an appropriately designed landscaping scheme, that will enhance the site for traversing and foraging bats and along with measures proposed in section 6.2, it is unlikely that the development will adversely affect local bat populations.

Birds

5.11 The site is characterised by hard standing with areas of introduced shrub and trees. The trees provide suitability for use by nesting birds. No signs of active or remnant nesting were noted at the time of the survey. The habitats on site host suitability for foraging birds. The site is deemed as having **site** importance for nesting and foraging birds.

5.12 The GiGL search has returned a variety of bird species within 1km of the site and include records of house sparrow, a s41 species within 414 metres of the site, along with kingfisher, a WCA Schedule 1 species within 684 metres. Records of other notable species within 1km include: swift, skylark, lapwing, fieldfare, starling lesser spotted woodpecker and little egret. Of the records, the closest record species was house sparrow, a section 41 species, UK BAP Species, London Local Species of Conservation Concern, and a red list species.

5.13 Of the recorded species within 1km of the site, the site itself would provide suitability for the more common 'garden' species such as house sparrow. The versatility of most bird species means they can utilise almost any habitats encountered, and it is considered that the habitats

on site could provide suitable habitat for nesting birds. It is recommended that clearance works to on site and works adjacent to suitable vegetation areas are carried outside of nesting bird season (March to August inclusive) or unless first checked by a suitably qualified ecologist. The loss of potential nesting sites will require compensation.

5.14 The proposals must incorporate an appropriately designed landscaping scheme that will enhance the site for nesting and foraging birds along with measures proposed in section 6.2. It is unlikely that the development will adversely affect local bird populations.

Badgers

5.15 Badgers (*Meles meles)* are legally protected under The Protection of Badgers Act 1992 and, as such, are of consideration when applying the principles of the NPPF (DfCLG, 2021). It is a criminal offence to:

- Wilfully kill, injure, or take any badger;
- Possess or cruelly ill-treat a badger;
- Possess any dead badger or part of one;
- Possess or control a living, healthy badger;
- Intentionally or recklessly damage, destroy or obstruct access to a sett, or disturb a badger whilst it is occupying a sett.

5.16 The GiGL records search returned no records within 1km for badgers. No evidence indicating that badgers have excavated setts on the site were found during the survey and no evidence of foraging or dispersal activity was found (e.g. snuffle holes, latrines, pathways, hair, feeding remains). No mammal holes were found onsite. Due to the site largely being comprised of buildings and hard standing it is considered there is negligible chance for badgers to be present on site.

5.17 Precautionary measures are advised for the works. Any holes, ditches, and or trenches must have a means of escape provided in the form of an inclined mammal ladder, as this will also seek to protect other smaller mammals.

Great Crested Newts

5.18 Great crested newts (GCN) are legally protected under section 9 of the Wildlife and Countryside Act 1981 (as amended) and regulation 43 of The Conservation of Habitats and Species Regulations (2017) thus making GCN a material consideration of the planning process.

5.19 From studying OS maps and aerial photographs, there are no visible ponds within 500m of the site. The habitats on site are of negligible value to GCN for foraging and shelter. The GiGL record search returned no records of GCN within 1km. Given the absence of ponds on site and within the wider landscape, combined with the area being of high-density urban form, it is extremely

unlikely that a population of great crested newts are within the local landscape. No further consideration is given for this species, and no further surveys or mitigation measures are required.

Reptiles

5.20 All native reptiles are legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

5.21 The site's habitats offer limited potential for foraging and sheltering opportunities as well as traversing grounds for local reptiles. The site itself consists mainly of buildings, hard standing and areas of gravel and is further bound by roads, reducing the overall potential for movement.

5.22 The GiGL record search has not returned any known occurrences or records within 1km of the site. It is considered unlikely that populations are located on site therefore, no further surveys or mitigation measures are required.

Hedgehogs

5.23 Hedgehog (*Erinaceus europaeus*) are protected under UK law by the Wildlife and Countryside Act 1981 (as amended) and are listed as a species of principle importance for biodiversity conservation in the Section 41 list of the NERC Act (2006).

5.24 The habitats present on site offer negligible to low potential to support populations of hedgehogs in the form of foraging, traversing grounds and shelter. The GiGL records search returned four records of hedgehogs within 1km with the nearest record 311m south west of the site.

5.25 During the works any holes, trenches, and/or ditches be supplied with an inclined mammal ladder to provide a means of escape. Implementation of raised fences or hedgehog gravel boards to create hedgehog highways will be an overall enhancement for the local hedgehog population.

Invertebrates

5.26 The site is likely to support a small amount of common invertebrate species, such as butterflies, moths, flies, bees, and beetles. The GiGL records returned four records of stag beetle within 1km, with the closest record being 195m north west of the site. It is not considered that any further surveys are required, however precautionary measures will be required in the event of removal of any dead wood such as log piles that may be present on site. Stag beetles are protected by UK and European law and are active above ground from mid-May to July. If a stag beetle larva is found during works, the larvae should be moved offsite to a suitable area. There, a hole should be dug, and the larvae is placed in the hole with old rotting wood from the original site. It should be covered loosely with soil.

5.27 The proposals must incorporate an appropriately designed landscaping scheme that will enhance the site along with measures proposed in section 6.2. It is unlikely that the development will adversely affect local invertebrate populations.

6. CONCLUSION

6.1 The proposals are for the erection of part 11 storey, part 10 storey mixed use building comprising 116 residential dwellings and ground level commercial premises along with public realm delivery of Green Super Highway with associated landscaping, access, and parking, following demolition of existing buildings. If any works carried out are preceded by the report recommendations, and any habitats lost during the works are offset elsewhere, the impacts of the works will be limited to negligible. These prescribed avoidance, mitigation, and enhancement measures recommended within this report would meet the aims of the biodiversity policies in the in the Local Plan, London Plan and NPPF.

6.2 The nature of the proposed development, with mitigation, and precautionary measures in place (**Table 4**), will ensure that the proposals will reduce any adverse impacts upon surrounding habitats, protected species, and wildlife in general. The following further methods are recommended:

Table 4. Potential Key Species/Habitats on Site and Proposed Avoidance, Mitigation, Compensation and Enhancement

Species/Habitats	Impact	Avoidance and Mitigation	Compensation and Enhancements
All	Potential pollution damage during construction works.	Preparation of robust CEMP. Adherence of standard pollution prevention measures from GOV.UK; fuel kits to be kept on site and fuelling of all vehicles done off-site.	N/A
Nesting birds	Potential loss of nesting sites within trees.	Retainment of trees where possible. Removal of trees should be done outside of nesting bird season (generally accepted as March to August inclusive) unless otherwise checked prior to works commencing by a suitably qualified ecologist.	Installation of new bird boxes incorporated into the design of the new building. Foraging enhancement of the site by planting of new native trees and shrubs, especially fruit bearing varieties such as hawthorn and ivy. Use of green roof wherever possible.
Bats	Potential loss of foraging grounds.	Retainment of trees where possible. Lighting plan that is low lux, of hooded design, direct.	Planting of native and wildlife-friendly species throughout the proposed development including whenever possible use of green roof.
Reptiles	Negligible	Precautionary measures advised for removal any refugia. If any reptiles found, the ecologist should be contacted at the earliest opportunity.	No recommendations advised.
Hedgehogs	Negligible to low potential for loss of shelter, foraging and traversing grounds.	Use of mammal ladders for any holes, ditches and/or trenches.	Implementation of raised fences or hedgehog gravel boards to create hedgehog highways.
Badgers	Negligible	Use of mammal ladders for any holes, ditches and/or trenches.	No recommendations advised.
Invasive species (LISI & W & CA Sch9)	Spread of invasive species (buddleia and small-leaved cotoneaster)	Responsible removal of buddleia and small leaved cotoneaster from the site during the works.	Avoidance of planting non-native plant species, landscaping plan to incorporate native plants.

6.3 It is considered that any potential adverse impacts from the proposed development upon specific protected species will be able to be wholly mitigated through an ecologically lead design process. In addition, a sensitive landscape design could provide enhancements to the habitats on and adjacent to the site which in turn will benefit multiple species and biodiversity in general, in accordance with Section 15 of the NPPF (DfCLG, 2021), Policy EM7 of Hillingdon Local Plan, and in line with G6 of The London Plan. Proposed enhancements include:

- Nesting boxes and bat boxes
- Raised fences or gravel boards for hedgehogs
- Wildlife-friendly planting scheme including whenever possible, green roof
- Lighting plan that is direct and of low light spill

7. REFERENCES

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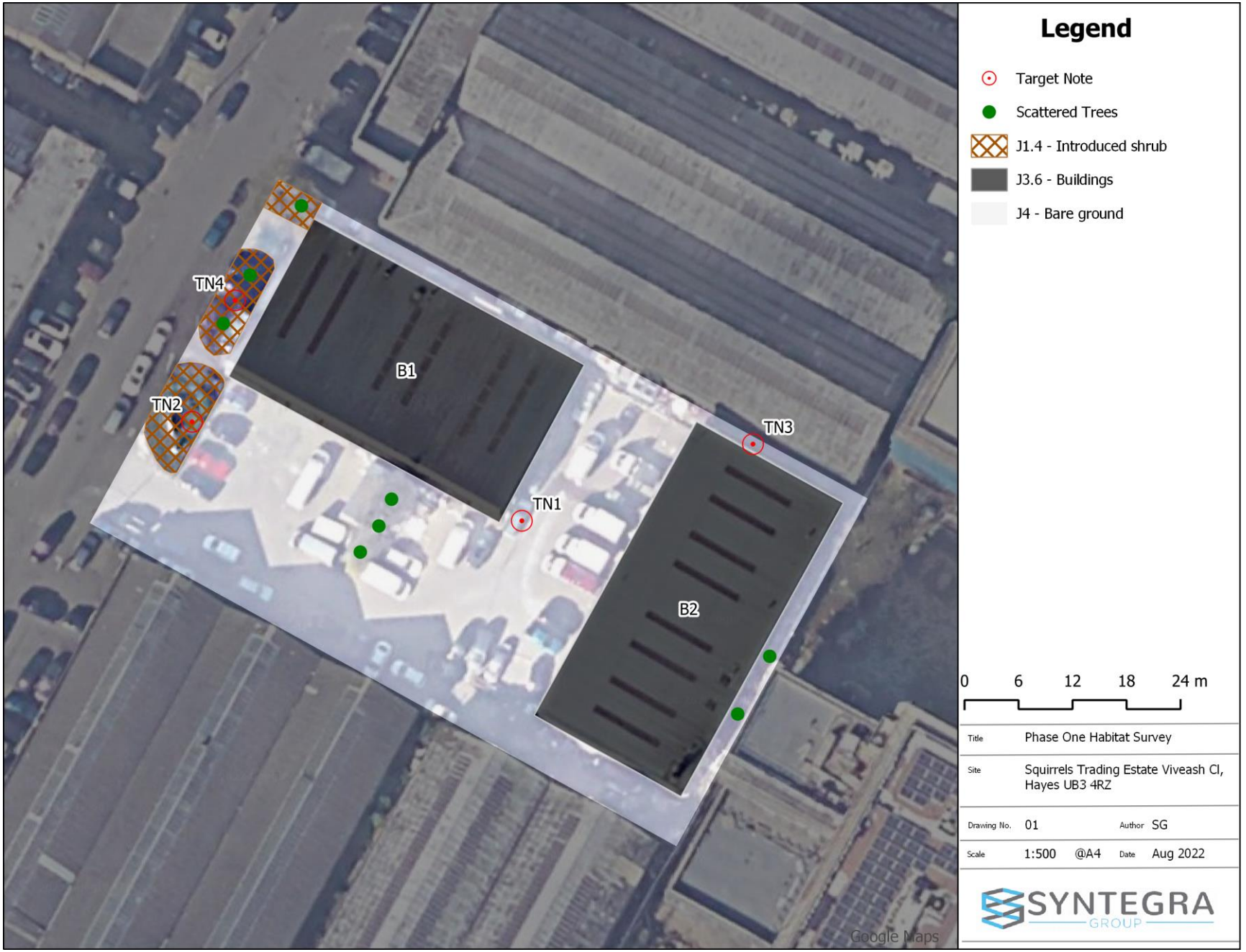
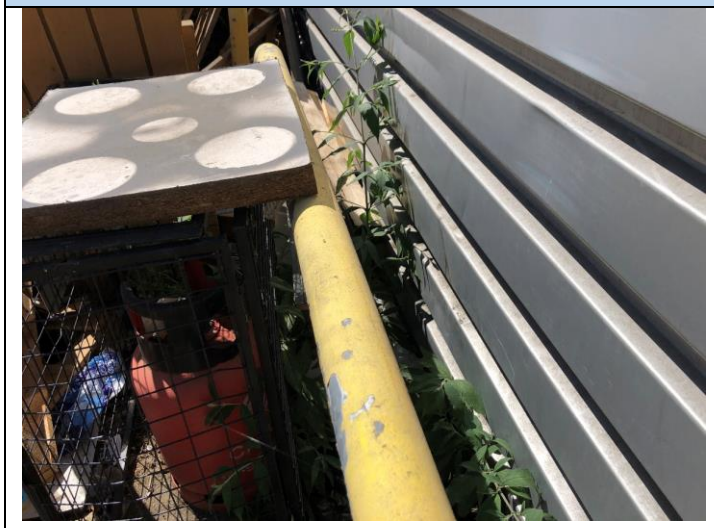
APPENDIX I - EXTENDED PHASE ONE HABITAT SURVEY MAP



Target Notes



Target Note 1 – Small buddleia – south-eastern corner of B1

Target Note 2 – small buddleia behind crab apple tree – western boundary

Target Note 3 – Emergent vegetation north of B2

Target note 4 – Small-leaved cotoneaster – western boundary

APPENDIX II - ADDITIONAL SITE PHOTOS

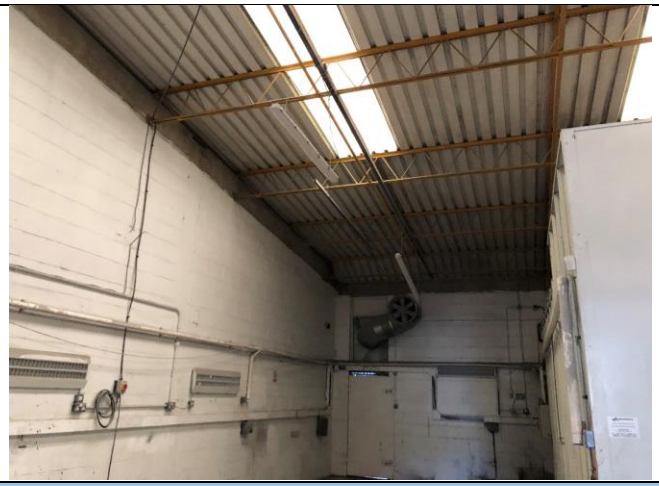


Photo 1: Internal view of the rear of unit 7 (B2)	Photo 2: Internal view of bathroom area of unit 7 (B2)

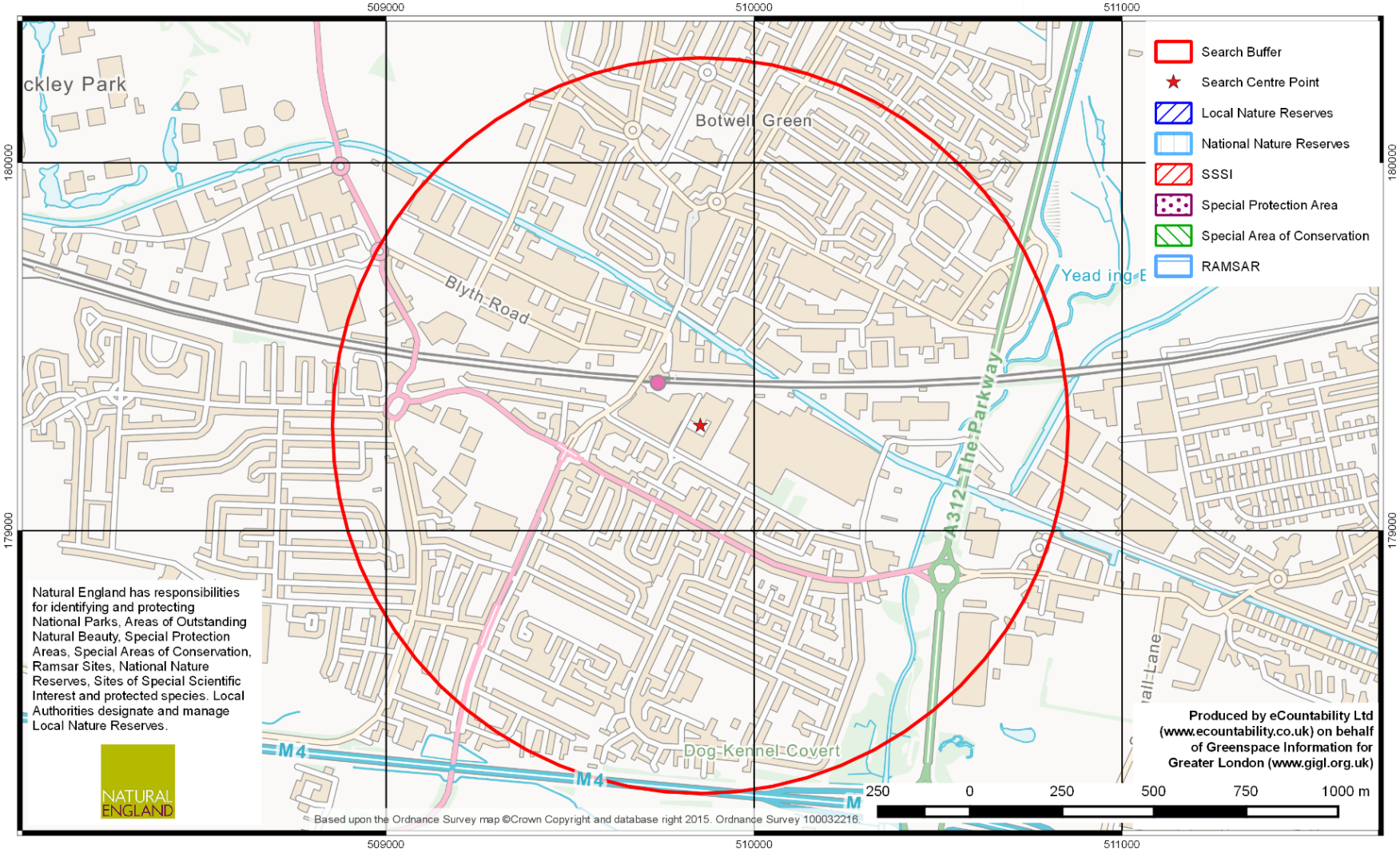
APPENDIX III - RECORD SEARCH DATA

Statutory Site Designations

Ecological Data Search for Syntegra Group
Squirrels Trading Estate, 16 August 2022

GiGL Greenspace Information for Greater London CIC
the capital's environmental records centre

eCountability

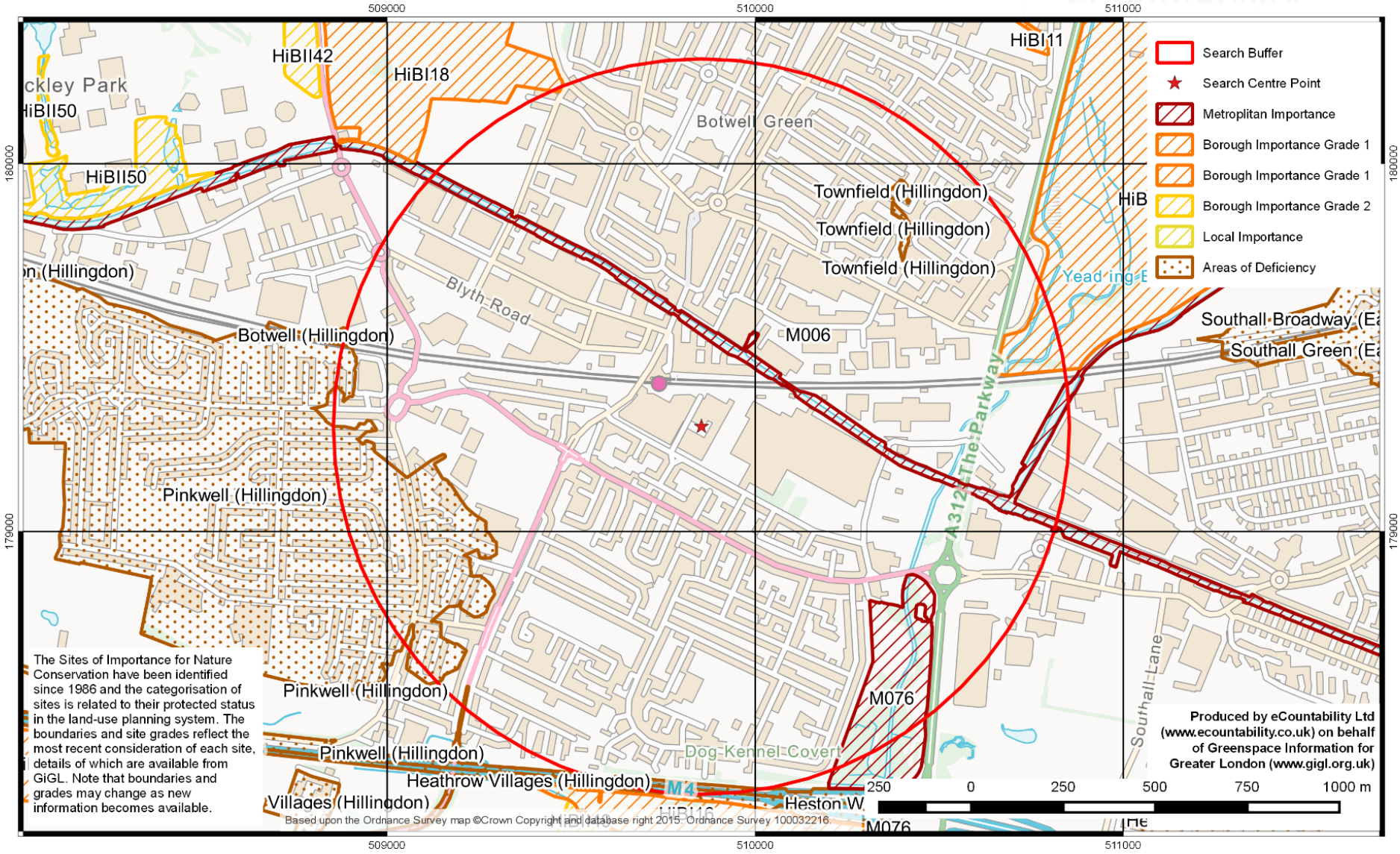


Sites of Importance for Nature Conservation

Ecological Data Search for Syntegra Group
Squirrels Trading Estate, 16 August 2022

GiGL Greenspace Information for Greater London CIC the capital's environmental records centre

eCountability



APPENDIX IV - LEGISLATION & RELEVANT POLICIES

This section details the legislation relevant to the protection of species and habitats. It also details the relevant policies within national, regional, and local planning policy.

NPPF

The National Planning Policy Framework in summary requires that the planning system should aim to contribute and enhance the natural and local environment. The aims are to: protect and enhance valued landscapes as well as geological conservation interests and soils; recognising the wider benefits of ecosystem services; and minimising impacts on biodiversity and providing net gains in biodiversity where possible.

Biodiversity Laws

Statutory protection is afforded to certain wild habitats and species through European Directive 92/43/EEC on the conservation of natural habitats and wild fauna and flora (the 'Habitats Directive'). This has been adopted into UK legislation under the 2017 Habitats Regulations. At the national level protection is found in the Wildlife and Countryside Act (WCA 1981; as amended) and it is designed to protect species and habitats considered to be of principal importance in order to conserve biodiversity.

Under Regulation 43 of the Habitats Regulations it is an offence to deliberately capture or kill a wild animal of a European protected species, deliberately disturb any such animal and to damage or destroy a breeding site or resting site. Since August 2007 amendments to the Conservation (Natural Habitats) Regulations 1994 have changed the term 'deliberately disturb' such that it is an offence if the species are disturbed in such a way that it is likely to significantly affect the colony's ability to survive, breed or rear their young; or affect the local distribution or abundance of that species.

The WCA 1981 (as amended) is the principle mechanism for the statutory protection of wild flora and fauna in the United Kingdom. Reptiles, including slow worms and grass snakes, are protected under Schedule 9(1) against intentional killing and injuring. Nesting birds are also protected under the WCA 1981 (as amended) which makes it an offence to intentionally kill, injure or take them, take, damage or destroy their nest whilst in use or being built, or to take or destroy their eggs.

All species of bats are strictly protected through UK and European regulations. Bats have been placed on protected lists due to the overall steady decline of species over the last century. Under section 9 in conjunction with Schedule 5 of the WCA 1981 (as amended), all bats are protected from intentional or reckless disturbance. Additional protection for all bat species is provided under Schedule 2 of The Conservation of Habitats and Species Regulations Licences are needed if the disturbance is to produce a significant effect on the bat colony, which would otherwise be an offence. These may be granted for the purposes specified under section 16 of the WCA 1981 as well as under Section 55 under the Habitat Regulations, following the submission of a licence application to Natural England.

Badgers are protected under the Badger Protection Act 1992 and under Schedule 6 of the Wildlife and Countryside Act 1981 (as amended); badgers are classified as a species of conservation concern under the UK Biodiversity Action Plan and listed under Appendix III of the Bern Convention.

Policy G6 London Plan

Under Policy G6 Biodiversity and access to nature, of the London Plan 2021, *'Sites of Importance for Nature Conservation (SINCs) should be protected; Where harm to a SINC is unavoidable, and where the benefits of* the development proposal clearly outweigh the impacts on biodiversity, the following mitigation hierarchy should be applied to minimise development impacts: 1) avoid damaging the significant ecological features of the site 2) minimise the overall spatial impact and mitigate it by improving the quality or management of the rest of the site 3) deliver off-site compensation of better biodiversity value; Development proposals should manage impacts on biodiversity and aim to secure net biodiversity gain. This should be informed by the best available ecological information and addressed from the start of the development process'.

Policy EM7 - Hillingdon Local Plan: Part 1 - Strategic Policies (Adoption version)

Policy EM7: Biodiversity and Geological Conservation The Council will review all the Borough grade Sites of Important Nature Conservation. Deletions, amendments and new designations will be made where appropriate within the Hillingdon Local Plan: Part 2- Site Specific Allocations Local Development Document. These designations will be based on previous recommendations made in discussions with the Greater London Authority. Hillingdon's biodiversity and geological conservation will be preserved and enhanced with particular attention given to: 1. The conservation and enhancement of the natural state of: Harefield Gravel Pits Colne Valley Regional Park Fray's Farm Meadows Harefield Pit 2. The protection and enhancement of all Sites of Importance for Nature Conservation. Sites with Metropolitan and Borough Grade 1 importance will be protected from any adverse impacts and loss. Borough Grade 2 and Sites of Local Importance will be protected from loss with harmful impacts mitigated through appropriate compensation. 3. The protection and enhancement of populations of protected species as well as priority species and habitats identified within the UK, London and the Hillingdon Biodiversity Action Plans. 4. Appropriate contributions from developers to help enhance Sites of Importance for Nature Conservation (SINCs) in close proximity to development and to deliver/ assist in the delivery of actions within the Biodiversity Action Plan. 5. The provision of biodiversity improvements from all development, where feasible. 6. The provision of green roofs and living walls which contribute to biodiversity and help tackle climate change. 7. The use of sustainable drainage systems that promote ecological connectivity and natural habitats.