BRIDGEWATER RETAIL PARK

Preliminary Ecological Appraisal

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Bridgewater Retail Park PEA
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Quality Management

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EXECUTIVE SUMMARY

RPS was commissioned by Oxenwood Real Estate to undertake a Preliminary Ecological Appraisal of land proposed for redevelopment at Bridgewater Retail Park, Uxbridge Road, Hayes, UB4 0RH. This comprised a desk study, Phase 1 Habitat Survey and an ecological scoping survey which assessed the potential of the site to support species of conservation concern or other species which could present a constraint to the development of the site.

The site is approximately 1 ha in size and comprises four large commercial retail units, hardstanding (predominantly comprising car parking spaces), introduced shrub borders and scattered planted trees.

There is one statutory designated sites for nature conservation within 2 km of the site, Yeading Meadows Local Nature Reserve (LNR). The nearest non-statutory site is Yeading Brook, Minet Country Park and Hitherbroom Park Site of Importance for Nature Conservation (SINC) which lies 0.02 km from the applicaton boundary.

The Phase 1 Habitat Survey identified that the site predominantly comprised of buildings and hardstanding with areas of introduced shrub and hedgerow with trees. Yeading Brook, Minet Country Park and Hitherbroom Park SINC runs directly adjacent to the site boundary.

The site and its immediate surroundings provided suitable habitat for breeding birds and low value habitat for foraging and commuting bats.

Mitigation and enhancement measures are recommended to minimise the impact of the proposed development on the adjacent Yeading Brook, Minet Country Park and Hitherbroom Park SINC, nesting birds and bats. Control measures are recommended for cotoneaster species.

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1 INTRODUCTION

1.1 Purpose and Scope of this Report

1.1.1 RPS was commissioned by Oxenwood Real Estate to undertake a Preliminary Ecological Appraisal (PEA) of land proposed for redevelopment at Bridgewater Retail Park, Uxbridge Road, Hayes, UB4 0RH.

1.1.2 To undertake an initial assessment of the potential ecological impact of the proposals, a desk study, Phase 1 Habitat Survey, and a preliminary protected species assessment were carried out. This is termed as a Preliminary Ecological Appraisal Report (PEAR) in accordance with CIEEM (2017). This assessment is considered 'preliminary' until any required protected species, habitat or invasive species surveys are completed, and the results incorporated into a final Ecological Appraisal or Ecological Impact Assessment (EcIA) which supports the planning application.

1.1.3 The PEA aims to:

- undertake a desk-based review of designated sites and records of protected species and other species that could present a constraint;
- map and assess the habitats present on site;
- assess the site for potential to support protected species or other species that could present a constraint, and make appropriate recommendations for further survey work if necessary;
- provide outline options for mitigation measures as appropriate; and
- make recommendations for appropriate biodiversity enhancements in line with national and local planning policy.

1.1.4 This report pertains to these results only; recommendations included within this report are the professional opinion of an experienced ecologist and therefore the view of RPS.

1.1.5 The surveys and desk-based assessments undertaken as part of this review and subsequent report including the Ecological Appraisal Notes are prepared in accordance with the British Standard for Biodiversity Code of Practice for Planning and Development (BS42020:2013).

1.2 Study Area and Zone of Influence

1.2.1 The site is located at Bridgewater Retail Park, Uxbridge Road, Hayes, UB4 0RH. The site is approximately 1 ha in size. The A4020 runs along the Eastern side of the site and the M4 is approximately 1 km south of the Site. Yeading Brook, Minet Country Park and Hitherbroom Park SINC is immediately south of the site (i.e., running parallel to the site's southern boundary). The National Grid coordinates for the centre of the site are TQ115805.

1.2.2 The site comprises four large commercial retail units and associated hardstanding (predominantly car parking spaces). A planted hedge with trees separates the site from the adjacent Yeading Brook, Minet Country Park and Hitherbroom Park SINC to the south, whilst a second area of planted shrubs and trees separates the site from the adjacent A4020 to the east.

1.2.3 The site is situated within an urban area comprising commercial and industrial land in West London. An area of derelict industrial land lies to the south, whilst one nearby designated site for nature conservation value, Yeading Meadows Local Nature Reserve (LNR) is located to the north-west of the site respectively.

1.2.4 The application site boundary and other land within the control of the applicant is shown on Figure 1.1.

Figure 1.1: Site Location Plan

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Site Boundary

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Project: Bridgewater Retail Park PEA

Title: Site Location Plan

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1.3 Development Proposals

1.3.1 It is understood that the proposed development will involve the removal of existing commercial buildings at Bridgewater Retail Park, to be replaced by a new commercial unit. This could potentially involve the removal and/or alteration of other buildings and existing habitats within the site boundary.

1.4 Legislation and Policy

1.4.1 Relevant legislation, policy guidance and both Local and National Biodiversity Action Plans (BAPs) are referred to throughout this report where appropriate. Their context and application is explained in the relevant sections of this report.

1.4.2 The relevant articles of legislation and guidance are:

- The National Planning Policy Framework (NPPF, 2021);
- Hillingdon Local Plan (adopted 2012), policies EM7 and EC2-EC6;
- The Conservation of Habitats and Species Regulations 2019 (EU Exit Amendment);
- The Wildlife and Countryside Act 1981 (as amended);
- The Protection of Badgers Act 1992;
- The Countryside and Rights of Way Act 2000;
- The Hedgerow Regulations 1997;
- The Natural Environment and Rural Communities Act 2006; and
- National / Local Biodiversity Action Plan for London.

1.4.3 A summary of legislation relevant to protected or other species identified as potential constraints in this report is provided in Appendix A.

2 METHODS

2.1 Desk Study

2.1.1 Ecological records within a 2 km radius of the site were requested from Greenspace Information for Greater London (GiGL). Data requests were limited to records for protected species recorded within the last ten years and sites of nature conservation interest within 2 km of the site. This included a review of existing statutory sites of nature conservation interest, such as Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), Special Area of Conservation (SACs) and National Nature Reserves (NNRs), and non-statutory sites, such as Sites of Importance for Nature Conservation (SINCs) and Local Wildlife Sites (LWSs).

2.1.2 Locations of statutory designated sites were accessed via the government 'MAGIC' website (MagicMap, 2021).

2.1.3 A 1:25,000 OS map was used to identify nearby features such as ponds or green corridors that could be suitable for protected or notable species or provide connectivity to wider areas of suitable habitat off-site.

2.2 Ecological Appraisal

2.2.1 The ecological appraisal consisted of two components: a Phase 1 Habitat Survey and a scoping survey for protected species and other species of conservation concern which could present a constraint to development.

2.2.2 The Phase 1 Habitat Survey followed the standard methodology (JNCC, 2010), and as described in the Guidelines for Preliminary Ecological Assessment (CIEEM, 2017). In summary, this comprised walking over the survey area and recording the habitat types and boundary features present.

2.2.3 A protected species scoping survey was carried out in conjunction with the Phase 1 Habitat Survey. The site was assessed for its suitability to support protected species, in particular great crested newt (GCN) *Triturus cristatus*, reptiles, birds, badger *Meles meles*, bats, and other species of conservation importance that could pose a planning constraint (including invasive non-native species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)).

2.2.4 The surveyors looked for evidence of use including signs such as burrows, droppings, footprints, paths, hairs, refugia and particular habitat types known to be used by certain groups such as ponds. Any mammal paths were also noted down and where possible followed. Fence boundaries were walked to establish any entry points or animals' signs such as latrines. Areas of bare earth were inspected for mammal prints. Areas of habitat considered suitable for protected species or those of conservation interest were recorded.

2.3 Phase 1 Habitat Survey

2.3.1 The Phase 1 Habitat Survey was undertaken on 15th September 2021 by Nikki Hulse and Lucinda Clark, both RPS Assistant Ecologists experienced in carrying out such surveys.

2.3.2 Habitats were mapped onto OS base maps using the JNCC Phase 1 Habitat Survey categories. Typical plant species were recorded for each category of habitat and species names followed the nomenclature used in Stace (2010).

2.3.3 Habitats potentially suitable for legally protected and notable species were noted, and any signs of such species (e.g., sightings, tracks, droppings, burrows, etc.) were recorded.

2.3.4 Target Notes were created for any features of interest and are listed in Appendix B.

2.3.5 The Phase 1 Habitat Survey was undertaken in September which is within the optimal period for this survey type (March to September).

2.4 Preliminary Bat Roost Assessment

2.4.1 A ground-level assessment of trees and an external assessment of buildings present within the site boundary, was undertaken at the same time as the Phase 1 Habitat Survey.

2.4.2 The surveys comprised ground-based examinations of the trees and buildings in order to:

- Record potential roosting places;
- Assess their suitability for roosting bats; and
- Make recommendations for further bat surveys and mitigation, where required.

2.4.3 The external inspections of the buildings and trees were conducted using binoculars to inspect all areas thought to be suitable for roosting bats. All accessible surfaces were surveyed for signs that indicated bat presence. The suitability of the buildings for roosting bats was assessed by examining structural features. Structural features that may influence the suitability of a building to support roosting bats include the presence of a roof void, the complexity and size of the roof void, daytime light levels within roof voids and the presence of access points into the building or crevices that provide a roost space (including gaps beneath barge boards, soffits and fascia boards, gaps under lead flashing, gaps within masonry and under loose tiles, ridge-cap tiles gaps, gaps between mortise and tenon joints, window frames, cavity walls, hanging tiles, and cracks in walls).

2.4.4 Trees were assessed as having the potential to support bat roosts if they had features such as holes, cavities, split/broken limbs, trunk hollows, knot holes, flaking bark and woodpecker holes.

2.4.5 When suitable features were identified, they were inspected for signs indicating use or possible use by bats including tiny scratches, staining and flies around the entry points, bat droppings and feeding remains in, around and below entrances, distinctive smell of bats and the smoothing of surfaces around cavities.

2.4.6 The buildings and trees' suitability for roosting bats was also assessed by examining the surrounding habitat. Important habitat features surrounding the structure which may influence bat roost potential include whether the structure is in a semi-rural or parkland location, its proximity to significant linear habitat features such as a watercourse, mature hedgerow, wooded lane, or an area of woodland.

2.4.7 Guidance from the Bat Conservation Trust *Bat Survey: Good Practice Guidelines* (BCT, 2016) on the features of buildings and trees which correlate with their use by bats was considered.

Table 2.1 below is taken from the above guidance and describes the category of potential value to roosting bats.

Table 2.1: Guidelines for assessing the potential suitability of proposed development sites for bats.

Suitability	Description of Roosting Habitats	Commuting and foraging habitats
Negligible	A structure or tree with negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough features* to be used on a regular basis or by larger number of bats. A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats such as gaps in a hedgerow or un-vegetated stream, but isolated. Suitable but isolated habitat that could be used by small numbers of foraging bats, such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their features* but unlikely to support a roost of high conservation status.	Continuous habitat connected to the wider landscape that could be used by bats for commuting and foraging, such as lines of trees and scrub or linked back gardens, grassland, or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their features*.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting and foraging bats, such as river valleys, streams, hedgerows, line of trees, woodland edge, broadleaved woodlands, tree-lined watercourses, and grazed parkland. Site is close to and connected to known roosts.

*space/size, shelter, protection, conditions, and surrounding habitat.

2.4.8 Preliminary bat roost assessments of trees and buildings can be carried out at any time of year; however, summer surveys are more likely to reveal signs of bat activity.

2.4.9 The locations of the buildings assessed are shown on the Phase 1 Habitat Plan, Figure 3.2.

2.5 Impact Appraisal

2.5.1 The overall ecological appraisal is based on the standard best practice methodology provided by the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017). The assessment identifies sites, habitats, species, and other ecological features that are of value based on factors such as legal protection, statutory or local site designations such as Sites of Special Scientific Interest (SSSI) or Local Wildlife Sites (LWS) or inclusion on Red Data Book Lists or Biodiversity Action Plans.

2.5.2 The assessment also refers to planning policy guidance (e.g., NPPF) where relevant to relate the value of the site and potential impacts of development to the planning process, identifying constraints and opportunities for ecological enhancement in line with both national and local policy.

2.5.3 The methodology for evaluation of the nature conservation value of ecological features affected by development (ecological receptors) is adapted from the current Chartered Institute of Ecology & Environmental Management guidelines for Ecological Impact Assessment (CIEEM, 2018). These guidelines recommend assignment of value (or potential value) to ecological receptors in accordance with the following scale:

1 International;

2 UK;

3 National (i.e., England/Northern Ireland/Scotland/Wales);

4 Regional;

5 County (or Metropolitan e.g., in London);

6 District (or Unitary Authority, City or Borough);

7 Local or Parish; and/or

8 Within immediate Zone of Influence only.

2.5.4 Following on from the above, potential constraints to development are identified on that basis, with recommendations for further, more detailed surveys made as appropriate, for example to fully investigate botanical value or to confirm presence / likely absence of a protected species

2.5.5 In appraising any impacts, the review considers the client's site proposals and any subsequent recommendations made are proportionate and appropriate to the site and have considered the Mitigation Hierarchy as identified below:

- **Avoid**: Provide advice on how the development may proceed by avoiding impacts to any species or sites by either consideration of site design or identification of an alternative option.
- **Mitigate**: Where avoidance cannot be implemented mitigation proposals are put forward to minimise impacts to species or sites as a result of the proposals. Mitigation put forward is proportionate to the site.
- **Compensate**: Where avoidance cannot be achieved any mitigation strategy will consider the requirements for site compensatory measures.

- **Enhance:** The assessment refers to planning policy guidance (e.g. NPPF) to relate the ecological value of the site and identify appropriate and proportionate ecological enhancement in line with both national and local policy.

2.5.6 When describing impacts on ecosystem structure and function, reference is made to the following aspects where appropriate:

i. extent;
ii. magnitude;
iii. duration;
iv. reversibility;
v. timing and frequency; and
vi. cumulative effects.

2.5.7 Understanding the nature of the impact enables determination of the effect on the ecological integrity of the ecological receptor. This in turn is assessed against the importance of the receptor to determine the significance of the effect on nature conservation interests as being (i) not significant, or (ii) a significant positive or adverse impact.

2.6 Limitations

Desk Based Assessment

2.6.1 The desk study data is third party controlled data, purchased for the purposes of this report only. RPS cannot vouch for its accuracy and cannot be held liable for any error(s) in these data.

2.6.2 Data obtained during the desk study are dependent on the submission of records of species and habitats for the search area in question. As such, the absence of records for a particular species or habitat does not necessarily confirm its current absence from the search area. Similarly, the presence of records for a particular species or habitat does not necessarily confirm its current presence within the search area.

Survey

2.6.3 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment.

2.6.4 The protected/notable species assessment provides a preliminary view of the likelihood of these species occurring on the site, based on the suitability of the habitat, known distribution of the species in the local area provided in response to our enquiries and any direct evidence on the site. It should not be taken as providing a full and definitive survey of any protected/notable species group.

2.6.5 The majority of the site was accessible on foot, however the back wall on the south side was fenced off and not accessible. Any areas which were not accessible at the time of the survey were visually scanned using binoculars and an assessment was made using professional judgement.

Accurate Lifespan of Ecological Data

2.6.6 The majority of ecological data remain valid for only short periods due to the inherently transient nature of the subject. The survey results contained in this report are considered accurate for two years, assuming no significant considerable changes to the site conditions. A verification walkover could be required within this time to identify if the site has changed significantly.

3 RESULTS

3.1 Designated Sites

3.1.1 There is one statutory designated sites for nature conservation value within 5 km of the site, this being Yeading Meadows LNR which is located 1.18 km from the site.

3.1.2 Fourteen non-statutory sites are located within the 2 km search radius of the site. The closest of these is Yeading Brook, Minet Country Park and Hitherbroom Park SINC, located 0.02 km from the site.

3.1.3 A summary of these sites is provided in Table 3.1 below and the location of each site is detailed on Figure 3.1.

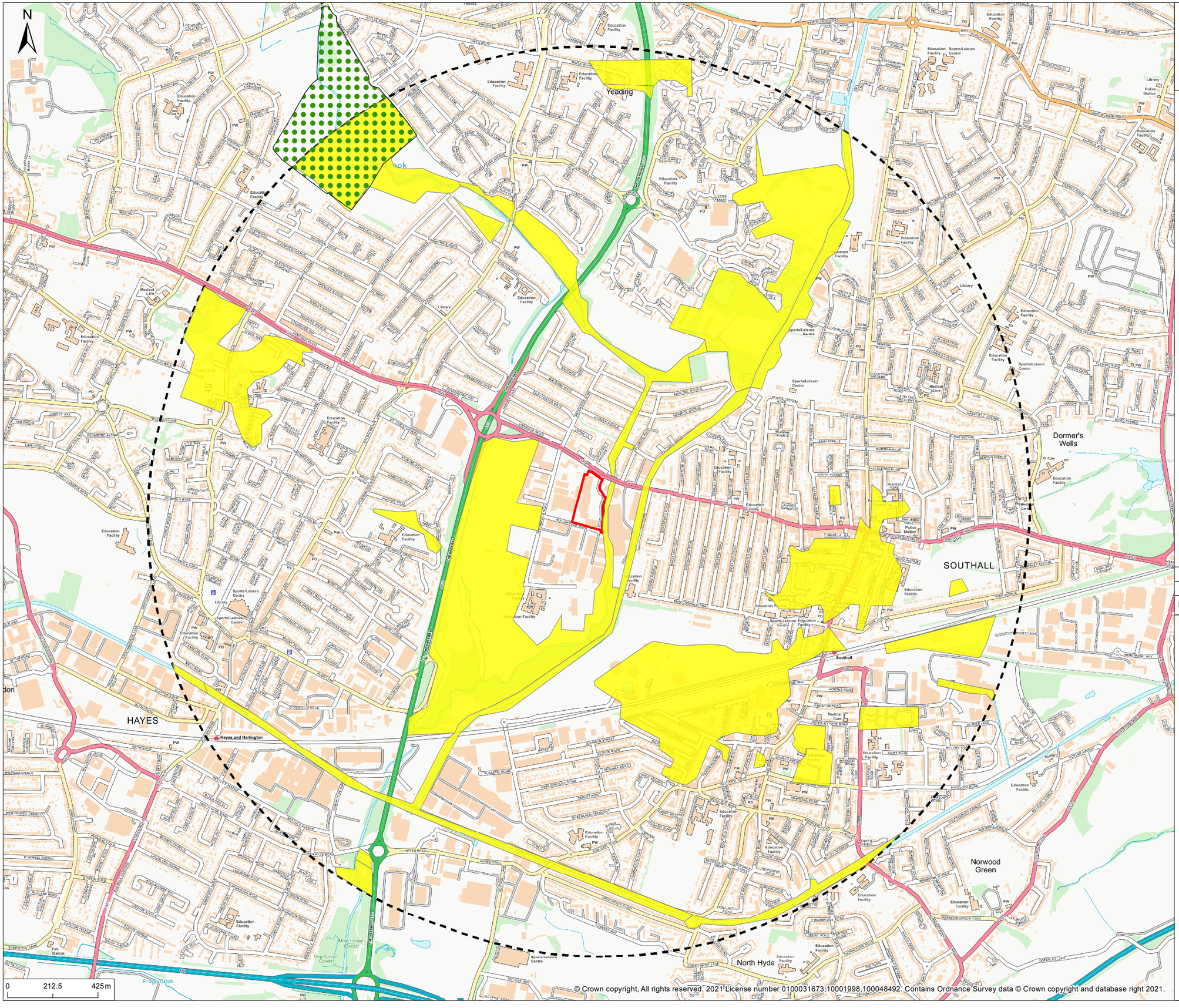
Table 3.1: Non-statutory designated sites within 2 km of the study area

Site name	Type	Approx. area (ha)	Interest Features	Distance from site (km)
Statutory sites				
Yeading Meadows	LNR	29.96	The meadows comprise a wide area of species-rich grassland bordering the shallow Yeading Brook SINC and is located south of Ten Acre Wood.	1.18
Non-statutory sites				
Yeading Brook, Minet Country Park and Hitherbroom Park	SINC	67.86	Minet Country Park partly comprises mainly of reclaimed derelict land. Much of the country park is recently created rough grassland, with areas of older, more natural meadow with five nationally scarce species of water beetle recorded from seasonal ponds to the north of the site.	0.02
London's Canals	SINC	189.66	London's Canals support a wide range of aquatic flora, amongst which are found a number of locally uncommon species. These include narrow-leaved water plantain *Alisma lanceolatum*, rigid hornwort *Ceratopyllum demersum* and shining pondweed *Potomageton lucens*, all species of clean, clear waters.	0.14
Willowtree Park	SINC	32.52	A mixture of publicly accessible wildlife habitats that include a meadow and wetlands. Areas of lightly grazed horse meadow and areas of grassland dominated by tufted hairgrass *Deschampsia cespitosa*, with interspersed scrub and trees, and, in damper areas, reed canary-grass *Phalaris arundinacea.*	0.79
Yeading Brook Meadows	SINC	170.8	An extensive mosaic of unimproved meadows and pastures divided by hedgerows, on the old floodplain of the Yeading Brook SINC. The grassland varies according to management history and tendancy to flooding, although the total flora is extremely diverse.	1.18
Avenue Road Hedge	SINC	0.51	This hedge has been much modified but retains elements that show that it has probably been here for a long time. The hedgerow trees are mainly ash *Fraxinus excelsior*.	1.29
Cranleigh Park Rough	SINC	0.14	Interesting area of developing wasteland vegetation. Crushed glass has been laid down on most of this area recently which	1.35

Site name	Type	Approx. area (ha)	Interest Features	Distance from site (km)
			has encouraged a diverse range of wasteland plants to colonise.	
Southall Railsides	SINC	16.01	This site includes the rail sides of the Great Western Railway between the Brent River Park North and Southall, along with the goods line going south-east from Southall station as far as Three Bridges. Along the tracks themselves there is more ruderal vegetation than most of the other lines in the borough.	1.44
Hortus Cemetery	SINC	2.64	Cemetery with nice grassland with abundant populations of some common herbs including yarrow *Achillea millefolium*, common bird's-foot-trefoil *Lotus corniculatus*, and ribwort plantain *Plantago lanceolata.*	1.49
Lady Margaret Road	SINC	0.11	No description provided by data search or online. Given small size it is difficult to identify it from aerial imaging make any inferences on likely habitat.	1.53
Havelock Cemetery	SINC	2.24	Despite the cemetery being in full use and the grass being mown frequently, the grasslands here are very flower rich. Oxeye daisy *Leucanthemum vulgare*, yarrow *Achillea millefolium* and common bird's-foot-trefoil *Lotus corniculatus* are particularly abundant.	1.53
Southall Park Nature Conservation Area	SINC	0.33	Two main habitats occur in this small area of the park, a pond in the south and meadow. The meadow is mown once a year and coarse herbs are competing well with the grasses providing a colourful spectacle and move diversity for invertebrates.	1.66
St Mary's, Wood End	SINC	6.8	A complex of open spaces with a good variety of wildlife habitats providing valuable access to nature in an area lacking in accessible wildlife sites. Habitats include fields, amenity grassland, hedgerows, scrub, a botanic garden, and an artificial pond.	1.73
Crane Corridor	SINC	178.05	For a length of over 5 km, the River Crane is bordered by habitats of remarkable diversity, including woodland, dry pastures, water meadows and areas of open water. Willow-alder woodland occurs in several places, which is a rare habitat in London	1.85

Abbreviations used in Table 3.1: LNR: Local Nature Reserve; SINC: Sites of Importance for Nature Conservation

Figure 3.1: Designated sites within 2km



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Legend

- Site Boundary
- Local Nature Reserve
- Sites of Importance for Nature Conservation

Rev	Description	By	CB	Date

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Project: Bridgewater Retail Park PEA

Title: Statutory and non-statutory designations

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3.2 Species

3.2.1 Records of protected species were obtained from GiGL. A number of species of conservation importance or otherwise notable were recorded within the 2 km search radius of the site. A summary of these records is provided below in Table 3.2.

3.2.2 In order to simplify the results, only records of species from the last 10 years are shown. In addition, only data with a 6 figure grid reference resolution or higher are provided, since locations given at a lower resolution do not allow accurate calculation of distance to the site boundary.

3.2.3 Any species recorded to a lower accuracy have the distances marked with an 'X'.

Table 3.2: Species records from the last 10 years within 2 km of the site

Common name	Scientific name	Nearest distance from site (km)	Year of most recent record	Conservation Status
Plants				
Greater pond-sedge	*Carex riparia*	0.45	2015	Local Spp of Cons Conc
Dittander	*Lepidium latifolium*	0.29	2015	NS
Rock stonecrop	*Sedum forsterianum*	1.73	2017	NS
Large-leaved lime	*Tilia platyphyllos*	1.16	2020	NS
Invertabrates - Beetles				
Stag beetle	*Lucanus cervus*	0.76	2020	NERC S41, UKBAP
Black-headed Cardinal Beetle	*Pyrochroa coccinea*	1.89	2017	Local Spp of Cons Conc
Invertebrates - Butterflies				
Brown argus	*Aricia agestis*	0.35	2019	NERC S41, UKBAP
Small heath	*Coenonympha pamphilus*	0.35	2019	NERC S41, UKBAP
Marbled white	*Melanargia galathea*	0.35	2019	Local Spp of Cons Conc
White-letter Hairstreak	*Satyrium w-album*	0.61	2019	NERC S41, UKBAP
Brown hairstreak	*Thecla betulae*	0.86	2018	NERC S41, UKBAP
Reptiles				
Slow worm	*Anguis fragilis*	1.96	2012	WCA5, NERC S41, UK BAP
Grass snake	*Natrix helvetica*	0.8	2012	WCA5, NERC S41, UK BAP
Birds				
Lesser redpoll	*Acanthis cabaret*	0.58	2017	NERC S41, Red
Skylark	*Alauda arvensis*	0.37	2017	NERC S41, UKBAP, Red
Kingfisher	*Alcedo atthis*	0.45	2017	BDIR, WCA1, Amber
Meadow pipit	*Anthus pratensis*	0.37	2017	Amber
Swift	*Apus apus*	0.37	2017	Amber
Stock dove	*Columba oenas*	0.37	2017	Amber
Mute swan	*Cygnus olor*	0.37	2015	Amber
House martin	*Delichon urbicum*	0.45	2014	Amber
Reed bunting	*Emberiza schoeniclus*	0.37	2017	NERC S41, UKBAP, Amber
Kestrel	*Falco tinnunculus*	0.37	2017	Amber
Herring gull	*Larus argentatus*	0.45	2016	NERC S41, Red

Common name	Scientific name	Nearest distance from site (km)	Year of most recent record	Conservation Status
Lesser black-backed gull	*Larus fuscus*	0.37	2013	Amber
Linnet	*Linaria cannabina*	0.37	2017	NERC S41, Red
Grasshopper warbler	*Locustella naevia*	0.45	2017	NERC S41, Red
Red kite	*Milvus milvus*	0.58	2019	BDIR, WCA1
Grey wagtail	*Motacilla cinerea*	0.45	2015	Red
House sparrow	*Passer domesticus*	0.41	2014	NERC S41, Red
Willow warbler	*Phylloscopus trochilus*	0.45	2017	Amber
Dunnock	*Prunella modularis*	0.45	2014	NERC S41, Amber
Bullfinch	*Pyrrhula pyrrhula*	0.45	2017	NERC S41, Amber
Firecrest	*Regulus ignicapilla*	0.58	2017	WCA1,
Whinchat	*Saxicola rubetra*	0.45	2015	Red
Starling	*Sturnus vulgaris*	0.37	2014	NERC S41, Red
Redwing	*Turdus iliacus*	0.45	2017	WCA1, Red
Song thrush	*Turdus philomelos*	0.37	2017	NERC S41, UKBAP, Red
Fielfare	*Turdus pilaris*	0.45	2017	WCA1, Red
Mistle thrush	*Turdus viscivorus*	0.37	2017	Red
Mammals - Bats				
Daubenton's bat	*Myotis daubentonii*	0.74	2014	EPS, WCA5
Common pipistrelle	*Pipistrellus pipistrellus*	0.74	2016	EPS, WCA5
Soprano pipistrelle	*Pipistrellus pygmaeus*	0.74	2016	EPS, WCA5, NERC S41, UK BAP
Mammals - Other				
Hedgehog	*Erinaceus europaeus*	1.07	2020	NERC S41, UKBAP

Abbreviations used in Table 3.2: EPS: European Protected Species; WCA1: Wildlife & Countryside Act Schedule 1, part 1; WCA5: Wildlife & Countryside Act Schedule 5; NS: Nationally Scarce; NERC S41: Natural Environment & Rural Communities Act Species of Principal Importance; UKBAP: UK Biodiversity Action Plan priority species; BDIR: Birds Directive; Red: Bird Population Status: red; Amber: Bird Population Status: amber.

Reptiles

3.2.4 Grass snake and slow worm were recorded within the 2 km search area. Grass snake was most recently recorded approximately 1.8 km north west of the site in 2012, whilst slow worm was most recently recorded approximately 2 km north-west of the site in 2012.

Birds

3.2.5 A total of 27 protected or notable bird species potentially relevant to the development were recorded within the 2 km search area. These included four species listed under Annex I of the EC Birds Directive, five species afforded additional protection under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), species listed under Section 41 of the NERC Act 2006 and as UK Biodiversity Action Plan (UK BAP) Priority Species, and Birds of Conservation Concern (BoCC) Red and Amber listed species (Eaton *et al.*, 2015).

3.2.6 These records were predominantly from a site approximately 0.4 km from the development site, as recently as in 2019.

Mammals (bats)

3.2.7 At least three bat species were recorded within 5 km of the site boundary. A number of other records were provided for bats not identified to species level which could therefore have been other species.

3.2.8 All the bat records to the site boundary were for recorded approximately 0.7 km from the site. Daubenton's bat was recorded in 2014 with common and Soprano pipistrelle recorded in 2016.

Mammals (other)

3.2.1 Records for hedgehog were identified in the desk study, approximately 1 km from the site as recently as 2020.

Other Protected and Notable Species

3.2.2 Records for stag beetle, brown argus, small heath, white-letter hairstreak and brown hairstreak butterflies were recorded within 2 km of the site boundary from 2018 onwards.

3.2.3 No invasive non-native species (i.e., species included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)) were recorded within 2 km of the site boundary during the last ten years.

3.3 Phase 1 Habitat Survey

3.3.1 The survey results are presented in the form of a map with the habitat types and boundary features marked (Figure 3.2). An explanation of target notes (TN) from Figure 3.2 can be found in Appendix B. Site photographs can be found in Appendix C.

3.3.2 Descriptions of the habitat types and boundary features are detailed below. Habitat descriptions are defined by broad habitat types (JNCC, 2010).

A3.1 Scattered trees

3.3.3 A total of five semi-mature silver birch *Betula pendula* trees were recorded on the site, comprising two on the northern boundary of the site and three located in an area of introduced shrub within the hardstanding car park area (TN1, photograph 1). A semi-mature sycamore *Acer pseudoplatanus* tree was also present in this area.

3.3.4 Three semi-mature wild cherry *Prunus avium* were indentified on the southern border of the site (TN2).

J1.4 Introduced shrub

3.3.5 An area of introduced shrub bordered the north of the site with species including buddleia *Buddleja davidii*, cotoneaster *Cotoneaster spp.,* and box *Buxus spp.* (photograph 2)

3.3.6 A smaller area on the north-east of the site bordering the entrance to the car park included similar species to that described above, with the addition of cherry plum *Prunus cerasifera*, hawthorn *Crataegus monogyna*, ivy *Hedera helix*, bramble *Rubus fruticosus* and silver birch.

3.3.7 Small stands of box and cotoneaster were identified throughout the car parking area (TN3, photograph 3).

J2.3 Hedgerow with trees

3.3.8 A hedgerow approximately 2.5 m high and 2-3 m wide was present directly adjacent to the eastern border of the site, acting as a buffer to Yeading Brook, Minet Country Park and Hitherbroom Park SINC. The hedgerow was predominantly common laurel *Prunus laurocerasus*, but included occasional semi-mature trees comprising willow *Salix alba,* cherry plum, ash *Fraxinus excelsior*, buddleia and cotoneaster (photograph 4).

J3.6 Buildings

3.3.9 The western section of the site was dominated by a number of large, modern, warehouse-style commercial units, which covered around half the area of the site. The buildings were constructed of concrete, brick and glass with sloping metal fronts and flat roofs and were generally considered to be in good condition.

J4 Bare Ground and Hardstanding

3.3.10 Most of the site was tarmacked hardstanding utilised as the car parking area to the front, with loading and deliveries to the rear of the site.

3.3.11 The surrounding land around the site boundary was all highly urbanised and an extensive amount of hardstanding was identified.

Figure 3.2: Phase 1 habitat map

Notes
1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
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Legend

- Site Boundary
- Target note
- Tree
- Species-poor hedge with trees
- Hardstanding
- Building
- Introduced shrub

Rev	Description	By	CB	Date

MAKING COMPLEX EASY

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Client: Oxenwood Real Estate

Project: Bridgewater Retail Park PEA

Title: Phase 1 habitat survey

Status	Drawn By	PM/Checked By
DRAFT	MS	NH
Project Number	**Scale @ A3**	**Date Created**
ECO02123	1:1,250	OCT 2021

Figure Number: **3.1**

Rev: -

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3.4 Ecological Scoping Survey

Plants

3.4.1 Hedgerows and introduced shrub (photograph 5) within the site contained a range of typical plant species. No priority species listed within the UK BAP or NERC S41 were recorded or are considered likely to have been present.

3.4.2 The overall diversity of the flora recorded during the survey was low and it is considered unlikely that the site would support any protected or notable plant species.

3.4.3 A species of cotoneaster was identified on site, however, was not identified to species level. It cannot be proven whether this is a Schedule 9 species under the Wildlife and Countryside Act 1981 (as amended), so unless further identification is carried out a precautionary approach should be taken (photograph 6).

Invertebrates

3.4.4 There was limited suitable habitat on site which had the potential to support invertebrates; hedgerows and introduced shrub within the site were suitable for an assemblage of common and widespread invertebrate species, including many species of butterflies.

Herpetofauna

Amphibians

3.4.5 There were no waterbodies present within the site boundary, however Yeading Brook, Minet Country Park and Hitherbroom Park SINC ran directly adjacent to the site.

3.4.6 The site itself predominantly comprised of buildings and large areas of hardstanding which were not considered to provide suitable terrestrial habitat for amphibians, including GCN, due to the lack of shelter, foraging and hibernation opportunities.

3.4.7 Yeading Brook, Minet Country Park and Hitherbroom Park SINC ran adjacent to the east of the site; the brook was not accessed at the time of the survey however, it likely contained flowing water with small amounts of emergent vegetation. The brook was separated from the site via large areas of hardstanding associated with the retail park and surrounding urban developments, which would likely act as a barrier to dispersal in the unlikely event that GCN were present in the brook.

3.4.8 Additionally, there were no records for GCN returned within 2 km of the site, in the desk study search.

3.4.9 It is therefore considered that GCN are absent from the site and are not considered further in this assessment.

Reptiles

3.4.10 The majority of the site comprised large areas of hardstanding which were considered to be of poor terrestrial habitat for reptiles, with no opportunities for foraging, basking, or hibernating.

3.4.11 Therefore, reptiles are likely to be absent from the site and are not considered further in this assessment.

Birds

3.4.1 Hedgerows and shrubs within and adjacent to the site provided suitable habitat for wintering and breeding bird species.

3.4.2 Considering the area and quality of habitats present within the site, the site is considered to have been of relatively low value to birds, particularly in the context of the wider landscape.

Bats

Bat Roosts

3.4.3 There were no trees identified within or immediately adjacent to the site boundary as being suitable for roosting bats

3.4.4 The commercial units on site appeared to be in overall good condition with limited opportunities for roosting bats. Several weepholes (photograph 7) were identified on the northern elevation. These appeared to contain cobwebs with no further evidence and therefore considered negligible.

3.4.5 Gaps around the shopfront signs (photograph 8) and gaps under the metal cladding (photograph 9) were identified on the eastern elevation (TN4), however these were too shallow and unsuitable as roosting features.

3.4.6 The buildings were therefore considered to have negligible potential to support roosting bats.

Bat Activity

3.4.7 Considering the type and area of habitat, the site comprised low suitability habitat for commuting and foraging bats. More suitable habitat is located off site, to the north-west of the site in the area of Yeading Meadows LNR and Yeading Brook, Minet Country Park and Hitherbroom Park to the south-west.

Other Mammals

3.4.1 Considering the area and quality of habitats present within the site, the site is considered to have been of relatively low value to mammals, particularly in the context of the wider landscape.

4 EVALUATION AND POTENTIAL IMPACTS

4.1 Designated sites

4.1.1 There is one statutory designated sites for nature conservation value within 2 km of the site, this being Yeading Meadows LNR which is located 1.18 km from the site. The LNR is located at a sufficient distance from the application site, no adverse impacts are anticipated.

4.1.2 There were fourteen non-statutory designated sites identified within 2 km of the site. Yeading Brook, Minet Country Park and Hitherbroom Park SINC is located 0.02 km to the east of the application boundary and could be indirectly impacted upon by the development proposals. Any proposals for the site should ensure that the SINC is retained and protected. Mitigation measures are included in Section 5.2 of this report.

4.2 Habitats

4.2.1 The site predominantly comprised hedgerows with trees, buildings, hardstanding, and planted shrub. Habitats immediately adjacent to the site included meadow, brook, scattered trees, hedgerow, and hardstanding.

4.2.2 Habitats recorded within and adjacent to the site are generally common and widespread habitats.

4.2.3 Table 4.1 below summarises the habitat types within the site and outlines the potential impacts of the development proposals to each of these habitats.

Table 4.1: Summary of potential habitat impacts

JNCC Code	Habitat Type	Ecological Importance	Potential impact
A3.1	Broadleaved scattered trees	Low	Due to the age of the trees, they would be unlikely to support nesting birds but may offer limited foraging opportunities for bats.
J1.4	Introduced shrub	Low	Limited, isolated areas of introduced shrub were not considered to be of significant ecological importance. They may offer some limited foraging opportunities for birds and bats.
J2.3	Species-poor hedgerow with trees	Low	Loss of nesting and foraging opportunity for birds as well as foraging and commuting bats.
J3.6	Buildings	Negligible	Limited opportunities for bats recorded within the commercial units at the time of the survey.
J4	Bare ground and hardstanding	Negligible	No ecological impact.

4.3 Species

Plants

4.3.1 Plant species present prior to development are considered to have comprised common and widespread species typical of the habitat types present.

4.3.2 No specially protected or notable plant species were identified within or immediately adjacent to the site or are considered likely to have been present prior to development.

4.3.3 A species of cotoneaster was identified on site, however, was not identified to species level. It cannot be proven whether this is a Schedule 9 species under the Wildlife and Countryside Act 1981 (as amended), so unless further identification is carried out a precautionary approach should be taken. Further details are provided in Section 5 of this report.

Invertebrates

4.3.1 Habitats within the site were suitable for an assemblage of relatively common and widespread invertebrate species.

4.3.2 No further surveys will be required however recommendations for enhancing the site for invertebrates are provided in Section 5 of this report.

Birds

4.3.3 Any habitat removed within the development is of potentially low value to breeding and wintering birds (particularly in the context of the much larger areas of higher quality habitat outside of the site).

4.3.4 Mitigation and enhancement measures are recommended in Section 5 of this report to ensure the development does not result in a reduction in the local availability of habitat for wintering and breeding bids.

Bats

Bat Roosts

4.3.1 There were no trees or buildings identified within or immediately adjacent to the site boundary as being high quality habitat for roosting bats, however the site did provide some low-value foraging and commuting habitat.

4.3.2 Mitigation measures have been set out in Section 5 below in order to minimise noise and light disturbance on boundary features during construction and operation.

Bat Activity

4.3.3 Illumination of new parking areas has the potential to result in light spill onto retained habitats of value to foraging and commuting bats.

4.3.4 Mitigation and enhancement measures are recommended in Section 5 of this report to ensure there is no reduction in the area or quality of habitat post-development for foraging and commuting bats.

5 MITIGATION AND ENHANCEMENTS

5.1 Designated sites

5.1.1 There is one statutory designated sites for nature conservation value within 2 km of the site. Yeading Meadows LNR is located a sufficient distance from the site, and so no adverse impacts are anticipated.

5.1.2 The proposals do not directly affect any non-statutory designated sites. However, Yeading Brook, Minet Country Park and Hitherbroom Park SINC is located 0.02 km to the east of the site, there is some potential for the brook to be indirectly impacted upon via accidental pollution events during any construction activities. Mitigation measures are included in Section 5.2 below.

5.1.3 All other non-statutory designated sites are located further than 1 km from site and considered sufficiently separated from the site that there would be no impact on them.

5.2 Habitats

5.2.1 To ensure an overall enhancement in biodiversity value following the development, and to avoid adverse impacts on species which may have used this area, new habitat within or near to the site should be created and/or retained habitat should be enhanced. This should incorporate plant species of known biodiversity value and be suitable for the species identified within this report as. Habitat creation/enhancement should be commensurate with the level of habitat loss/alteration as a result of the proposed development.

5.2.2 During any construction activities, there is a low risk of air- or water-borne pollutants being transmitted to nearby designated sites, however best practice pollution and dust control measures would be required, and this would ensure they would not affect the designated sites.

5.2.3 Good practice guidelines should be adhered to during the construction phase to ensure protection from contamination, dust etc. A Construction Environment Management Plan (CEMP) will be required to capture such practices and will include but may not be limited to:

- Protective fencing installed along retained boundary features adjacent to the site, where they fall outside the construction areas. Best practice guidelines for constructing exclusion zones, barriers and ground protection around trees provided in British Standard 5837:2012 (Trees in Relation to design, demolition, and construction - Recommendations), should be followed where necessary;
- The sensitive siting of construction compounds, access roads and laydown areas away from retained boundary features; and
- A plan produced to ensure that air or water-borne pollution generated during construction is contained and does not affect nearby designated sites.

5.2.4 Due to the implementation of the above measures, significant ecological effects on statutory designated sites are not considered likely.

5.2.5 The NPPF (2021) states that to minimise impacts on biodiversity, planning policies should promote the preservation, restoration, and re-creation of priority habitats.

Cotoneaster

5.2.6 There are currently five species of cotoneaster included on Schedule 9 Part 2 of the Wildlife and Countryside Act 1981 (as amended): wall cotoneaster (*Cotoneaster horizontalis*), entire-leaved cotoneaster (*Cotoneaster integrifolius*), Himalayan cotoneaster (*Cotoneaster simonsii*), hollyberry cotoneaster (*Cotoneaster bullatus*) and small-leaved cotoneaster (*Cotoneaster microphyllus*).

5.2.7 The cotoneaster identified on site has the potential to be a Schedule 9 species, therefore it should be accurately identified prior to construction commencing to be certain that it is not a Schedule 9 species. If a Schedule 9 species is identified on site, care should be taken during the construction phase to avoid the spread within or outside of the site.

5.2.8 If required, areas containing cotoneaster should be demarcated and bordered off until such a time where they can be safely removed and disposed.

5.2.9 Options for control are herbicide application or removal. Herbicide control could be incorporated into a site's existing vegetation management. This would be a relatively inexpensive method of dealing with the species.

5.2.10 Mechanical removal is not recommended. Seeds can easily be spread resulting in germination across the site. Mechanical shovels scrape the ground leaving much of the root material in situ, thus remaining material can then rapidly regrow.

5.2.11 If removal is preferred this should be done when the species is not fruiting. Roots and above ground growth should be dug out by hand ensuring all the roots are removed. All plant material should then be chipped and composted on site.

5.2.12 A systemic glyphosate-based herbicide should be used when treating cotoneaster. The herbicide should be applied by foliar application. It is important that the herbicide is applied to the upper and lower surface of the cotoneaster leaves. Some collateral damage to adjacent vegetation should be expected.

5.2.13 Commercial grade glyphosate should be prepared to the standard concentration, as indicated on the label. An appropriate adjuvant should be used to increase the 'stickiness' of the herbicide and enhance the amount of herbicide absorbed by the plants. Glyphosate based herbicides are less likely to harm nearby trees and shrubs than most other herbicides on the market, despite being a broad-spectrum herbicide. This is in part due to the herbicide being rapidly inactivated on contact with soil. Glyphosate is one of the more 'environmentally friendly' herbicides that is effective on cotoneaster.

5.2.14 Glyphosate is primarily absorbed through the leaves and passed down into the stem to the underground root system. Therefore, if there is not enough leaf area, or the plant is damaged and/or unhealthy, then too little herbicide will be absorbed to cause long-term damage to the plant. Consequently, cotoneaster should only be treated when in full leaf.

5.2.15 The optimal time to treat cotoneaster with a glyphosate-based herbicide is June to August. Repeated treatments are occasionally needed in control and management programmes as new plants may continue to germinate from the seedbank. Failing to allow plants to reach an appropriate condition prior to herbicide treatment can increase the amount of time required for treatment, along with associated costs.

5.3 Species

Birds

5.3.1 To minimise the impacts on the breeding bird assemblage within the development boundary, the measures described below should be adhered to.

5.3.2 The clearance of any vegetation and trimming of trees should be undertaken outside of bird nesting season (mid-February to September). It should be noted that whilst the main bird breeding season runs between March and September some birds can nest at any time of year.

5.3.3 If this is not possible, a suitably qualified ecologist should be on site to inspect the relevant areas for nesting birds within 48 hours of the vegetation being cleared. If an active nest is present, the nest and the vegetation or built structure within 5m of it will need to be retained until the young birds have fledged.

5.3.4 If the nest proves to be of a species listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), advice from the inspecting ecologist regarding suitable distances (buffers) to avoid disturbance of the nest and any birds using it should be sought and agreed with clearance contractors. Such buffers will remain in place until the young birds have fledged and left the nest.

5.3.5 As described in Section 5.2, replacement habitat to compensate for the loss of any current habitat should be provided whilst enhancement of hedges would also be of value to a range of species.

5.3.6 Provision of suitable nest boxes on buildings should also be considered, targeting a range of species typical of the habitats present within and adjacent to the site.

Bats

5.3.7 No trees or buildings have been identified within or immediately adjacent to the site boundary as having high bat roost potential.

5.3.8 The habitats immediately adjacent to the site were considered to provide some low-value foraging and commuting opportunities for bats. These features would be retained in the current proposals.

5.3.9 As described in Section 5.2, replacement habitat to compensate for the loss of any potential habitat should be provided in order to ensure there are no adverse impacts on local bat populations. The installation of additional bat roosting habitat in the form of artificial bat bricks and boxes could be considered in order to enhance the site for bats.

5.3.10 Any lighting to be provided within the development should be designed taking into account potential impacts on bats and other protected species. This should avoid illumination of potential commuting routes and foraging areas such as the hedgerow on the east of the site.

5.3.11 Should any temporary lighting be required at the site during the construction phase, the design will need to include measures to control the amount of artificial lighting and consider the specifications set out in the Bat Conservation Trust guidelines (BCT, 2018) as artificial lighting can affect the feeding behaviour of bats.

5.3.12 The following points should be considered:

- The site is located within a well-lit urban environment, should further lighting be required the guidance provided in Bats and Artificial Lighting in the UK (ILP, 2018) should be followed;
- Where practicable, lux levels should be 0.5 lux or less at the interface with any of these habitats. Where this is not practicable advice from an ecologist should be sought to determine the impact on bats; and
- Timing; where practicable, lighting should be turned off for periods when it is not needed to provide some dark periods.

5.4 Enhancement Opportunities

5.4.1 There is a requirement for the development to result in a net gain for biodiversity. Opportunities for retaining and protecting existing high value habitats should be sought as a first step. Opportunities for creating new high value habitats either within the site boundary or off site should also be identified.

5.4.2 In addition to the mitigation measures outlined above, opportunities for enhancements include:

- The provision of artificial nest/roost bricks and boxes for birds and bats and insect houses on trees and within buildings;
- The provision of green roofs on new buildings; and
- Landscape planting of native shrubs and trees to improve the connectivity to nearby habitats and biodiversity of the area.

6 CONCLUSIONS

6.1.1 There is one statutory designated site for nature conservation value within 2 km of the site, Yeading Meadows LNR. The LNR is located at a sufficient distance from the application site, no adverse impacts are anticipated.

6.1.2 There were fourteen non-statutory designated sites identified within 2 km of the site. Yeading Brook, Minet Country Park and Hitherbroom Park SINC is located adjacent to the application boundary. Mitigation measures have been provided within this report for the protection of the SINC and other sensitive retained in site habitats during the construction phase of the proposed development.

6.1.3 The Phase 1 Habitat Survey identified that the site predominantly comprised buildings with hardstanding and areas of introduced shrub. Hedgerow with trees bordered the west of the site.

6.1.4 The site and immediate surroundings were considered to provide low-value habitat for breeding birds and foraging and commuting bats.

6.1.5 Vegetation clearance should either be cleared outside of the breeding bird season (which runs from March to September) or checked prior to clearance by an ecologist if cleared within this period. Any active nests would need to be retained and protected until they became disused.

6.1.6 No trees or buildings have been identified within or immediately adjacent to the site boundary as having high bat roost potential.

6.1.7 The site provided low-value habitat for foraging and commuting bats. Further surveys are not required, however it is recommended that measures are implemented to avoid night-time lighting of areas that could provide flight lines and foraging habitats.

6.1.8 Control measures are recommended for the stand of cotoneaster recorded on the site.

6.1.9 Enhancement measures have been recommended for the site, including the provision of bird, bat and insect boxes.

REFERENCES

Bat Conservation Trust (2011). Statement on the impact and design of artificial light on bats. Bat Conservation Trust, London.

Bat Conservation Trust (2014). *Artificial lighting and wildlife Interim Guidance: Recommendations to help minimise the impact of artificial lighting on bats*. Bat Conservation Trust, London.

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

CIEEM (2017). *Guidelines for Preliminary Ecological Assessment*. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2019). *Advice note on the lifespan on ecological reports and surveys, April 2019.* Chartered Institute of Ecology and Environmental Management, Winchester. [online] Available from https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf.

Collins J. (ed.) (2016). *Bat surveys for Professional Ecologists: Good practice guidelines* (3rd Edition). Bat Conservation Trust, London.

GiGL Greenspace Information for Greater London CIC www.gigl.org.uk

Graftongate (2011). *Drawing no. 21048 F0003 (F).* Bridgewater Retail Park, Hayes. 28/01/2021.

JNCC (2010). *Handbook for Phase 1 Habitat survey: a technique for environmental audit* (revised reprint). Joint Nature Conservation Committee, Peterborough.

Legislation.gov.uk. Wildlife and Countryside Act 1981. [online] Available at: <http://www.legislation.gov.uk/ukpga/1981/69/contents> [Accessed 26 August 2021].

Legislation.gov.uk. The Countryside and Rights of Way Act 2000. [online] Available at: https://www.legislation.gov.uk/ukpga/2000/37/contents [Accessed 26 August 2021].

Legislation.gov.uk. The Conservation of Habitats and Species Regulations 2019 (EU Exit Amendment) [online] Available at: https://www.legislation.gov.uk/ukdsi/2019/9780111179512/contents [Accessed 26 August 2021].

MAGIC (2021). Statutory Designated Site and Ordnance Survey map information. Available from www.magic.gov.uk.

The Natural Environment and Rural Communities Act 2006. HMSO.

Newton J., Nicholson B., Saunders R., Willets R. & Venables R. (2011). *Working with wildlife: guidance for the construction industry* (2nd Ed.). CIRIA, London.

Stace C.A. (2010). *New Flora of the British Isles (3rd Ed.)*. Cambridge University Press, Cambridge.

UK BAP (2010). UK Biodiversity Action Plan. UK BAP. Available from www.jncc.defra.gov.uk.

APPENDICES

Appendix A: Relevant Legislation

Birds

All birds, their nests and eggs are afforded protection under the Wildlife and Countryside Act 1981, as updated by the Countryside and Rights of Way Act 2000. It is an offence to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; and
- intentionally take or destroy the egg of any wild bird.

Schedule 1 birds cannot be intentionally or recklessly disturbed when nesting and there are increased penalties for doing so. Licences can be issued to visit the nests of such birds for conservation, scientific or photographic purposes but not to allow disturbance during a development even in circumstances where that development is fully authorised by consents such as a valid planning permission.

Bats

All British bat species are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981, as updated by the Countryside and Rights of Way Act 2000. All British bats are also included on Schedule 2 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 as European Protected Species. It is an offence to:

- intentionally or recklessly kill, injure or capture bats;
- deliberately or recklessly disturb bats (whether in a roost or not); and
- damage, destroy or obstruct access to bat roosts.

A roost is defined as 'any structure or place which [a bat] uses for shelter or protection'. As bats tend to reuse the same roosts, legal opinion is that a roost is protected whether or not bats are present at the time of survey.

A licence will therefore be required by those who carry out any operation that would otherwise result in offences being committed.

The following bat species are listed as being of principal importance for the conservation of biodiversity in England, (commonly referred to as UKBAP Priority species): barbastelle, Bechstein's, noctule, soprano pipistrelle, brown long-eared, greater horseshoe, and lesser horseshoe.

Appendix B: Target Notes

TARGET NOTE NUMBER	DESCRIPTION
T1	Scattered trees throughout the site – Silver birch and sycamore located in the areas of introduced shrub
T2	Semi-mature cherry trees located in the hedgerow on the south border of the site
T3	Stands of box and cotoneaster – multiple throughout the site
T4	Weepholes in bricks and gaps around shop signage - observed and ruled out as potential locations for bats

Appendix C: Site Photographs

Photograph 1 (below left): Introduced shrub with scattered trees on the north border of the site showing potential bat foraging habitat.

Photograph 2 (below right): Introduced shrub with cotoneaster bordering the hardstanding carparking area to the east of the site, potential invertebrate habitat.

Photograph 3 (below left): Stands of introduced shrub scattered throughout the hardstanding carprk area, potential invertebrate habitat.

Photograph 4 (below right): Species poor hedgerow with trees bordering the east of the site providing a buffer area to Yeading Brook, Minet Country Park and Hitherbroom Park SINC. Potential nesting bird and bat foraging habitat.

Photograph 5 (below left): Species poor hedgerow with mature cherry trees bordering the south of the site. Potential invertebrate, nesting bird and bat foraging habitat.

Photograph 6 (below right): Cotoneaster planted throught the site, Section 5 recommendations to be followed.

Photograph 7 (below left): Weephole in brickwork on the north elevation, potential bat roost feature. However, given the wider area these were considered negligable.

Photograph 8 (below right): Gaps under and around signs on the front of all commercial units. Potential bat roost habitat. However, given the material make up of the structuire and wider location, these features were considered negligable.

Photograph 9: Gaps under and around metal cladding on the front and corners of all commercial units. Potential bat roost habitat. However, given the material make up of the structure, depth of gap and wider location these were considered negligable.