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Dear Alex

SOUTHALL WATERSIDE SWITCHROOM ECOLOGICAL ASSESSMENT

Date 28/04/2017

Introduction

Ramboll Environ UK Ltd (Ramboll Environ) was commissioned by St James West London Limited (the Client) to provide an Ecological Assessment of land adjacent to Minet Country Park (the application site) in London Borough of Hillingdon (LBH), in advance of the applications site's redevelopment as a Switchroom and Ancillary Metering Box (the proposed development). The application site is bounded by Pump Lane to the north, Minet Country Park including the River Crane to the east and south, and the A312 'The Parkway' flyover to the west.

The application site is within the boundary of the Southall Waterside development, which is in the process of being developed under planning consent from London Borough of Ealing (reference: P/2008/3981-S) and LBH (54814/APP/2009/430) as a residential-led redevelopment with associated access roads and landscaping. Numerous ecological surveys of the Southall Waterside development have been undertaken to inform these planning applications and to discharge planning conditions, and these include ecological surveys of the application site. This Ecological Assessment has been produced to accompany a planning application for the proposed development, and draws on existing ecological knowledge of the application site from these previous surveys.

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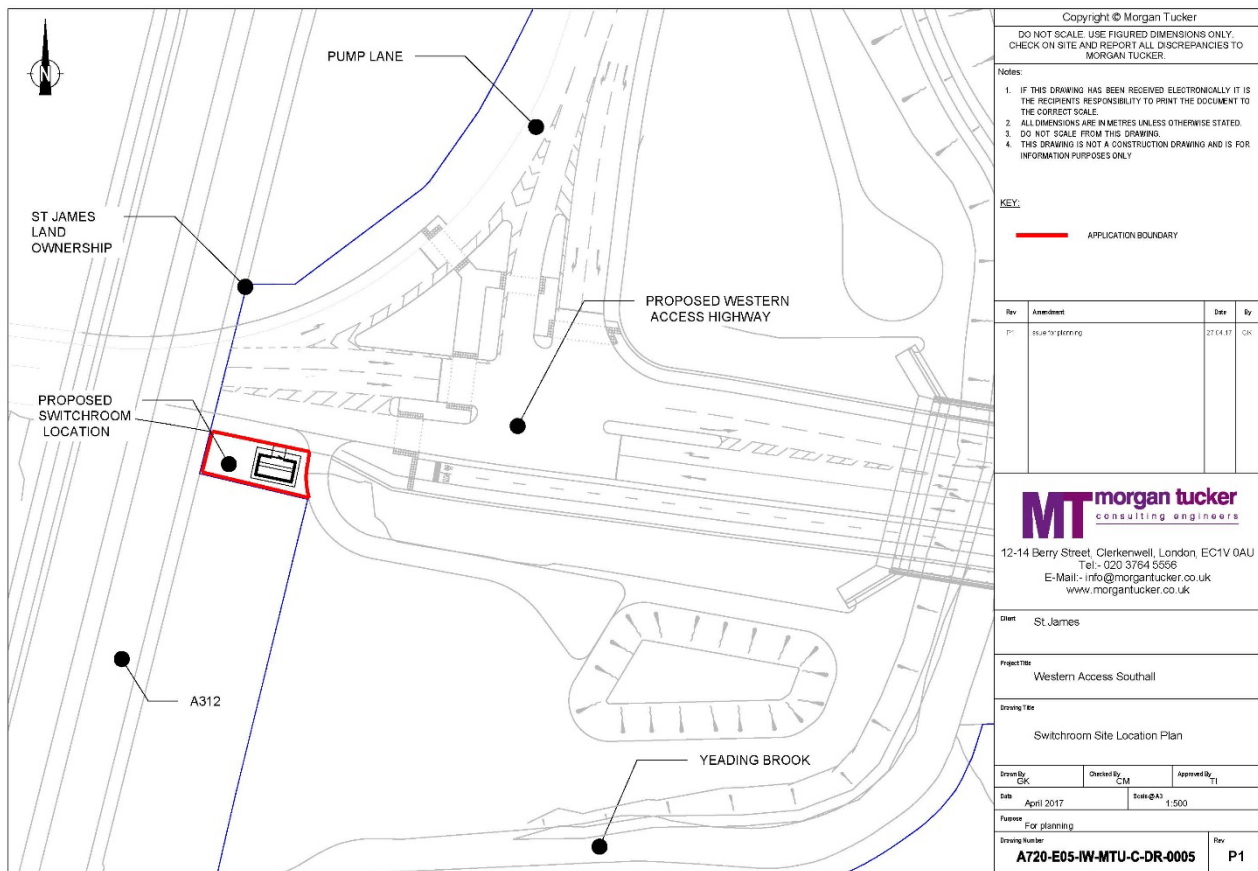


Figure 1: Location of the Proposed Development

The objectives of this Ecological Assessment are to:

- assess the ecological importance of the application site;
- provide an assessment of potential impacts of the proposed development on the application site's ecological features, as well as potential constraints;
- provide recommendation for the protection and enhancement of the application site's ecology; and
- report on mitigation and enhancement measures to be incorporated within the proposed redevelopment.

Proposed Development

The proposed development is an electricity switchroom and ancillary metering box, as shown in Figure 2. The switchroom is required in association with the new Western Access road which will serve the Southall Waterside development (the former Southall Gasworks site). The switchroom will provide the required power for lighting, signals and illuminated signage for the Western Access. The switchroom will be constructed from brick and will have a surface area of 9 m², and will be 2.4 m high. The switchroom will be set on an 18.72 m² concrete plinth surrounded by gravel (total area 41.92 m²).

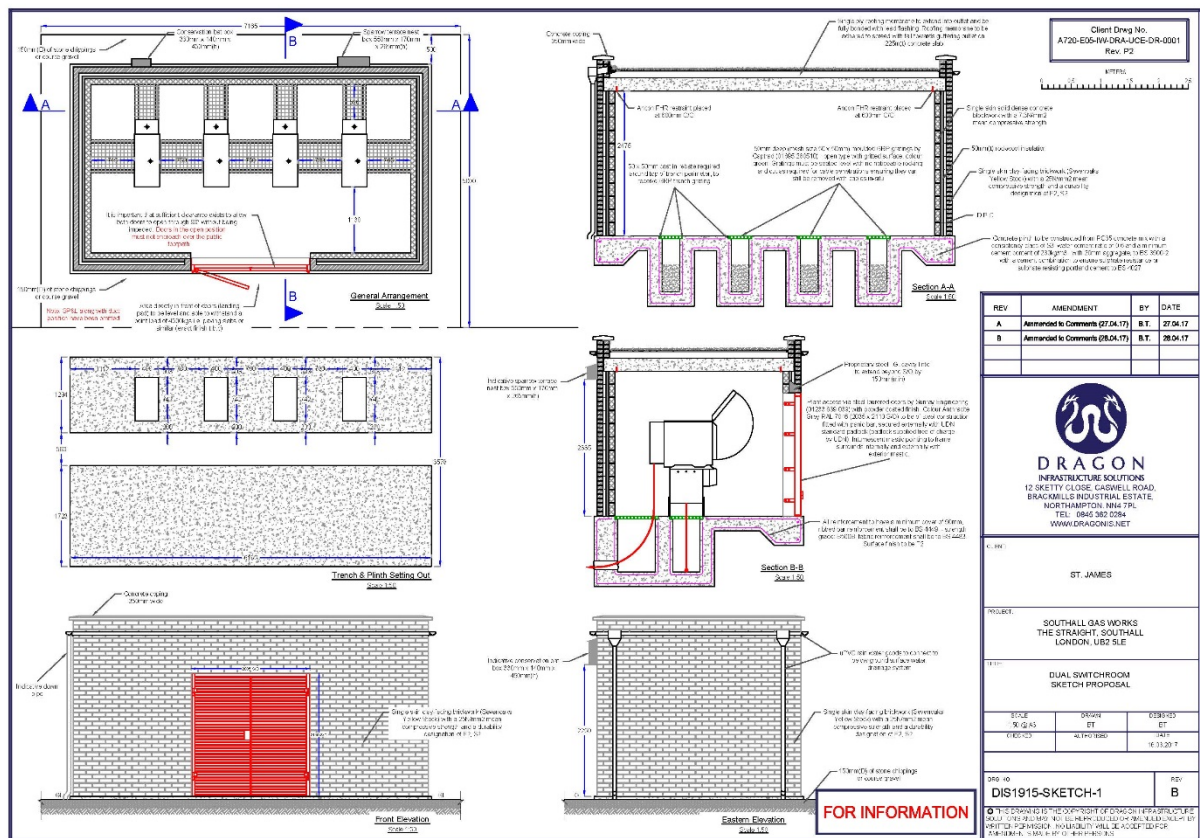


Figure 2: Diagram of Proposed Development

Method

Baseline Conditions

The ecological baseline condition has been defined by reviewing a number of ecological surveys undertaken for the adjacent Southair Waterside development, which included surveys of the application site, undertaken between 2014 and 2017. The following documents were reviewed, and are appended to this document:

- Phase 1 Habitat Survey of Southair Gasworks. June 2014. James Blake Associates Consultancy Services Ltd (JBA);
- Southair Former Gasworks Western Access Clearance (report reference: LUK1121406_ECJulWesternAccess_1). July 2016. Ramboll Environ; and
- Ecological Site Inspection Work Proforma 4 (report reference UK1124029_Proforma_020217). February 2017. Ramboll Environ.

Ramboll Environ's 2016 Southair Former Gasworks Western Access Clearance report summarises a number of previous protected species survey results undertaken for the Southair Waterside development between 2014 and 2016 which are not listed above. The latest ecological survey of the application site was undertaken on the 2nd February 2017.

Vegetation clearance of the application site was undertaken as part of clearance work of the Southall Waterside development in February 2017, following inspections for protected species undertaken by a Ramboll Environ Ecological Clerk of Works (ECoW). The baseline conditions prior to vegetation clearance are described.

Assessment of Importance of Ecological Features

Habitats and species (i.e. ecological features) identified within the application site boundary prior to vegetation clearance were assigned ecological importance values based on the scale that classifies ecological features within a defined geographic context (Chartered Institute for Ecology and Environmental Management, CIEEM 2016¹). The classification uses recognised and published criteria (e.g. Ratcliffe, 1977², Wray et al. 2010³) where the habitats and application site were assessed in relation to their size, diversity, naturalness, rarity, fragility, typicalness, connectivity with surroundings, intrinsic value, recorded history and potential value. The following geographic criteria were used:

- International Level Importance;
- National Level Importance (England);
- Regional Level Importance;
- Borough Level Importance (within LBH);
- Local Level Importance;
- Site Level Importance (limited to the application site boundary); and
- Negligible Importance.

Limitations

The ecological assessment has been undertaken based on CIEEM's 2016 Ecological Impact Assessment Guidelines, taking a proportional approach to the level of survey effort and reporting required due to the small size of the application site and the limited potential impacts of the proposed development. Ramboll Environ is satisfied that this Ecological Assessment represents a robust appraisal of the application site. In the event that no action is taken at the application site within 12 months of the date of the first issue of this Ecological Assessment, the findings of the extended Phase 1 Habitat Survey should be reviewed and may need to be updated.

Baseline

Prior to vegetation clearance, the habitat within the application site comprised plantation broad-leaved woodland with species including young sycamore *Acer pseudoplatanus* and wild cherry *Prunus avium*, with semi-improved grassland and tall ruderal vegetation with perennial rye-grass *Lolium perenne*, common nettle *Urtica dioica* and herb-robert *Geranium robertianum* on the road verge in the west of the application

¹ CIEEM, 2016. Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal. Chartered Institute for Ecology and Environmental Management, Winchester.

² Ratcliffe, D. 1977. A Nature Conservation Review. Cambridge University Press

³ Wray, S., Wells, D., Long, E. and Mitchell-Jones, T. 2010. Valuing Bats in Ecological Impact Assessment. In Practice, pp 23-25

site. Rubbish was prevalent across the application site. These habitats were limited in size and ecological value, and were of importance at the Site Level only.

No invasive species were identified within the application site, although giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera* were present off-site adjacent to the River Crane.

The application site was suitable for use by common invertebrate species. Prior to vegetation clearance was of importance for invertebrates at the Site Level.

No amphibians or reptiles were recorded on the application site during previous surveys, and the habitat was sub-optimal for use by these species. The application site was of Negligible importance for amphibians and reptiles.

The application site was suitable for use by common foraging and nesting birds. Dunnock *Prunella modularis*, blackbird *Turdus merula* and mallard *Anas platyrhynchos* were recorded on and close to the application site during the July 2016 survey. Prior to vegetation clearance, the application site was of importance at the Site Level for common birds.

No trees suitable for use by roosting bats were present within the application site. The habitat was suitable for use by foraging bats, as part of a wider foraging area. Prior to vegetation clearance, the application site was of importance for foraging bats at the Site Level.

No evidence of badgers was identified within the application site. The application site was of Negligible importance for badgers.

Hedgehogs have been recorded in the wider Southall Waterside Western Access area during previous surveys. No nesting or hibernating hedgehog habitat was present on the application site. The site was suitable for occasional use by foraging hedgehogs as part of a resource in the wider area. Prior to vegetation clearance, the application site was of importance for hedgehogs at the Site Level.

The application site was not considered to be suitable for use by any other protected or notable species.

Assessment of Impacts and Mitigation

Vegetation clearance at the application site was undertaken as part of clearance work of the adjacent Southall Waterside development in February 2017, following inspections for protected species undertaken by the ECoW, which confirmed that no nesting birds or other protected species were present. No further earthworks or construction has been undertaken. The proposed development will lead to permanent loss of habitat.

There is the potential for run-off and dust to be blown onto adjacent habits including the River Crane during the construction phase. The proposed development's Construction Environmental Management Plan (CEMP) will include measures to reduce run-off, noise and dust impacts caused during the construction period, to avoid impacts on surrounding habitats.

Construction works in the vicinity of trees to be retained could damage overhanging branches or roots. Retained trees surrounding the application site will be protected in accordance with BS 5837:2012⁴, with suitable Root Protection Areas included.

Seeds of the invasive species Himalayan balsam disperse over a wide area, and as plants are present adjacent of the application site, there is the potential that it may become established on the application site. Any invasive species identified during the construction process will be treated by specialist invasive species contractors.

A small amount of habitat suitable for use by common invertebrates has been removed during the clearance and construction process. It is expected that in time vegetation suitable for use by invertebrates would become established around the proposed development.

All wild birds are protected whilst nesting, with disturbance and destruction of active nests constituting an offence under the Wildlife and Countryside Act 1981 (as amended). Clearance of vegetation has the potential to lead to the loss of active bird nests, and the removal of habitat from the site will lead to the loss of suitable nesting and foraging habitat. In the event that any additional vegetation clearance is required, beyond that which has already been undertaken, this will be undertaken during September to January, which is outside of the bird breeding season. If removal during the nesting season is necessary, this will be preceded by checks for active nests by an experienced ecologist, and if active nests are identified work will be delayed until the nests are no longer active.

The loss of a very small amount of bat foraging habitat will not have a significant effect on bats. During the construction phase, methods will be adopted to reduce construction impacts on bats. This will be described in the CEMP.

Loss of small areas of habitat are unlikely to impact hedgehogs which may make occasional use of the site.

Enhancement

In order to comply with planning policy to ensure no net loss of biodiversity, additional biodiversity enhancement measures will be introduced to account for the loss of a small amount of woodland habitat at the application site.

Landscape planting will be included around the switchroom, with flowering native species such as ivy *Hedera helix* screening, as well as a wildflower meadow.

Logs cleared from the application site will be stacked in a pile near to the switchroom (to the rear), to provide a rotting wood habitat suitable for use by invertebrates, nesting birds and hibernating hedgehogs.

Additional enhancement for birds will be provided through the inclusion of a sparrow terrace bird box on the south side of the switchroom at approximately 2 m high.

Additional enhancement for bats will be provided through the inclusion of a bat box on the south side of the switchroom at approximately 2 m high.

⁴ BS 5837:2012 Trees in relation to design, demolition and construction. Recommendations

Conclusions

The ecological assessment has confirmed that prior to vegetation clearance, the site was of nature conservation importance at the Site Level, with habitats present of importance at up to the Site Level, supporting invertebrate and bird species and potentially foraging bats and hedgehogs of Site Level importance. Impacts on these ecological features as a result of the proposed development relate to the loss of habitats from the site already undertaken during the initial clearance, as well as dust, run-off and noise impacts during the construction process. Commitments to ecological mitigation and enhancement include appropriate timing of work, an appropriate CEMP, appropriate planting and in-built bird and bat boxes.

By undertaking the remaining work in accordance with the mitigation and enhancement measures outlined in this report, no significant residual effects on ecological features will occur, and the proposed development will be in conformity with relevant planning policy and legislation relating to ecology.

Yours sincerely



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Encl. Appendix 1: Phase 1 Habitat Survey of Southall Gasworks Report
 Appendix 2: Southall Former Gasworks Western Access Clearance Letter Report
 Appendix 3: Ecological Site Inspection Work Proforma 4

Appendix 1

Phase 1 Habitat Survey of Southall Gasworks Report

Phase 1 Habitat Survey of Southall Gasworks

on behalf of
Barton Wilmore

June 2014

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Service, value and innovation

Revision	Purpose	Originated	Checked	Authorised	Date
		CA/EM	ER	MD	06/2014
Job Number: JBA 14/27		Title: Phase 1 Habitat Survey of Southall Gasworks			

Disclaimer

JBA Consultancy Services Ltd. have made every effort to meet the client's brief. However, no survey ensures complete and absolute assessment of the changeable natural environment. The findings in this report were based on evidence from thorough survey: It is important to remember that evidence can be limited, hard to detect or concealed by site use and disturbance. When it is stated that no evidence was found or was evident at that point in time, it does not mean that species are not present or could not be present at a later date: The survey was required because habitats are suitable for a given protected species, and such species could colonise areas following completion of the survey.

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Non-technical Summary

Site:	Southall Gasworks, London
Grid Reference (from the centre of the site)	TQ 123 798
Report Commissioned by:	Barton Wilmore
Date of Survey:	15 th April 2014

Considerations	Description	Timings and potential impacts
Statutory and non-statutory sites within 2km:	One Local Nature Reserve and 36 Sites Important to Nature Conservation	No impacts to any statutory or non-statutory sites are predicted
SPA, SAC and Ramsar sites within 7km:	There are no SPAs, SACs or Ramsar sites within 7km of the site.	N/a
Phase 2 surveys:	Survey for birds	During the nesting bird season (March to September)
	Survey for reptiles	Within optimal survey season for reptiles (March to September)
	Surveys for bat activity	May to September
	Internal/external building inspections for bats	Any time of year, but optimally May to September
	Survey for badgers	Any time during year (optimal between February and April)
	Survey for water vole and otter	March to October
	Survey for invertebrates	April to Late July
Phase 2 survey which may be needed (dependent on final layout):	Surveys of trees with bat roost potential if these trees will be impacted	Emergence surveys – May to September Or climb and inspect survey at any time.
Precautionary measures:	Precautionary welfare measures for badgers and other mammals	Immediately prior and for the duration of works
	Demolition of residential buildings and removal of vegetation	Outside of the nesting bird season (March to September) or following a nesting bird survey.
Habitat types:	Hardstanding, woodland, aquatic, scrub, ruderal, semi-improved grassland	

1 Introduction

Background

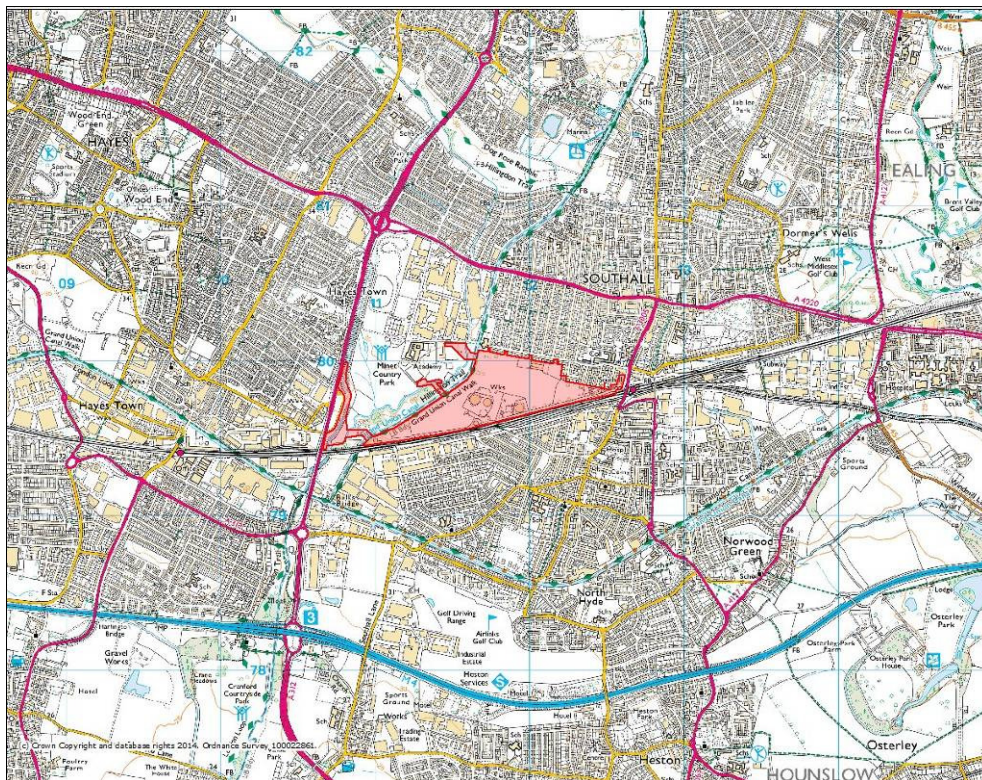
- 1.1 JBA Consultancy Services Ltd were commissioned by Barton Wilmore to undertake a Phase 1 Habitat Survey and Protected Species Scoping Survey of land at Southall Gasworks, London (grid ref TQ 123 798, taken from the centre of the site).
- 1.2 The assessment was required to accompany a planning application to develop the site. A combination of residential, retail, leisure, community and other uses is proposed.
- 1.3 For the purposes of this report, protected species are taken to be those which are protected under European Legislation (Conservation of Habitats and Species Regulations 2010, as amended) and UK legislation (Wildlife and Countryside Act 1981; Protection of Badgers Act 1992); and other priority species and habitats which are a consideration under the National Planning Policy Framework (NPPF) 2012, placing responsibility on Local Planning Authorities to aim to conserve and enhance biodiversity and to encourage biodiversity in and around developments. There is a general biodiversity duty in the NERC Act (Section 40) which requires every public body in the exercising of its functions to 'have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'. Biodiversity, as covered by the Section 40 duty, includes all biodiversity, not just the habitats and species of principal importance which are listed in Section 41 of the act. However, there is an expectation that public bodies would refer to the S41 list when complying with the Section 40 duty.

Site Description

- 1.4 The site was located on the western outskirts of London, in the borough of Ealing. Adjacent to the southern boundary was a railway, with residential areas beyond this. Residential properties were also present along the northern boundary of the site. The western boundary comprised of the Grand Union Canal, beyond which lies Minet Country Park. The wider landscape comprises predominantly of residential properties with some amenity grassland and parkland (see Figure 1 below).
- 1.5 The main site was based on a disused gas works, and was predominantly concrete hard standing, used as a car park, with small areas of scrub and tree rows along the boundaries. Some residential buildings were included within the northern site boundary.

- 1.6 Adjacent to the main site's western boundary were three land parcels proposed as access routes into the future development. This area will be described as Minet Tip land as they lie on a disused rubbish tip, now colonised by woodland, scrub, and semi-improved grassland. Sections of Minet Country Park, the Grand Union Canal and Yeading brook are included within these parcels.
- 1.7 Adjacent to the eastern tip of the main site was a plot also designated as a future access route to the development. This was an area of terraced housing along Randolph Road and The Crescent.

Figure 1: Site location:



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Aims and objectives

- 1.8 The aim of the survey was to:
- Identify the presence, or potential presence, of any protected or notable species or habitats on, or adjacent to, the site;

- assess the potential impact of the proposed works on any protected or notable species and/or habitats present including nature conservation sites on, or adjacent to, the site;
- make recommendations for further surveys and/or mitigation following the survey (if necessary) and provide suggestions to enhance the wildlife value of the site post-development.

2 Methods

Desk study

- 2.1 A 3km radius for statutory designated sites, either on the proposed development site or in the surrounding area, was conducted using “MAGIC”, the Multi-Agency Geographic Information system for the Countryside.
- 2.2 A 7km search for Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar site was also conducted using MAGIC.
- 2.3 The Greenspace Information for Greater London was consulted for records of non-statutory sites and protected and rare species within a 3km search radius (GIGL data provided on the 29th April 2014).
- 2.4 The site is covered by the Local Biodiversity Action Plan (BAP) for London (<http://www.lbp.org.uk>).

Phase 1 Habitat Survey

- 2.5 The survey was undertaken by Ellie Rickman BSc (Hons) MSc ACIEEM (dormouse class licence WML-CL10A, great crested newt class licence WML-CL08); Ali Killingsworth BSc (Hons) MSc (great crested newt class licence WML-CL08); James Booty BSc (Hons) (great crested newt class licence WML-CL08), and Crystal Acquaviva BSc (Hons) MSc MCIEEM (great crested newt class licence WML-CL08; bat class licence WML-CL19 and WML-CL20) on the 15th of April 2014. During the survey, the temperature ranged between 5 and 14°C, there was light air, 20% cloud cover and average visibility.
- 2.6 The survey methodology followed JNCC (Joint Nature Conservation Committee) Guidelines (JNCC, 2010) and included mapping habitat types and identifying all plant species observed on the site, including Wildlife and Countryside Act Schedule 9

invasive plant species such as Japanese knotweed *Fallopia japonica* and giant hogweed *Heracleum mantegazzianum*.

- 2.7 The site was also assessed for signs and evidence of protected, priority and rare species in accordance with approved guidelines, as follows:
- 2.8 **Amphibians:** All known ponds within 500m of the site that could be assessed (were assessed for potential to support breeding protected amphibians, such as great crested newts.
- 2.9 **Bats:** Mature trees within the site boundary, and adjacent to the site boundary, were surveyed externally, from the ground, for their potential to support roosting bats, under the following criteria.

Table 1: Bat survey protocol for trees: (potential bat roosting features were identified in order to categorise trees, as below):

Bat Roost Potential	Field signs
Roost Confirmed	Confirmed bat roost in tree: field evidence of the past or current presence of bats, e.g. droppings, staining.
High roost potential	Splits or cracks in major limbs which develop upwards, smooth surface around entry point, dense ivy-covering, woodpecker/rot holes, significant lifting bark, artificial bird or bat boxes. Ancient or over mature trees where the canopy cannot be fully inspected from the ground.
Medium roost potential	Splits in branches, dense ivy-covering, small cavities, dense epicormic growth, flies around entry point.
Low roost potential	Splits in minor branches, sparse ivy, limited loose bark. Young, healthy tree with good visibility to the top of the canopy.
No roost potential	Trees with a negligible potential to support bat roosts (not supporting any of the above features).

Bat Survey Protocol for buildings

Buildings, which ranged from small security cabins to large warehouses, within the site were externally assessed for signs of past or present usage by roosting bats. Binoculars were used to check for entry points such as cracks or holes, plus evidence of bat activity such as staining, droppings or feeding remains (e.g. butterfly or moth wings) that could indicate past presence of bats.

Residential buildings along the northern site boundary and along Randolph Road and The Crescent were briefly assessed externally from the ground for entry points such as cracks or holes to ascertain whether further external/internal inspections are required.

- 2.10 **Dormice:** A visual survey for the presence of suitable habitat (woodland/suitable hedges with good under-storey/shrub layer and a range of food plant species, such as hazel, bramble and honeysuckle) was carried out, to assess if dormice were likely to be present.
- 2.11 **Reptiles:** A visual survey for the presence of suitable habitat was carried out according to the criteria given in the Herpetofauna Workers' Manual (Gent and Gibson, 1998).
- 2.12 **Otters and water voles:** a visual appraisal of all water bodies was carried out, to assess suitability to support these species, including: size and flow of water course; shape and vegetation cover/structure of the banks.
- 2.13 **Invertebrates:** The site was scoped for significant rotting deadwood, and high quality aquatic or other habitats which could be used by significant assemblages of invertebrates, or by any of the invertebrates highlighted in the data search. Any water bodies were assessed for potential to support white-clawed crayfish.
- 2.14 **Flora and habitats:** All habitats and plant species which were identifiable at the time of the survey were recorded.
- 2.15 **Badgers:** A visual survey for setts, hair, latrines, prints, snuffle marks or other signs of badgers was undertaken within the site boundary.
- 2.16 **Birds:** A visual survey of bird activity and suitable nesting habitat was carried out, to determine if any areas would be suitable for WCA Schedule 1 birds, Birds of Conservation Concern or other common and widespread nesting birds.
- 2.17 **Adjacent Habitat:** Habitats close to the site were identified, using aerial maps and field observation, so that the ecological impact of the proposed works on the wider landscape could be assessed.

3 Results

Desk Study

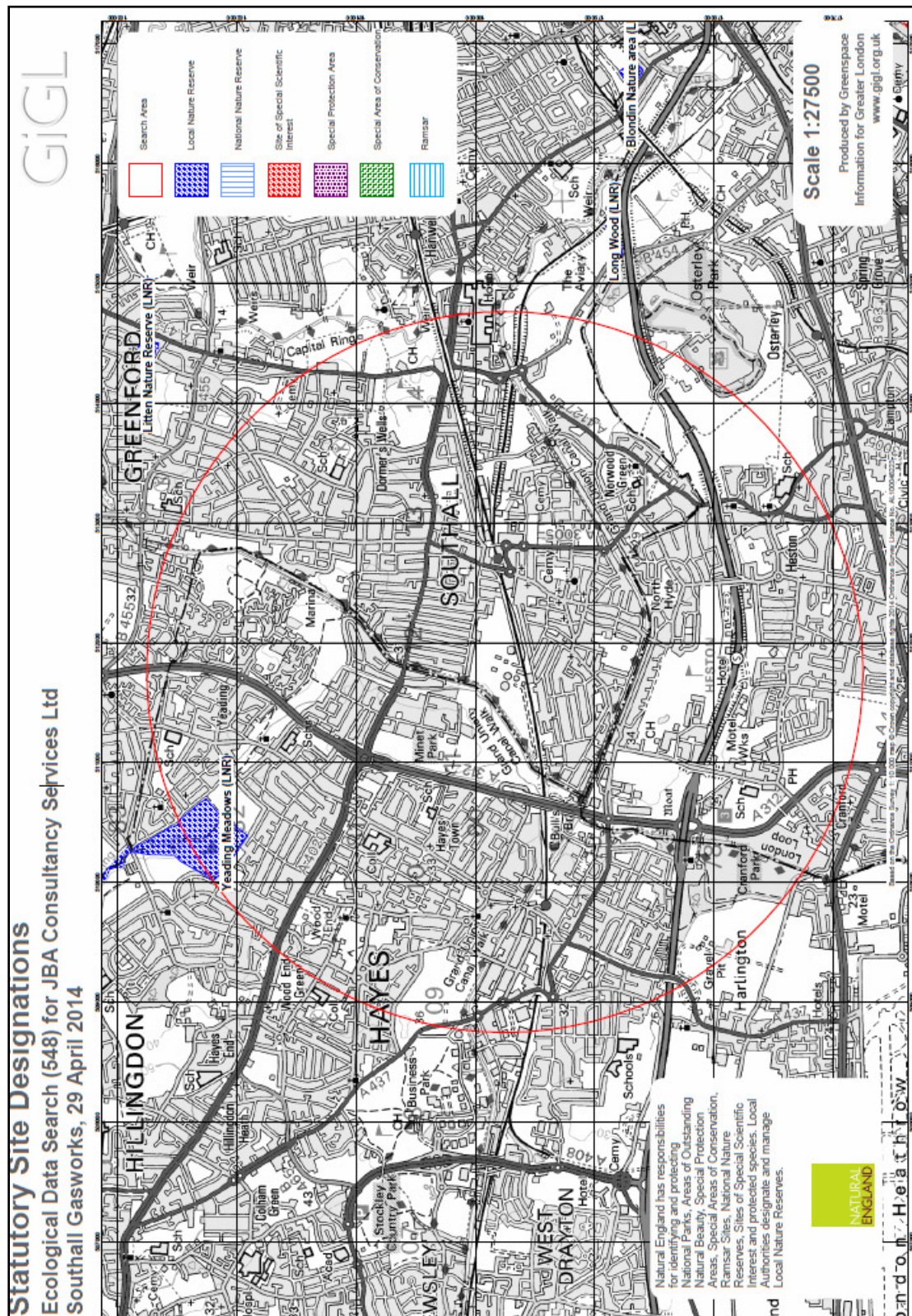
Statutory Nature Conservation Sites within 3km of the site, excluding Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites

- 3.1 There was one statutory designated site within 3km of the site: Yeading Meadows Local Nature Reserve (LNR). This is detailed in Table 2 and shown in Figure 2.

Table 2: Statutory conservation sites within 3km

Site Name	Designation	Distance from Site	Description
Yeading Meadows	LNR	1.9 km north west	Yeading Meadows is a wild flower meadow with Yeading brook running through it. It hosts an array of wildlife including Roesel's bush-cricket, skylark, snipe, narrow-leaved water-dropwort and small heath and common spotted-orchid.

Figure 2: Statutory conservation sites within 3km of the site



Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites within 7km of the site.

- 3.2 A 7km radius search was carried out for SPAs, SACs and Ramsar sites. There were no sites recorded within 7km of the proposed development area.

Non-Statutory Nature Conservation Sites

- 3.3 There were 36 non-statutory conservation sites within 3km of the site. These were all Sites of Importance for Nature Conservation (SINCs) and are listed in Table 3 and shown in Figure 3. Full site descriptions can be found in Appendix D.

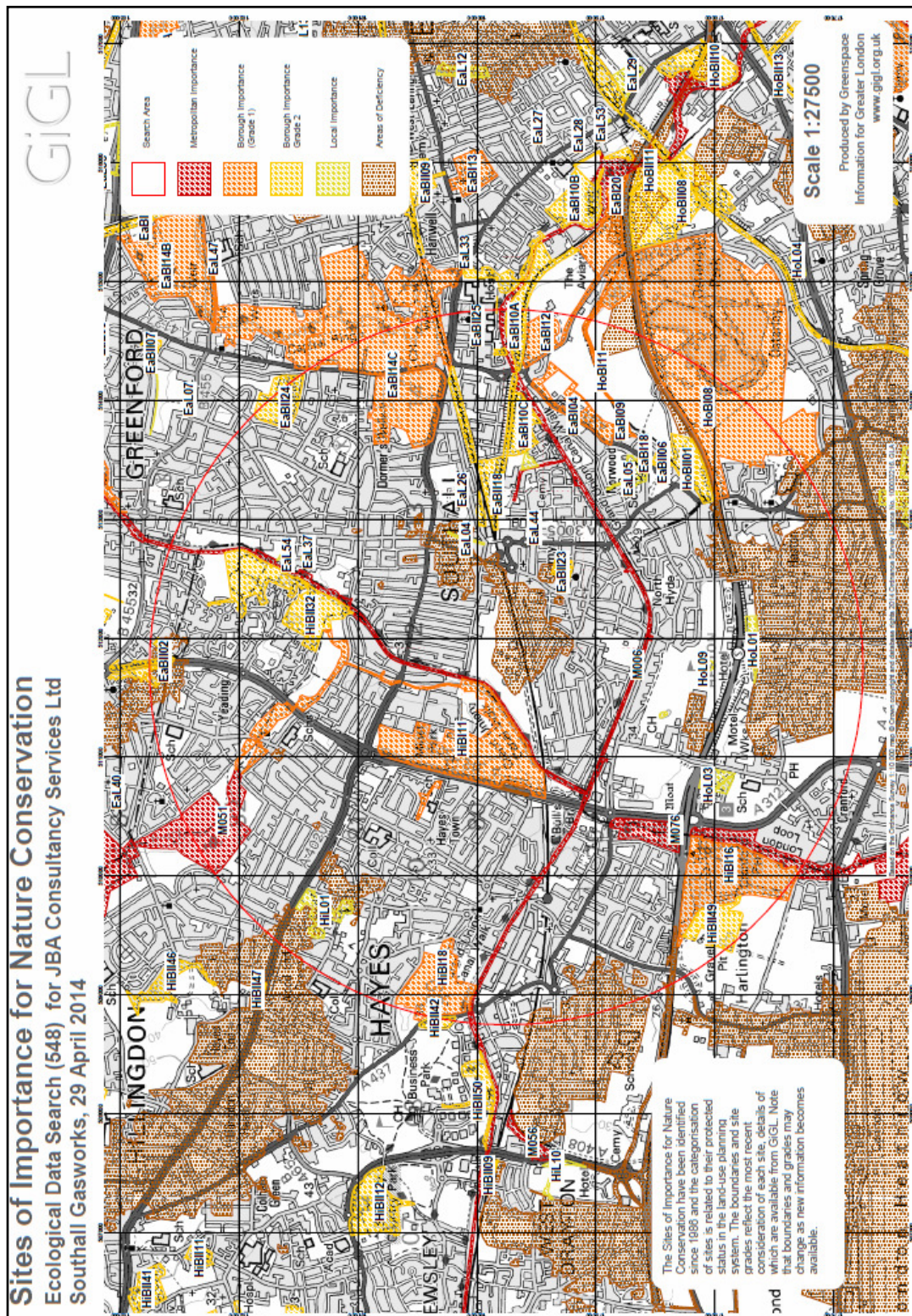
Table 3: Non-statutory conservation sites within 2km of the site

Site Name	Site Reference	Distance from Site	Brief Description
London's Canals	M006	3km north east	Canals with aquatic flora and fauna
Yeading Brook Meadows	M051	3km north west	Mosaic of unimproved meadows and pastures on Yeading Brook floodplain.
Crane Corridor	M076	3km south	Wetland Habitats
Tentelow Lane Woodland and Meadow	EaBI04	1.5km east	A fine ancient woodland
Boundary Stream and the Aviary	EaBI09	1.8km east	Section of stream with semi-natural woodland and grassland
Brent River Park South: Blackberry Corner, Jubilee Meadow, Trumpers Field & Fox	EaBI10A	2.9km east	A wooded section of the River Brent and adjacent hay meadows.
Brent River Park South: Glade Lane Canalside Park	EaBI10C	1.4km east	A mixture of valuable wildlife habitats.
Long Wood Local Nature Reserve and meadows	EaBI12	3km east	One of the finest ancient woods in Ealing and adjacent pastures.
Brent River Park North: Brent Valley Golf Club to Uxbridge Road	EaBI14C	2.3km north east	Golf courses with good grassland and other habitats.
St Mary the Virgin Churchyard, Norwood Green	EaBI18	1.1km east	Churchyard with flowery grassland and seven fern species.
Yeading Brook, Minet Country Park and Hitherbroom Park	HiBI11	1.6km east	Reclaimed, derelict land with a variety of habitats including natural meadow and aquatic habitats
Cranford	HiBI16	3km north	A managed park with a mixture of important

Countryside Park and Open Space			wildlife habitats including hay meadows
Lake Farm Country Park	HiBI18	3km west	Predominantly semi-improved neutral grassland
Osterley Park	HoBI08	2.8km south east	An attractive landscaped park with several ponds and lakes, areas of woodland and some magnificent old trees.
St Mary's Wood and the Boundary stream	HoBI11	1.9km south east	A clear, fast-flowing stream fringed with willows, known to support kingfishers, tufted duck and pochard.
Hayes By-pass Roughs	EaBI02	3km north	Extensive areas of woodland, scrub and grassland adjacent to the main road
Field and wood between Osterley lane & St. Mary's Avenue South	EaBI06	1.9km south east	Horse grazed paddocks, a small wood with several fine oak and ash trees, and the roadsides of Osterley lane
Southall railsides	EaBI18	1.3km south east	Rail line with good ruderal communities on the tracks and in adjacent land in the west
Havelock cemetery	EaBI23	560m south	Cemetery with very flower rich grassland
Greenford Park cemetery	EaBI24	2.5km north east	Large cemetery with quite flowery grassland and scattered hedgerows, trees and shrubs
St Bernard's Hospital walls	EaBI25	2.2km east	Old walls supporting seven fern species including several uncommon species
Willowtree Park	HiBI32	1.7km north	A mixture of publicly accessible wildlife habitats including meadows and wetlands
Bolingbroke Way Sunken Pastures	HiBI42	3km west	A lightly horse grazed meadow with good vegetation structure and diversity
Cranford Lane Gravel Workings	HiBI49	3km south west	Spoil heaps colonised by nature, with a meadow to the north
Norwood Fields	HoBI01	1.9 km south	A series of small pastures with fine old hedgerows and large mature trees
Avenue Road Hedge	EaL04	500m north east	Remnants of an ancient hedgerow surviving in a heavily built up area
Norwood Hall woodlands	EaL05	960m east	Secondary woodland with a variety of trees and shrubs
Southall Park Nature Conservation Area	EaL26	1.1km east	A section of public park managed for nature conservation with a rough meadow and a pond
Cranleigh Park Rough	EaL37	1.6km north	Interesting area of developing wasteland vegetation with a small meadow
Whittle Road Park	EaL38	1.2km east	Rough grassland which supports good populations of invertebrates
Hortus Cemetery	EaL44	600m south east	Cemetery with nice grasslands with abundant populations of some common herbs
Lady Margaret Road	EaL54	1.8km north	No information available
St. Mary's Wood End	HiL01	3km north west	A complex of open spaces with a good variety of wildlife habitats

Thornccliffe Rough	HoL01	2.5km south	A piece of disused land with a colourful range of wild flowers, in an area with little accessible natural greenspace
Hartlands Wood and Lower Park Farm	HoL03	2.5km south west	A small wood and adjacent field, attracting plenty of birds
Airlinks Pond	HoL09	1.7km south west	Two reed-fringed ponds on a highly managed golf course

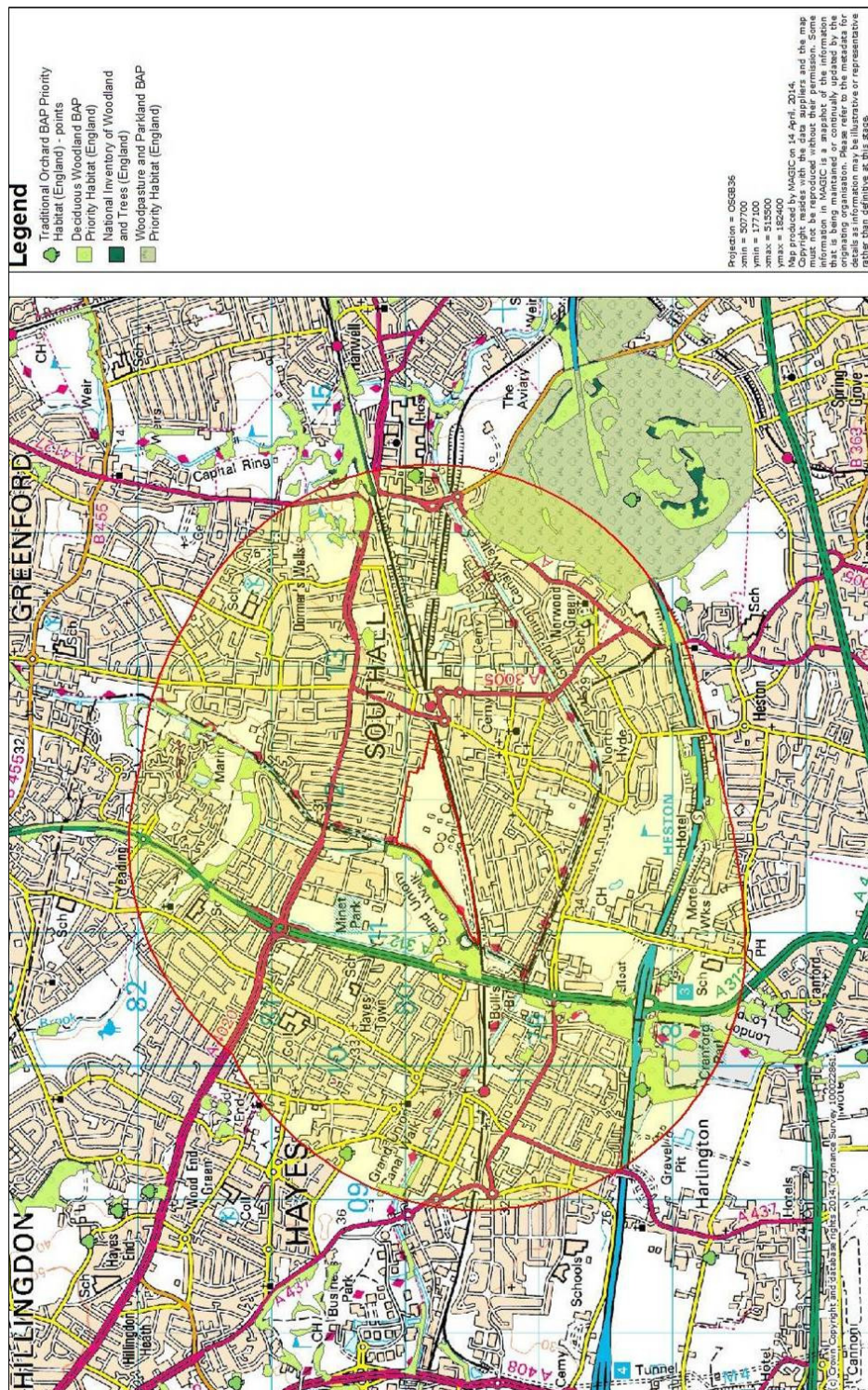
Figure 3: Non-statutory sites within 2km



Habitat Types within 2km

- 3.4 Habitat types within the area included traditional orchards, deciduous woodland, wood pasture and parkland and are shown in Figure 4. The nearest woodland lies adjacent to the Grand Union Canal, in Minet Park, which makes up the western boundary of the site.

Figure 4: Habitat types within 2km



Protected, priority and rare species

- 3.5 The Birds of Conservation Concern (BoCC) are split into three criteria. The red list is the highest conservation priority (species needing urgent action). The amber list is the next most critical group, followed by green. Red listed species are those that are globally threatened according to IUCN criteria, species with populations or ranges that have declined rapidly in recent years, and those that have declined historically and have not shown a substantial recent recovery.
- 3.6 Full lists of UK Priority and protected amphibians, reptiles and mammals are shown below. A reduced list of UK priority and protected birds, flora and invertebrates is shown; these have been selected based on their likelihood of being recorded at the site given the habitats types present.
- 3.7 There were records for 80 nationally or locally protected plant species, in addition to those listed below, within the same 10km square as the site and/or with the most recent record greater than 30 years old.

Mammals	Protection	Approximate distance from site	Year of Record
Badger	Protection of Badgers Act 1992	Within 3km	2012
Hedgehog	NERC & LBAP	2.3 km	2009
Water vole	European protected, NERC & LBAP	2.3km	2004
Noctule bat	European protected, NERC & LBAP	2.6km	2003
Common pipistrelle	European protected and LBAP	2.3km	2003
Soprano pipistrelle	European protected, NERC & LBAP	2.6km	2009
Brown Long-eared bat	European protected, NERC & LBAP	2.3 km	2003
Serotine bat	European protected and LBAP	2.5km	1994

Birds	Protection	Approximate distance from site	Year of Record
Yellow-legged gull	BoCC red list; LBAP	2.6km	2002
Little egret	Birds Directive Annex 1	Within 1km square	2010
Herring Gull	BoCC red list; LBAP	276m Within 1km square	2004 2010
Mediterranean gull	WCA Schedule 1	2.8km	2006

European turtle dove	BoCC red list; NERC; LBAP	2.8km	2001
Common cuckoo	NERC; BoCC red list; LBAP	830m	2005
Lesser spotted woodpecker	BoCC red list; LBAP	2.1km	1994
Sky Lark	NERC; BoCC Red list; LBAP	Within 1km square	2010
Yellow wagtail	BoCC Red list; LBAP	830m	2005
Common kingfisher	WCA Schedule 1	360m	2009
Dunnock	LBAP	830m 2.2km	1999 2012
Black redstart	WCA Schedule 1; LBAP	2.8km	2005
Fieldfare	WCA Schedule 1; BoCC red list	Within 1km square	2010
Song thrush	LBAP; BoCC red list	1km 2.2km	2005 2012
Redwing	BoCC red list; WCA Schedule 1	Within 1km square	2010
Common grasshopper warbler	NERC; LBAP; BoCC red list	830m	2005
Spotted flycatcher	NERC; BoCC red list; LBAP	2.8km	2007
Common starling	BoCC red list; LBAP	Within 1km square	2010
House sparrow	NERC; LBAP; BoCC red list	300m	2005
Brambling	WCA Schedule 1	2.8km	2007
Common Redpoll	LBAP	Within 1km square	2010
Common Bullfinch	LBAP	Within 1km square	2010
Peregrine falcon	WCA Schedule 1; LBAP	Within 3km	2005
Barn owl	WCA Schedule 1	Within 3km	1987

Plants	Protection	Approximate distance from site	Year of Record
Cornflower (<i>Centaurea cyanus</i>)	NERC	730m	2004
Galingale (<i>Cyperus longus</i>)	RLGB: Near threatened	830m	2005
Bluebell (<i>Hyacinthoides non-scripta</i>)	European protected	1.1km 1.7km	2005 2012
Wild Pansy (<i>Viola tricolor</i>)	RLGB: Near Threatened	2.9km	2003
Mistletoe (<i>Viscum album</i>)	LBAP	2.3km	2001
Field woundwort (<i>Stachys arvensis</i>)	RLGB: Near Threatened	2.9km	2012
Loose silky-bent	RLGB: Near threatened	Within 2km square	1982

Narrow-leaved water-dropwort (<i>Oenanthe silaifolia</i>)	RLGB: Near threatened And LBAP	Within 2km square	2005
Stinking goosefoot	European protected, NERC and RLGB: Endangered	Within 2km square	1988
Green-winged orchid (<i>Orchis morio</i>)	RLGB: Near threatened	Within 2km square	1984

Amphibians	Protection	Approximate distance from site	Year of Record
Toad	NERC and LBAP	1km 2.8km	2007 2011

Reptiles	Protection	Approximate distance from site	Year of Record
Grass Snake	Partially protected under the WCA Schedule 5 NERC and LBAP	500m	2005
		2.7km	2012
Slow worm		2.2km	2012

Invertebrates	Protection	Approximate distance from site	Year of Record
Stag beetle	Hab & Spp Dir Anx 2, NERC & LBAP	1.1km	2005
		2.6km	2009
Sallow guest weevil	NERC	1km	2004
White letter hairstreak	NERC & LBAP; JNCC red list - endangered	2.3km	2010
Small heath	UK & LBAP; JNCC red list – near threatened	800m	2004
		2.4km	2010
Ghost moth	NERC & LBAP	750m	2003
Lackey	NERC & LBAP	2.9km	1999
Oak hook-tip	NERC & LBAP	2.9km	1999
Blood-vein	NERC & LBAP	2.7km	2009
Mullein wave	NERC & LBAP	2.9km	2002
Dark-barred twin-spot carpet	NERC & LBAP	2.9km	2002
Shaded broad-bar	NERC & LBAP	2.9km	1999
Dusky thorn	NERC & LBAP	2.9km	1999
Brindled Beauty	NERC & LBAP	2.9km	2000
White ermine	NERC & LBAP	750m	2003
		1.2km	2010
Buff ermine	NERC & LBAP	2.7km	2009
Cinnabar	NERC & LBAP	280m	2005
		2.7km	2009

Golden dart	NERC & LBAP	1.2km	2008
Small square-spot	NERC & LBAP	2.9km	2001
Dot moth	NERC & LBAP	2.9km	2002
Powdered quaker	NERC & LBAP	1.2km 2.7km	2008 2009
Shoulder-striped wainscot	NERC & LBAP	750m	2003
Deep brown dart	NERC & LBAP	2.9km	2002
Green-brindled crescent	NERC & LBAP	2.9km	1997
Dark brocade	NERC	1.2km	2009
Brown-spot pinion	NERC & LBAP	2.9km	2002
Beaded chestnut	NERC & LBAP	2.9km	2002
Centre-barred sallow	NERC & LBAP	2.9km	2002
Sallow	NERC & LBAP	2.9km	2000
Dusky-lemon sallow	NERC & LBAP	2.9km	1999
Grey dagger	NERC & LBAP	2.9km	2002
Knot grass	NERC & LBAP	2.7km	2009
Mouse moth	NERC & LBAP	1.2km	2008
Dusky brocade	NERC & LBAP	750m	2003
Large nutmeg	NERC & LBAP	2.9km	2002
Rosy minor	NERC & LBAP	870m	2008
Rosy rustic	NERC & LBAP	2.9km	2002
Large Wainscot	NERC	2.9km	1999
Rustic	NERC & LBAP	1.2km	2009
Mottled rustic	NERC & LBAP	2.9km	2002

WCA = Wildlife and Countryside Act 1981 as amended; NERC = Species of Principle Importance in England; LBAP = Local Biodiversity Action Plan; BoCC = Birds of Conservation Concern. RLGB = Red List Great Britain, Hab & Spp Dir Anx 2 = Habitats and Species Directive Annex 2.

Phase 1 Habitat Survey

- 3.8 Appendix A shows a Phase 1 habitat map of the site, with Target Notes. A list of plant species identified on the site is included in Appendix B.

Limitations and Assumptions

- 3.9 The baseline conditions reported and assessed in this document represent those identified at the time of the survey on the 15th April 2014. Although a reasonable assessment of habitats present can be made during a single walkover survey, seasonal variations are not observed. The full plant species list (Appendix B) was based on the current site visit. The survey was conducted in April, which is within the optimal season for Phase 1 habitat surveys. Most areas of the site were accessible on the day of the survey, however a small number of areas (Target Notes 13, 14, 19) were not easily accessible and had to be assessed from a distance.
- 3.10 The desk study used available records and historical data from the local area. However, this does not provide a reliable indication of species present since records depend entirely on survey effort in the area, which is highly variable. The data are useful as a general guide to supplement the site visit, but absence of records does not reflect absence of species.

Target Notes

Target Note	Habitat description	Photo
Main site		
1	The majority of the site consisted of hard standing with common tall ruderal vegetation along the site boundary. Plant species included cleavers (<i>Galium aparine</i>), groundsel (<i>Senecio vulgaris</i>), hogweed (<i>Heracleum sphondylium</i>) and Yorkshire fog (<i>Holcus lanatus</i>).	