



2 Gatehill Road,
Northwood

Preliminary Ecological Appraisal

Prepared by
CSA Environmental

on behalf of
Tilehouse Ltd.

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This report may contain sensitive ecological information. It is the responsibility of the Local Authority to determine if this should be made publicly available.

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EXECUTIVE SUMMARY

Conversion of an existing dwelling into four flats is proposed at 2 Gatehill Road, Northwood, for which detailed planning permission will be sought.

CSA Environmental was instructed by Tilehouse Ltd. to undertake a Preliminary Ecological Appraisal (PEA) of the Site to identify ecological constraints to development, inform recommendations for design, highlight opportunities for ecological enhancement and determine any additional investigation/survey work necessary.

As part of this PEA, a desk study and extended Phase 1 Habitat survey of the Site were undertaken in July 2020. The Site comprises a two storey detached house and a detached garage, surrounded by associated gardens and a driveway

Habitats currently present within the Site are generally common and widespread, with the greatest ecological interest associated with the boundary hedgerows; although these are all species-poor and contain some non-native species. However, it is recommended that these should be retained and protected wherever possible.

A Preliminary Roost Assessment identified both buildings as having 'high' potential for roosting bats. A series of three dusk emergence surveys were undertaken to confirm presence/likely absence. No bats were seen to emerge from either of the buildings during the surveys and likely absence of a bat roost has been concluded. However, during the surveys a number of bat passes were recorded, predominantly associated with common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle bats *Pipistrellus pygmaeus* foraging around the gardens of the Site. Therefore, a sensitive lighting strategy in regards to bats is recommended.

No overriding constraints to development of the Site have been identified. Recommendations have been provided for ecological enhancement measures that could be delivered as part of the proposed development.

1.0 INTRODUCTION

- 1.1 This report has been prepared by CSA Environmental on behalf of Tilehouse Ltd. It sets out the findings of a Preliminary Ecological Appraisal (PEA) of 2 Gatehill Road, Northwood (hereafter referred to as 'the Site'). Conversion of the existing dwelling into four flats to include side and rear extensions in addition to the demolition of the existing garage to facilitate the construction of a new cycle and refuse store is proposed at the Site, for which detailed planning permission will be sought.
- 1.2 The scope of this appraisal has been determined with due consideration for best-practice guidance provided by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017), and to the *Biodiversity: Code of practice for planning and development* (BS 42020:2013) published by the British Standards Institution (2013).
- 1.3 The Site occupies an area of c. 0.12ha and is located around central grid reference TQ 09920 91332, to east of Northwood. It consists of a two storey detached house and a detached garage, surrounded by associated gardens and a driveway (see Habitats Plan in Appendix A).
- 1.4 A desk study and extended Phase 1 Habitat survey were undertaken of the Site, the findings of which are presented herein.
- 1.5 This PEA aims to:
 - Identify any ecological constraints to development of the Site
 - Inform design decisions
 - Identify further ecological surveys and investigation necessary to inform a full Ecological Impact Assessment (EclA) of the Site
 - Highlight opportunities for ecological enhancement
- 1.6 As set out in best practice guidelines (CIEEM, 2017) a PEA is typically only suitable for planning submission where there are no ecological constraints relating to the project. Where ecological constraints are identified, such as the presence of important ecological features, the effects of development on these features should be assessed within a separate EclA report, which would supersede the PEA.

2.0 LEGISLATION, PLANNING POLICY & STANDING ADVICE

Legislation

- 2.1 Legislation relating to wildlife and biodiversity of particular relevance to this PEA includes:
- The Conservation of Habitats and Species Regulations 2017 (as amended)
 - The Wildlife and Countryside Act 1981 (as amended)
 - The Natural Environment and Rural Communities (NERC) Act 2006
 - The Protection of Badgers Act 1992
- 2.2 This above legislation has been addressed, as appropriate, in the production of this report. Further information on the above legislation is provided in Appendix B.

National Planning Policy

- 2.3 The National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2019) sets out the government planning policies for England and how they should be applied. Chapter 15: Conserving and Enhancing the Natural Environment, is of particular relevance to this report as it relates to ecology and biodiversity. Further details are provided in Appendix B.
- 2.4 The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their effects within the planning system.

Local Planning Policy

- 2.5 A number of local planning policies relate to ecology, biodiversity and/or nature conservation. These are summarised in Table B.1 of Appendix B. These policies have been addressed, as appropriate, in the production of this report.

Standing Advice

- 2.6 Natural England and Defra's Standing Advice (Natural England & Defra, 2014) regarding habitats and protected species aims to support local authorities and forms a material consideration in determining applications in the same way as any individual response received from Natural England following consultation. Standing advice has therefore been given due consideration, alongside other detailed guidance documents, in the production of this report.

3.0 METHODS

Desk Study

- 3.1 The Multi-Agency Geographic Information for the Countryside (MAGIC) online database was reviewed in July 2020 to identify nature conservation designations within the following search radii:
 - Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar sites within 10km of the Site (including possible/proposed sites)
 - Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Local Nature Reserves (LNR) within 3km of the Site
 - Other relevant data e.g. Ancient Woodland Inventory within 1km of the Site
- 3.2 A review was undertaken of the location of any such designations, their distance from and connectivity with the Site, and the reasons for their designation. This information was used to determine whether they may be within the Site's zone of influence.
- 3.3 Greenspace Information for Greater London (GIGL) and Hertfordshire Environmental Records Centre (HERC) were both contacted for details of any non-statutory nature conservation designations and records of protected/notable habitats and species, as the 1km buffer from the Site falls across the boundaries of both of these records centres. This information was requested from HERC for an area encompassing the Site and adjacent land within c. 2km of its central grid reference and from GIGL from within 1km of its central grid reference. This search area was selected to include the likely zone of influence upon non-statutory designations and protected or notable habitats and species.
- 3.4 Further online resources were reviewed for information which may aid the identification of important ecological features. The Woodland Trust's online Ancient Tree Inventory was reviewed for known ancient or veteran trees within the Site and adjacent land. Interactive online mapping provided by the charity 'Buglife' was used to determine whether the Site falls within an Important Invertebrate Area.
- 3.5 In accordance with Natural England's Great Crested Newt Mitigation Guidelines (2001), a desktop search was undertaken to identify ponds within 500m of the Site which may have potential to support breeding great crested newts *Triturus cristatus*, using Ordnance Survey (OS) mapping, the MAGIC database and aerial photography.
- 3.6 All relevant desk study data are presented in Appendix C.

Field Survey

Extended Phase 1 Habitat Survey

- 3.7 An extended Phase 1 Habitat survey was carried out in fine and dry weather conditions, with a short down pour of rain at the end of the survey, on 02 July 2020 by Tilly Fitzwebster ACIEEM, encompassing the Site and immediately adjacent habitats that could be viewed.
- 3.8 Phase 1 Habitat survey is a method of classification and mapping wildlife habitats in Great Britain. It was originally intended to provide “...*relatively rapidly, a record of the semi-natural vegetation and wildlife habitat over large areas of countryside.*” The Phase 1 Habitat survey method has been widely ‘extended’ beyond its original purpose to allow the capture of information at an intermediate level between Phase 1 and Phase 2 Habitat surveys, and here includes the following:
- More detailed floral species lists for each identified habitat
 - Descriptions of habitat structure, the evidence of management and a broad assessment of habitat condition
 - Mapping of additional habitat types (e.g. hardstanding)
 - Identification of Priority Habitats under Section 41 of the NERC Act
 - Identification of Habitats Directive Annex I habitat types
 - Evidence of, or potential for, European Protected Species (EPS) (including bats, great crested newt, dormouse and otter)
 - Evidence of, or potential for, other protected species (including birds, reptiles, water vole, badger and certain invertebrates)
 - Evidence of, or potential for, other notable species (including S41 Species of Principal Importance as well as notable, rare, protected or controlled plants and invertebrates)
- 3.9 Results of the extended Phase 1 Habitat survey are presented on the Habitats Plan in Appendix A. Appendix D provides a list of floral species recorded in each habitat.

Preliminary Roost Assessment (Structures)

- 3.10 All accessible buildings on-site were inspected and assessed for their potential to support roosting bats, with due consideration for the *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2016). Full survey methods and results are provided in Appendix E.

Limitations

- 3.11 There were no specific limitations to the desktop study or extended Phase 1 Habitat survey, which was conducted at an optimum time of year and in good conditions. However, due to health and safety considerations in relation to the Covid-19 outbreak, an internal inspection of the on-site buildings was not undertaken as part of the Preliminary Roost Assessment; inspection was limited to external areas only. Whilst lack of internal inspection is identified as a limitation, is not

considered to have undermined the objectives of the survey since external features alone exhibited potential enough to classify the building as having 'high' bat roost potential and to warrant a total of three dusk/dawn surveys, in line with BCT guidelines.

Evaluation and Assessment

- 3.12 The evaluation and assessment of ecological features is beyond the scope of a PEA and has therefore not been undertaken here. Formal evaluation and assessment of any identified important ecological features should be undertaken as part of either a full EclA, or receptor-specific survey and assessment in accordance with the published CIEEM method (CIEEM, 2018).

4.0 BASELINE ECOLOGICAL CONDITIONS

Nature Conservation Designations

Statutory

- 4.1 There are no statutory designations covering any part of the Site.
- 4.2 No international statutory designations (SPA, SAC or Ramsar sites) were identified within 10km of the Site.
- 4.3 Two national statutory designations were identified within 3km of the Site. These were the Ruislip Woods SSSI and NNR, both c. 1.5km south-west of the Site.
- 4.4 Three local statutory designations were identified within 3km of the Site. These were the Oxhey Woods LNR (c. 0.8km north-east of the Site), Prestwick Road Meadows LNR (c. 1.9km north-east of the Site) and Batchworth Heath LNR (c. 2.0km north-west of the Site).
- 4.5 These statutory designations are described in Table 1 below. Based on the small scale of the proposed development and the poor habitat connectivity between the Site and the identified designations, it is considered that development of the Site is unlikely to cause significant effects on any of the aforementioned designations, which is therefore not taken to represent a constraint to development.

Non-Statutory

- 4.6 Nine non-statutory designations were identified within 2km of the Site. Those identified by GiGL were: Hog's Back Open Space (formerly Borough Hill) SINC (c. 0.38km south-east of the Site), Potter Street Hill North Pasture SINC (c. 0.48km north-east of the Site), Potter Street Hill SINC (c. 0.58km east of the Site), Northwood Railway Cutting SINC (c. 0.72km west of the Site), Haste Hill Golf Course, Northwood Golf Course and Northwood Park SINC (c. 0.90km south-west of the Site) and Pinnerwood Park and Ponds SINC (c. 0.96km east of the Site).
- 4.7 Those identified by HERC were: the Sandy Lodge Golf Course LWS (c. 1.80km north-west of the Site), Prestwick Road Meadows, South LWS (c. 1.90km north-east of the Site) and Oxhey Woods LWS (c. c. 0.83km north-east of the Site). The latter two sites cover the same areas as the aforementioned LNR.
- 4.8 Due to the small scale of the proposals and the lack of public access to the majority of the above sites and existing management plans in place for those which are accessible and take into account public access, the proposed development is considered unlikely to cause significant effects on any of the aforementioned designations.
- 4.9 These non-statutory designations are described in Table 2 below.

Table 1. Statutory Designations within search radii

Site Name & Designation	Distance & Direction from Survey Area	Special Interests or Qualifying Features
National Designations within 3km		
Ruislip Woods SSSI	c. 1.5km south-west	Designated on account of its ancient semi-natural woodland (including some of the largest unbroken blocks that remain in Greater London); in addition to acidic grass-heath mosaic and areas of wetland. These habitats and especially the woodland contain a number of plant and insect species that are nationally rare or scarce; such as heath spotted orchid <i>Dactylorhiza maculata</i> , light orange underwing <i>Archiearis notha</i> and lead-coloured drab <i>Orthosia populeti</i> moths associated with aspen, the great oak beauty moth <i>Boarmia roboraria</i> and the soldier fly <i>Xylomyia maculata</i> , which is confined to a few ancient woodlands containing overmature trees with rot holes.
Ruislip Woods NNR	c. 1.5km south-west	The NNR covers the same area as the SSSI designation and is owned and managed by the London Borough of Hillingdon, with management activities and engagement events supported by the Ruislip Woods Trust, a registered charity since in 1997, and the Ruislip Woods Management Advisory Group (RWMAG), which advises Hillingdon Council on the management of Ruislip Woods and the preservation of their ecology.
Local Designations within 3km		
Oxhey Woods LNR	c. 0.8km north-east	Owned and managed by Three Rivers District Council, Oxhey Woods is the largest LNR in the district, designated on account of its Ancient Woodland and heathland habitats and noted for its wild service trees <i>Sorbus torminalis</i> .
Prestwick Road Meadows LNR	c. 1.9km north-east	Remnant of wildflower rich hay meadows and pastures, a habitat type of which 97% has been lost from Britain since the 1940s. Ancient hedgerows that separated the fields are also still present, as well as seasonal ponds. The habitats support a variety of insects, birds and amphibians.
Batchworth Heath LNR	c. 2.0km north-west	An ancient common comprising unimproved acid grassland, a pond with diverse patches of marshy grassland marginal flora, as well as neutral grassland, scrub and secondary woodland habitats. Acid grassland plants include tormentil <i>Potentilla erecta</i> , sheep's sorrel <i>Rumex acetosella</i> , heath bedstraw <i>Galium saxatile</i> and oval sedge <i>Carex leporina</i> . Marginal aquatic flora includes the Herts Rare species bladderwort <i>Utricularia australis</i> , which was most recently recorded in 1992; though it is now largely dominated by <i>Crassula helmsii</i> , an invasive non-native species. The scrub and woodland reflect encroachment on the historic common which took place over a long period when it was neither grazed nor cut. Pollinator-friendly wildflowers are present in the areas of neutral grassland including bird's-foot trefoil <i>Lotus corniculatus</i> and common knapweed <i>Centaurea nigra</i> .

Table 2. Non-Statutory Designations within search radii

Site Name & Designation	Distance & Direction from Survey Area	Special Interests or Qualifying Features
Non-Statutory Designations within 2km		
Hog's Back Open Space (formerly Borough Hill) SINC	c. 0.38km south-east	A hillside site where narrow paths wind through dense woodland, grassland and scrub; owned by London Borough of Hillingdon with free public access. Honeysuckle <i>Lonicera periclymenum</i> is abundant in the woodland. Wood avens <i>Geum urbanum</i> is also present. Nectar-feeding insects are abundant on brambles <i>Rubus fruticosus</i> agg. in sunny but sheltered situations. The grassland at the top of the hill is quite rich in wild flowers, within a sward of fine grasses including sheep's fescue <i>Festuca ovina</i> , suggesting dry, acid soils.
Potter Street Hill North Pasture SINC	c. 0.48km north-east	A small unimproved species-rich meadow including betony <i>Stachys officinalis</i> and pepper-saxifrage <i>Silene acaulis</i> and perhaps the strongest population of devil's-bit scabious <i>Succisa pratensis</i> in London. Owned by St. John's School.
Potter Street Hill SINC	c. 0.58km east	Owned by St. John's School where it is used as an educational resource. Habitats include a meadow with a good flora, hedgerows with emergent pedunculate oaks <i>Quercus robur</i> , dense scrub, a shady ditch and two ponds. Hedgerows expand in places to form spinney habitats and large oaks provide standing decaying timber of value to invertebrates. Flora include native bluebells <i>Hyacinthoides non-scripta</i> and wood dock <i>Rumex sanguineus</i> , with soft rush <i>Juncus effusus</i> in wetter areas.
Northwood Railway Cutting SINC	c. 0.72km west	Wide banks of both sides of the railway support areas of regenerating woodland interspersed with a few mature standards, scrub and rough grassland. No access and owned by London Underground.
Oxhey Woods LWS	c. 0.83km north-east	Designated on account of its Ancient Woodland on an acidic clay and gravel plateau. Species of note within the ancient woodland include wild service tree and abundant native bluebells. Other habitats include an area of heath, a seasonal pond, wet grassland, ditches and an ancient hedge bank. Grass snake <i>Natrix natrix</i> and bats have been recorded.
Haste Hill Golf Course, Northwood Golf Course and	c. 0.90km south-west	Two golf courses, close to Ruislip Woods NNR, containing numerous small areas of valuable wildlife habitat including small woods and areas of species-rich grassland. Small areas of heather <i>Calluna vulgaris</i> are also present at Northwood Gold Course. Several small streams cross the golf courses, containing fool's water-cress <i>Apium nodiflorum</i> , water mint <i>Mentha aquatica</i> and male fern <i>Dryopteris filix-mas</i> , and enter the NNR to the west so it is of particular importance they remain free of pollution. A small woodland triangle to the south west of the site has an

Northwood Park SINC		interesting wetland flora around a flush, including rushes and, unusually, galingale <i>Cyperus longus</i> . There is a range of good standing dead wood, valuable for invertebrates and birds such as woodpeckers. The area is also important for reptiles.
Pinnerwood Park and Ponds SINC	c. 0.96km east	Large private golf course containing a good variety of habitats including a 2ha Ancient Woodland, Pinner Wood, and some rich acid grassland. Woodland ground flora includes broad buckler-fern <i>Dryopteris dilatata</i> , violets <i>Viola</i> spp. and pendulous sedge <i>Carex pendula</i> . Violet helleborine <i>Epipactis purpurea</i> , an orchid very rare in London, has been recorded in the past, but not for many years. The locally scarce devil's-bit scabious occurs within grasslands and there are heather remnants in one of the roughs. There are a number of ponds and great crested newts <i>Triturus cristatus</i> and grass snake have been recorded in recent years. Yellow loosestrife <i>Lysimachia vulgaris</i> and false fox-sedge <i>Carex otrubae</i> occur in damp areas around the ponds.
Sandy Lodge Golf Course LWS	c. 1.80km north-west	Supports a mosaic of habitats including semi-improved acid grassland, unimproved acid grassland/heath, a pond, pits, patches of scrub and broadleaf woodland. A good diversity of species has been recorded including small scabious <i>Scabiosa columbaria</i> , Devil's-bit scabious and heath bedstraw. Ancient Woodland Indicator species occur within the woodland including such as native bluebell and dog's mercury <i>Mercurialis perennis</i> .
Prestwick Road Meadows, South LWS	c. 1.90km north-east	Species-rich meadow including including crested dog's-tail <i>Cynosurus cristatus</i> , sweet vernal-grass <i>Anthoxanthum odoratum</i> , field wood-rush <i>Luzula campestris</i> , sneezewort <i>Achillea ptarmica</i> and pepper-saxifrage. Wetter patches contain species such as creeping Jenny <i>Lysimachia nummularia</i> and lady's smock <i>Cardamine pratensis</i> , as well as less common sedge species oval sedge. These habitats, in addition to seasonal ponds, scrub and ancient hedgerows, support a variety of insects, birds, reptiles and amphibians.

Ancient Woodland

- 4.10 There is no ancient woodland covering any part of the Site or immediately adjacent land. The only areas of Ancient Woodland within 1km of the Site are at Oxhey Wood (c. 0.87km north-east of the Site) and Abbots Wood (c. 0.89km north-east of the Site). No trees on or adjacent to Site are listed on the Ancient Tree Inventory; the closest recorded within the Inventory are two veteran oaks, c. 1km west of the Site along Green Lane.

Habitats and Flora

- 4.11 Habitats recorded on-site were classified in line with current Phase 1 Habitat survey guidance (JNCC, 1990), as illustrated in Appendix A. Detailed species lists for each habitat are provided in Appendix D.

Notable Flora Records

- 4.12 Together the HERC and GiGL provided 89 records of 27 notable plant species from within the search area, dating from the year 2000 onwards. Those of potential relevance to the Site include yellow loosestrife *Lysimachia vulgaris*, which was found present within the introduced shrub habitat at the Site within raised beds / border planting.
- 4.13 GiGL also provided records of London Invasive Species Initiative (LISI) plant species from within the search area. The following may be of relevance to the Site, as varieties were found present within the introduced shrub habitats and some of the hedgerows at the Site; snowberry *Symphoricarpos albus*, montbretia *Crocsmia × crocosmiiflora* and cherry laurel *Prunus laurocerasus*.
- 4.14 Snowberry and montbretia are LISI 'Category 2' species, "Species of high impact or concern present at specific sites that require attention (control, management, eradication etc). Such species are priority species for action in London and LISI encourages this wherever possible". Cherry laurel is an LISI 'Category 3' species, "Species of high impact or concern which are widespread in London and require concerted, coordinated and extensive action to control/eradicate. These species are species currently causing large scale impacts across London and LISI supports area or catchment wide partnership working to ensure this".
- 4.15 Snowberry, Montbretia and cherry laurel were all recorded on-site within areas of introduced shrub.

Buildings

- 4.16 The Site comprises a detached residential dwelling (Building 1) and a separate, detached garage/outbuilding (Building 2). The dwelling is two storeys of brick construction with clay tiled hipped roofs. There are

hanging tiles on all elevations, two dormer windows and a chimney. The garage is split into two sections, with the original structure situated at the western end and a more modern extension at the eastern end. The western section of the garage has a hipped tiled roof with a flat roof covered in bitumen felt at the eastern end.

Amenity Grassland

- 4.17 The gardens surrounding the buildings include areas of short-mown amenity grassland. Species include perennial rye-grass *Lolium perenne*, white clover *Trifolium repens*, dandelion *Taraxacum* sp., common daisy *Bellis perennis*, selfheal *Prunella vulgaris*, red clover *Trifolium pratense* and black medick *Medicago lupulina*.

Introduced Shrub

- 4.18 There are various sections of introduced shrubs around the gardens of the Site, including raised beds and border planting. Species include Rose species *Rosa* sp., *Wisteria* sp., *Fuchsia* sp., dogwood *Cornus sanguinea*, yellow loosestrife *Lysimachia vulgaris*, hawthorn *Crataegus monogyna*, oak *Quercus robur*, holly *Ilex aquifolium*, cherry *Prunus avium*, snowberry *Symphoricarpos* sp., red valerian *Centranthus ruber*, apple *Malus* sp., montbretia *Crocsmia* × *crocsmiiflora* and yellow flag iris *Iris pseudacorus* amongst other ornamental shrub varieties.
- 4.19 This habitat is of limited ecological value and as such is not discussed further in this report.

Hedgerows

- 4.20 A total of five species-poor hedgerows are present across the Site, largely along the boundaries and are all relatively well-managed. Hedgerow 1 is a box *Buxus* sp. hedge and is situated north of Building 2. Hedgerow 2 comprises holly, garden privet *Ligustrum ovalifolium*, ivy *Hedera heder*a and box *Buxus* sp. and runs along the northern boundary and the northern extent of the western boundary.
- 4.21 Hedgerows 3, along the western boundary and Hedgerow 5, along the eastern end of the southern boundary both comprise dogwood, ivy, and garden privet. Hedgerow 4, which runs along the southern boundary and extends north, parallel with Hedgerow 3, comprises garden privet and cherry laurel *Prunus laurocerasus*.

Bare Ground

- 4.22 Areas of bare ground are present around the Site, with a gravel driveway extending towards the buildings from the entrance on Gatehill Road. Gravel paths continue from the driveway around the buildings and the garden. A paved patio area is also present to the south of Building 1.

Trees

- 4.23 A line of semi-mature red cedar *Thuja plicata* trees is present along the eastern boundary of the Site. Individual trees are also present across the Site including a mature oak in the western corner of the Site in addition to yew *Taxus baccata*, hawthorn, apple and Norway spruce *Picea abies* amongst other non-native species.

Colonising Ground

- 4.24 A small area of colonising ground, developing towards tall ruderal vegetation, occurs to the north of Building 2. Species recorded here include willowherb *Epilobium* sp., dandelion *Taraxacum* sp. and oxeye daisy *Leucanthemum vulgare* among some non-native introduced species.
- 4.25 This habitat is of limited ecological value and as such is not discussed further in this report.

Fauna

Bats

- 4.26 Together HERC and GiGL provided 78 records of at least eight bat species from within the search area, dating from the year 2000 onwards. These include the following species: common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, noctule *Nyctalus noctula*, Serotine *Eptesicus serotinus*, Leisler's bat *Nyctalus leisleri*, brown long-eared bat *Plecotus auritus*, Natterer's bat *Myotis nattereri*, Daubenton's bat *Myotis daubentonii* and unidentified *Pipistrellus*, *Myotis* and *Nyctalus/Eptesicus* 'big bat' species.
- 4.27 Only a single record of two common pipistrelle bats was returned from the GiGL data search, recorded c. 1km south-east of the Site in 2014. HERC bat records were provided to within a 1km grid square reference at their highest resolution and so exact locations are not possible to discern. However, the closest bat record appears to be of a soprano pipistrelle recorded in flight in 2012, c. 0.6km north-west of the Site. The only roost record specified by HERC appears to originate from the same location and is of a soprano pipistrelle maternity roost of at least 234 bats, recorded in 2005; presumably located within a residential dwelling in the area. Otherwise, clusters of bat records returned appear to be associated with the aforementioned Sandy Lodge Golf Course LWS, as well as the Moor Park golf club (west of Astons Road, c. 2km north-west of the Site) and Ruislip Woods SSSI/NNR.
- 4.28 The habitats present within the Site, including the boundary trees and hedgerows and areas of grassland and introduced shrubs provide suitable foraging and commuting habitat for bats.

Preliminary Roost Assessment - Structures

- 4.29 All on-site structures were assessed for their potential to support roosting bats. Both of these buildings (labelled B1 and B2 on the Habitats Plan in Appendix A), are considered to have 'High' bat roost potential, with numerous suitable roosting features and access points present, including raised and missing roof tiles, gaps beneath hanging tiles and gaps in mortar along the ridges. The full results of the building inspection are provided in Table E.3 of Appendix E.
- 4.30 In line with the BCT survey guidelines for buildings assessed as having 'High' bat roost potential, a series of three dusk emergence surveys were undertaken. No confirmed emergences were recorded during any of the surveys and it has been concluded that no bat roost is present.
- 4.31 However, during the surveys three species of bats were recorded using habitats within the Site. These included common pipistrelle, soprano pipistrelle and a *Nyctalus* sp. Passes recorded were mostly associated with bat foraging around the gardens of the Site and commuting across the Site from Gatehill Road towards the east and south.
- 4.32 Full results are provided in the Bat Survey Report in Appendix E.

Badger

- 4.33 HERC have provided six records of badger *Meles meles* from within the search area, dating from the year 2000 onwards. Again, records are of low resolution (4-figure grid squares); however, records of setts dated 2002 and 2014 were returned, which are presumed likely associated Sandy Lodge Golf Course LWS and Batchworth Heath LNR, respectively. GiGL provided only a single (2015) badger record from within the search area; however, no locational information related to this record was included, as badger records are treated as confidential by GiGL and their data owners/originators.
- 4.34 The habitats within the Site provide limited suitable habitat for sett building and foraging and due to the residential setting in which the Site lies it is considered unlikely that badger would utilise the Site.

Dormouse

- 4.35 No records of dormouse *Muscardinus avellanarius* were identified within the search area.
- 4.36 The hedgerows on-site are of low species diversity and offer limited foraging resources for dormouse. Additionally, the Site has no connectivity to suitable off-site habitat and it is therefore considered unlikely that dormice would be present within the Site.

Riparian Mammals

- 4.37 No recent records of water vole *Arvicola amphibius* or otter *Lutra lutra* were identified within the search area. Only three historic records from 1969 and 1987 of water vole were returned by HERC.
- 4.38 No suitable riparian habitat is present on-site and there is no connectivity between the Site and any off-site habitat. As such, it is considered unlikely that water vole or otter would be present.

Other Mammals

Hedgehog

- 4.39 A single 2018 record of five hedgehogs *Erinaceus europaeus* c. 0.8km north of the Site was returned by GiGL. No recent records of hedgehogs within the search area were returned by HERC.
- 4.40 The hedgerow bases, grassland and areas of introduced shrubs on-site provide some suitable foraging and sheltering opportunities for hedgehogs and as such it is considered likely that this species could utilise the Site.
- 4.41 No recent records of any other notable mammal species were returned from either record provider from within the search.

Birds

- 4.42 Together HERC and GiGL provided 199 records of 43 bird species from within the search area, dating from the year 2000 onwards. Those of potential relevance to the Site include blue tit *Cyanistes caeruleus*, great tit *Parus major*, coal tit *Periparus ater*, robin *Erithacus rubecula*, wren *Troglodytes troglodytes*, goldfinch *Carduelis carduelis*, greenfinch *Chloris chloris*, nuthatch *Sitta europaea*, dunnoek *Prunella modularis* (BoCC Amber), waxwing *Bombycilla garrulus*, hawfinch *Coccothraustes coccothraustes* (S41), bullfinch *Pyrrhula pyrrhula*, (London BAP), linnet *Linaria cannabina* (IUCN Red List), stock dove *Columba oenas*, song thrush *Turdus philomelos* (LBAP), fieldfare *Turdus pilaris* (Schedule 1, BoCC Red), mistle thrush *Turdus viscivorus* (BoCC Red), great spotted woodpecker *Dendrocopos major*, green woodpecker *Picus viridis*. Records of the non-native ring-necked parakeet *Psittacula kramera* (Schedule 9 invasive species) were also returned.
- 4.43 The boundary hedgerows and trees provide suitable nesting opportunities for a range of common garden birds. The buildings have the potential to provide nesting opportunities for house sparrows, swifts and starlings, however no nests or nesting material was identified during the Phase 1 Habitat survey.

Reptiles

- 4.44 Only a single post-2000 reptile record was returned from within the search area (by HERC); of nine slow-worm *Anguils fragilis*, recorded within a 1km grid square north-east of the Site in 2001. Two grass snake *Natrix natrix* (syn. *N. Helvetica*) were recorded within Prestwick Road Meadows, South LWS in 1991.
- 4.45 The grassland on-site is short-mown and as such provides little suitability for reptiles. Additionally, the Site is surrounded by residential properties and gardens containing sub-optimal habitats with no connectivity to suitable off-site habitats. As such, it is considered unlikely that reptiles would be present on-site.

Amphibians

- 4.46 No post-2000 records of amphibian species were identified within the search area. The most recent amphibian record is of common frog *Rana temporaria* (a species of local conservation concern), c. 0.9km north of the Site in 1999.
- 4.47 The habitats on-site provide some limited potential for amphibians such as toads, however no waterbodies are present on-site. A more detailed assessment in relation to great crested newts is provided below.

Great Crested Newt

- 4.48 Despite spending much of their annual lifecycle within the terrestrial environment, great crested newts are dependent upon the presence of suitable aquatic breeding habitat in order for a population to persist. There are no ponds within the Site and no ponds appear to be present within a dispersible range of the Site, based on OS mapping. The Site itself provides limited opportunities for amphibians and is situated within a residential area with no connectivity to suitable off-site habitat.

Invertebrates

- 4.49 Together HERC and GiGL provided 37 records of 30 invertebrate species from within the search area, dating from the year 2000 onwards. Those of potential relevance to the Site include the 'long-horn' beetle *Rhagiu, mordax*, the adults of which favour hawthorn and the larvae are found on rotten wood of most broadleaved trees just under the bark; on-site hawthorn and the mature oak may therefore provide suitable habitat for the beetle, which has been recorded in Oxhey Woods LNR/LWS in 2018.
- 4.50 The Site is not located within Important Invertebrate Area (IIA) and the habitats present on-site provide opportunities for a relatively typical assemblage of invertebrates associated with amenity grassland and species-poor hedgerows.

5.0 DISCUSSION AND RECOMMENDATIONS

Habitats and Flora

Hedgerows and Trees

- 5.1 The majority of hedgerows and boundary trees are to be retained as part of the proposals. However, it is understood that a section of species-poor box hedgerow (H1), which offers limited ecological value, will require removal to facilitate the proposals.
- 5.2 Whilst all of the hedgerows on-site are largely comprised of non-native species, some of the individual trees on-site are native species. Hedgerows and their component trees have intrinsic ecological value and therefore all retained hedgerows and trees, should be should be afforded protection during construction in line with British Standard 5837: 2012.
- 5.3 It is understood that some new hedgerow planting will be provided as boundaries for the conversion of the garden into separate plots. This will serve to maintain connectivity of hedgerows through the Site.

Fauna

Bats

- 5.4 Bats and their habitats (roosts) are afforded protection under the Conservation of Habitats and Species Regulations 2017 (known as the 'Habitats Regulations') and the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to capture, injure, kill or disturb bats and also to damage or destroy a breeding site or resting place (roost) used by bats. Many British bat species are species of principle importance for conservation under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
- 5.5 During the preliminary roost assessment, both on-site Buildings were identified as having 'High' bat roosting potential, with a number of suitable features identified. A series of three dusk emergence surveys were undertaken between July and August 2020 and have confirmed the likely absence of a bat roost in either building. As such, there are no ecological constraints in relation to bats to the proposed demolition of Building 2 or the conversion of and extensions proposed to Building 1.
- 5.6 Boundary habitats within the Site, notably the hedgerows and trees, in addition to the areas of amenity grassland, provide suitable foraging and commuting habitat for bats. A low amount of bat activity by common pipistrelle, soprano pipistrelle and brown long-eared bat was recorded during the dusk emergence surveys, with the majority of bat activity recorded associated with bats foraging around the gardens.

- 5.7 It is understood that all boundary hedgerows be retained in line with Policy EM7 of the Local Plan Part 1 (Adopted November 2012) and Policy DME1 7 of the Local Plan: Part 2 (Adopted January 2020) with only a small section of Hedgerow 1 requiring removal to facilitate the construction of the new cycle and refuse store. There will be some minor loss of foraging habitats; however the provision of new hedgerows and amenity habitats within the new garden plots will provide additional resources for bats.
- 5.8 It is recommended that any new lighting at the Site should be designed to avoid illuminating these boundary habitats to minimise disturbance to foraging and commuting bats.

Birds

- 5.9 Wild birds, their active nests, and their eggs are protected under the Wildlife and Countryside Act 1981 (as amended).
- 5.10 It is understood that some minor hedgerow vegetation removal is required to facilitate development and therefore to avoid committing an offence under the Wildlife and Countryside Act 1981 (as amended), any vegetation clearance must take place outside of the bird nesting period (i.e. outside of March to August inclusive), or failing that, following confirmation by a suitably qualified ecologist that nesting birds are absent from the habitats to be cleared.

Summary of Recommendations

- 5.11 Based on the ecological constraints identified above and the proposed avoidance and mitigation measures detailed to address potential adverse effects of development, no further surveys / investigative work is considered necessary. However, the following measures are recommended:

- Protection of retained trees / hedgerows in line with BS 5837:2012
- Precautionary measures to avoid direct impacts to nesting birds during vegetation removal (timing of works)
- Sensitive lighting strategy to avoid illumination of boundary habitats

Opportunities for Ecological Enhancement

- 5.12 To promote adherence to the NPPF and the London Borough of Hillingdon Local Plan Part 1 (Adopted November 2012) and Part 2 (Adopted January 2020) the following opportunities for ecological enhancement have been identified:
- Provision of new bat roosting opportunities on the new cycle and refuse store building and retained mature trees (At least 2 no. bat boxes). These will be a purpose-built, durable and long-lasting variety such as available from Schwegler or Habibat.

- Provision of bird nesting opportunities within the new cycle and refuse store building and retained mature trees (At least 2 no. bird boxes. NHBS integrated starling box, terraced sparrow box or equivalent on buildings and/or 1MR Avianex nest box, or equivalent on retained trees)
- Incorporation of native plants and those of wildlife importance in to landscaping scheme to provide foraging opportunities for birds, invertebrates and bats
- Removal of non-native invasive plant species to avoid their spread within the local environment.

6.0 CONCLUSIONS

6.1 Confirmed ecological constraints to development at the Site have been identified as the presence of:

- Trees and Hedgerows
- Foraging / Commuting Bats
- Nesting Birds

6.2 Recommendations for ecological enhancement measures that could be delivered as part of development at the Site have been provided here-in, which will aid accordance with Policy EM7 of the Local Plan Part 1 (Adopted November 2012) and Policy DMEI 7 of the Local Plan: Part 2 (Adopted January 2020). This includes the protection of retained trees and hedgerows in line with British Standard 5837: 2012, a sensitive lighting strategy to avoid illumination of boundary habitats and appropriate timing of vegetation removal to avoid the bird nesting season. There is opportunity for ecological enhancements to be made, such as the incorporation of bat and/or bird nesting boxes within the proposed cycle and refuse store building and on retained mature trees.

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Appendix A

Habitats Plan & Photosheet

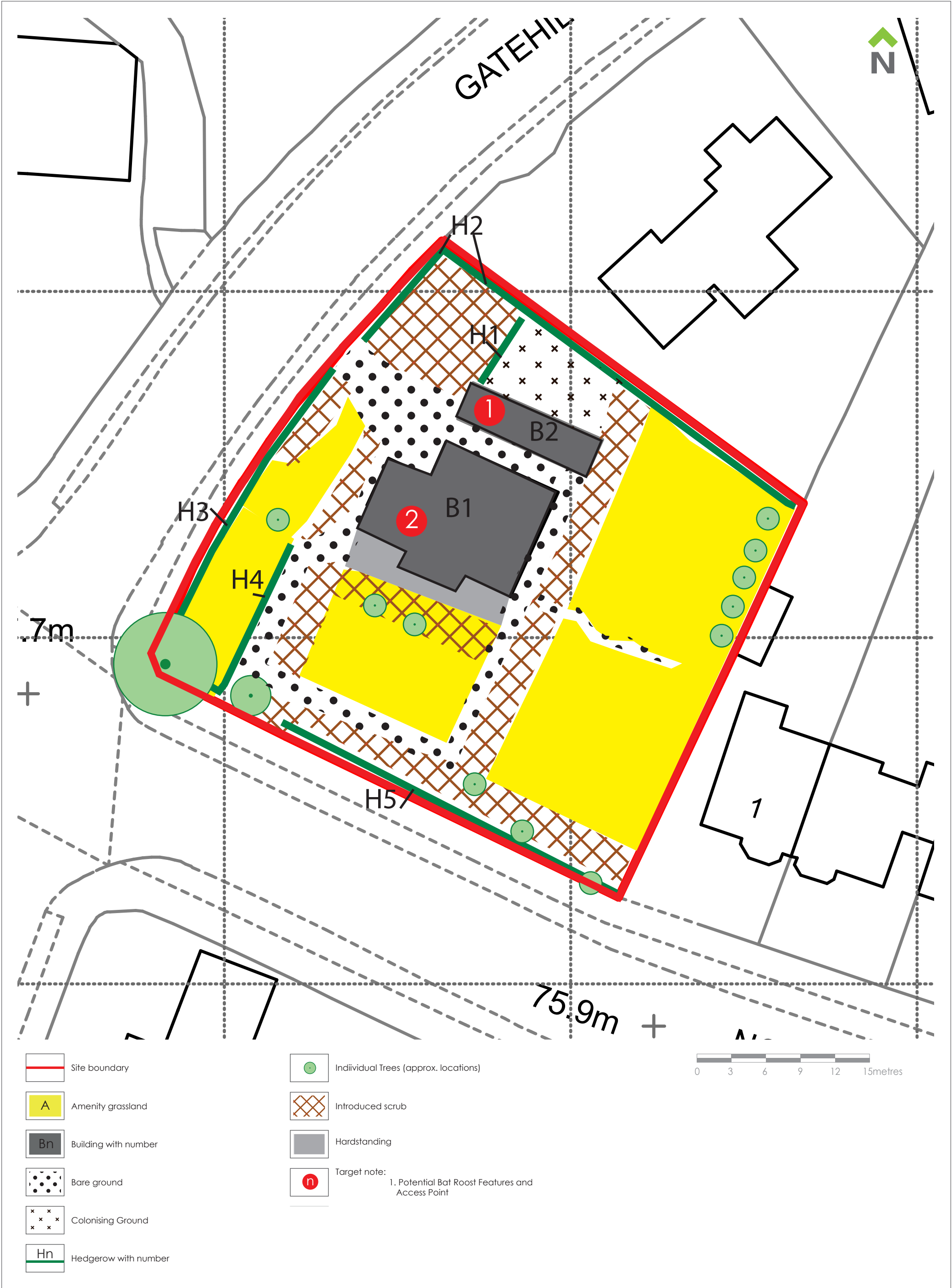




Photo 1. Suitable access points for bats on Building 2.



Photo 2. Gaps beneath hanging tiles on Building 1.



Photo 3. Suitable roosting features and access points for bats on Building 1.



Photo 4. Gravel driveway extending from Gatehill Road.



Photo 5. Short-mown amenity grassland in east of Site.



Photo 6. Introduced shrubs and hedgerow along southern boundary of the Site

Appendix B

Legislation and Planning Policy

- 1.1. The **Conservation of Habitats and Species Regulations 2017** (as amended) transposes Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, and aspects of Council Directive 79/409/EEC on the Conservation of Wild Birds, into UK domestic law. The Regulations make prescriptions for the designation and protection of Sites of Community Importance ('European sites', e.g. Special Areas of Conservation and Special Protection Areas) and European Protected Species (EPS). Through the provisions of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, the Regulations retain all protections afforded to sites, habitats and species following the UK's departure from the European Union on 31st January 2020.
- 1.2. The **Wildlife and Countryside Act 1981** (as amended, principally by the Countryside and Rights of Way Act 2000) forms the basis for protection of statutory designated sites of national importance (e.g. Sites of Special Scientific Interest; SSSIs) and native species that are rare and vulnerable in a national context. Additionally, badgers are protected under the **Protection of Badgers Act 1992**.
- 1.3. Section 40(1) of the **Natural Environment and Rural Communities (NERC) Act 2006** states that each public authority, "must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity." This legislation makes it clear that planning authorities should consider impacts to biodiversity when determining planning applications, with particular regard to the Section 41 (S41) lists of 56 habitats and 943 species of principal importance. The UK Biodiversity Action Plan (BAP) has been superseded by the Biodiversity 2020 Strategy, which continues to prioritise the S41 lists, however Local BAPs continue to influence biodiversity management and conservation effort, including through the spatial planning system, at the local scale.
- 1.4. The **National Planning Policy Framework (2019)** (NPPF) sets out government planning policies for England and how they should be applied. With regards to ecology and biodiversity, Chapter 15: Conserving and Enhancing the Natural Environment, paragraph 170, states that the planning system and planning policies should minimise impacts on and provide net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
- 1.5. Paragraph 175 sets out the principles that local planning authorities should apply when determining planning applications:
 - If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts).

- Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest.
 - Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.
 - Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.
- 1.6. The **Government Circular 06/2005**, which is referred to within the NPPF, defines statutory nature conservation sites and protected species as a material consideration in the planning process.
- 1.7. Local planning policies of relevance to ecology, biodiversity and/or nature conservation have been set out in Table B.1 below.

Table B.1. Summary of regional and local planning policy relating to ecology

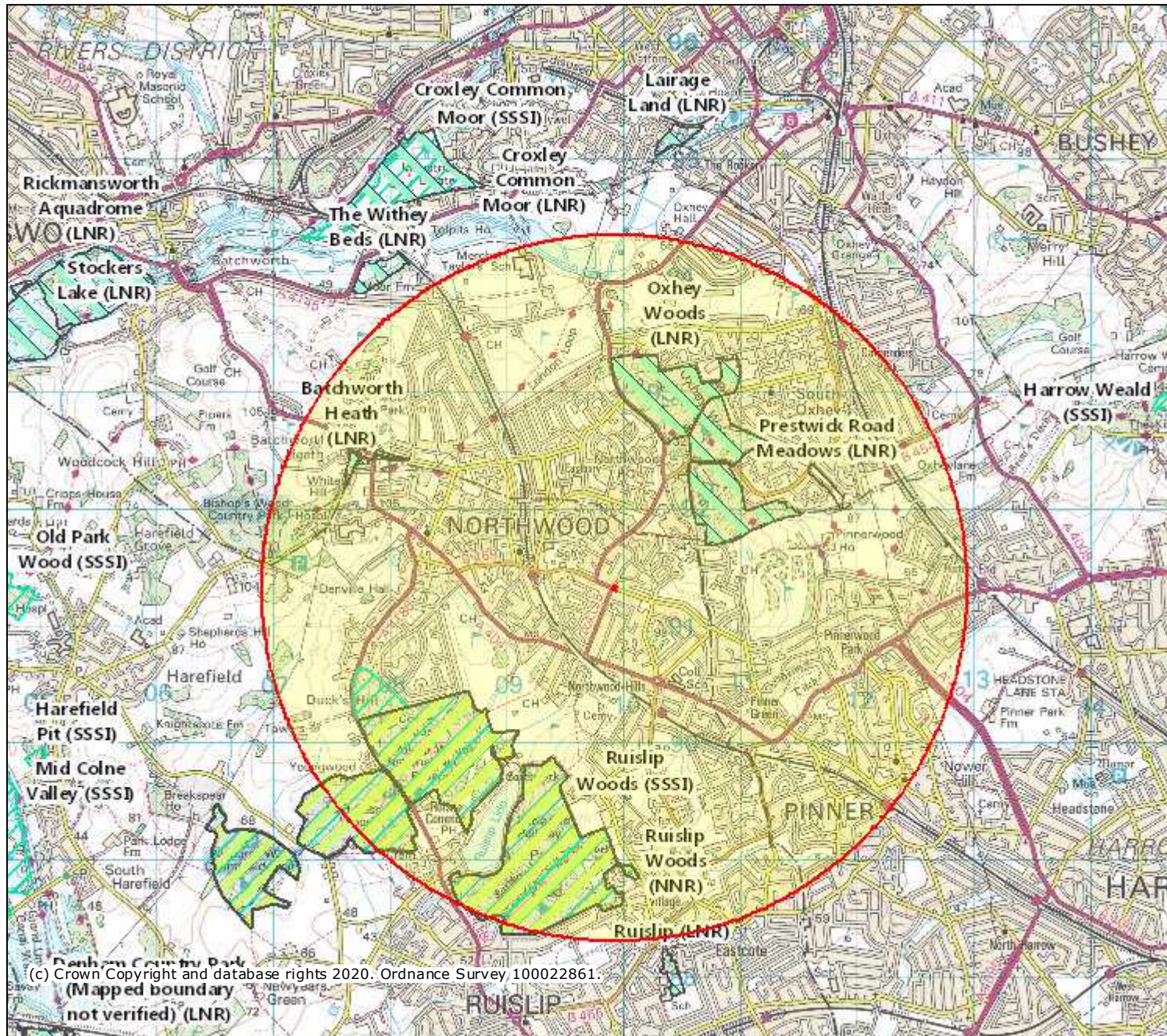
Policy	Summary
Local Plan: Part 1 – Strategic Policies (Adopted November 2012)	
Policy EM7: Biodiversity and Geological Conservation	The Council will review all the Borough grade Sites of Importance for Nature Conservation (SINCs). Deletions, amendments and new designations will be made where appropriate within the Hillingdon Local Plan: Part 2- Site Specific Allocations Local Development Document. These designations will be based on previous recommendations made in discussions with the Greater London Authority. Hillingdon's biodiversity and geological conservation will be preserved and enhanced with particular attention given to: 1. The conservation and enhancement of the natural state of: • Harefield Gravel Pits • Colne Valley Regional Park • Fray's Farm Meadows • Harefield Pit 2. The protection and enhancement of all Sites of Importance for Nature Conservation. Sites with Metropolitan and Borough Grade 1 importance will be protected from any adverse impacts and loss. Borough Grade 2 and Sites of Local Importance will be protected from loss with harmful impacts mitigated through appropriate compensation.

Policy	Summary
	3. The protection and enhancement of populations of protected species as well as priority species and habitats identified within the UK, London and the Hillingdon Biodiversity Action Plans. 4. Appropriate contributions from developers to help enhance Sites of Importance for Nature Conservation in close proximity to development and to deliver/ assist in the delivery of actions within the Biodiversity Action Plan. 5. The provision of biodiversity improvements from all development, where feasible. 6. The provision of green roofs and living walls which contribute to biodiversity and help tackle climate change. 7. The use of sustainable drainage systems that promote ecological connectivity and natural habitats.
Local Plan: Part 2 - Development Management Policies (Adopted January 2020)	
Policy DMEI 7: Biodiversity Protection and Enhancement	A) The design and layout of new development should retain and enhance any existing features of biodiversity or geological value within the site. Where loss of a significant existing feature of biodiversity is unavoidable, replacement features of equivalent biodiversity value should be provided on-site. Where development is constrained and cannot provide high quality biodiversity enhancements on-site, then appropriate contributions will be sought to deliver off-site improvements through a legal agreement. B) If development is proposed on or near to a site considered to have features of ecological or geological value, applicants must submit appropriate surveys and assessments to demonstrate that the proposed development will not have unacceptable effects. The development must provide a positive contribution to the protection and enhancement of the site or feature of ecological value. C) All development alongside, or that benefits from a frontage on to a main river or the Grand Union Canal will be expected to contribute to additional biodiversity improvements. D) Proposals that result in significant harm to biodiversity which cannot be avoided, mitigated,

Appendix C

Desk Study Information

MAGiC National and Local Statutory Sites within 3km



Legend

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

Projection = OSGB36

xmin = 500700

ymin = 187500

xmax = 518800

ymax = 196300

Map produced by MAGiC on 5 August, 2020.

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GiGL

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

eCountability

An Ecological Data Search for 2 Gatehill Road, Northwood

On behalf of
CSA Environmental

Report reference 14029



Prepared on 16 Jul 2020
by Dave Ritchie, eCountability Ltd.
enquiries@eCountability.co.uk

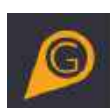
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Annex A - Maps

Statutory Sites Map
SINCs Map
RIGS and LIGS Map
Survey Parcels Map
Open Spaces Map
Green Belt and Metropolitan Open Land Map

Annex B – Supporting Information



1.0 Introduction

An ecological data search for 2 Gatehill Road, Northwood and surrounding land to a 1000m radius on behalf of CSA Environmental.

The following report was compiled by eCountability Ltd on behalf of CSA Environmental, to provide ecological information for the above site for a Planning application. This report may include information on statutory sites, non-statutory sites, species records, habitat or open space information held by GiGL, as requested for the above search area. The boundaries of this search area are defined in the maps in Annex A and lie within the London Borough(s) of Hillingdon and Harrow.

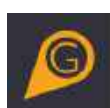
Important information about this report

The data provided within this report is for the **internal** use of CSA Environmental (which includes the client where applicable) to inform understanding of the site of interest for **1 year** in accordance with the terms and conditions agreed to on request of the search.

The data provided must not be distributed or published for an external or public audience, for example within the appendix of a report. Local Planning Authorities may request a copy of the data from GiGL either via their Service Level Agreement (most boroughs are GiGL partners) or as a data search.

The report is compiled using data held by GiGL at the time of the request. GiGL takes the accuracy of our data holdings very seriously and the Recorder Advisory Group is set up to help with this important task to ensure what we provide to you is the best data possible for your needs.

GiGL is constantly striving to improve the coverage and currency of its data holdings. We would be interested in hearing from you if you are able to submit species or habitat data arising from field surveys.



2.0 Statutory Sites and Local Nature Reserves

A desk-based search shows that there are no sites with European or National statutory designation within the search area and no LNRs.

Any citations currently available for the statutory sites within the search area can be seen on the following pages.

Statutory site designations:

- Special Area of Conservation (SAC)
- Special Protection Area (SPA)
- Ramsar sites
- Site of Special Scientific Interest (SSSI)
- National Nature Reserve (NNR)
- Local Nature Reserve (LNR)

For further explanations of the designations please see the “Supporting Information” annex. Please note that statutory citations are legal documents, the content of which is fixed and true at the time of designation. Species referred to in the citations may not be present on site today. Citations may have been written based on data not held by GiGL.

3.0 Non-Statutory Sites

A desk-based search shows that there are 6 SINCs and no RIGS/LIGS within the search area.



3.1 Sites of Importance for Nature Conservation

Introduction

Sites of Importance for Nature Conservation (SINCs) are recognised by the Greater London Authority and London borough councils as important wildlife sites.

There are three tiers of sites:

- Sites of Metropolitan Importance
- Sites of Borough Importance (borough I and borough II)
- Sites of Local Importance

The *London Plan* identifies the need to protect biodiversity and to provide opportunities for access to nature. The *Mayor's Biodiversity Strategy* sets out criteria and procedures for identifying such land for protection in Local Development Frameworks. A London Wildlife Sites Board (LWSB) has been established to provide support and guidance on the selections of SINCs.

The boundaries and site grades reflect the most recent consideration of each site, details of which are available from London borough councils. Note that boundaries and grades may change as new information becomes available. For further explanations of the designations please see the "Supporting Information" annex.

Areas of Deficiency (AoD) are defined as built-up areas more than one kilometre actual walking distance from an accessible Metropolitan or borough site. AoD areas can be seen on the SINC map.

GiGL manage a **dataset of spaces designated as public open space categorised according to a site hierarchy documented in The London Plan (Table 7.2)**.

Information on public open spaces sites are displayed within the open space table.

Citations

Citations currently available for SINCs within the search area can be seen on the following pages.

Please note that the content of SINC citations is reviewed periodically and that species referred to in the citations may not be present on site today. Citations may have been written based on data not held by GiGL.

Metropolitan

Site Reference: M134

Site Name: Potter Street Hill North Pasture

Summary: A small field of flower-rich grassland with perhaps the largest population of devil's-bit scabious in London.

Grid ref: TQ 103 916

Area (ha): 1.13

Borough(s): Hillingdon

Habitat(s): Unimproved neutral grassland

Access: Can be viewed from adjacent paths or roads only

Ownership: School

Site Description:

A small site containing herb-rich neutral grassland over London Clay. The characteristic plant community includes perhaps the strongest population of devil's-bit scabious (*Succisa pratensis*) in London. Other typical species of unimproved meadows include betony (*Stachys officinalis*) and pepper-saxifrage (*Silaum Silaus*). Owned by a school, this site has considerable educational potential. A view into the site can be obtained from the enclosed footpath between Potter Street Hill and Watford Road which passes its northern edge.

Site first notified: 19/10/1993 **Boundary last changed:** 01/03/1994

Citation last edited: 12/10/2005 **Mayor Agreed:** 25/11/2002

Defunct: N

Last Updated: 20/02/2007

Borough Grade I

Site Reference:	HiBI09
Site Name:	Haste Hill Golf Course, Northwood Golf Course and Northwood Park
Summary:	Golf courses close to Ruislip Woods, with woodland and grassland areas.
Grid ref:	TQ 088 905
Area (ha):	12.5
Borough(s):	Hillingdon
Habitat(s):	Acid grassland, Amenity grassland, Bare ground, Coniferous woodland, Hedge, Roughland, Running water, Scattered trees, Scrub, Secondary woodland, Semi-improved neutral grassland, Wet grassland, Wet woodland/carr
Access:	Access on public footpaths only
Ownership:	London Borough of Hillingdon and Private

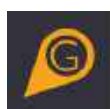
Site Description:

These two golf courses, close to Ruislip Woods National Nature Reserve, contain numerous small areas of valuable wildlife habitat. As with many pay-and-play golf courses, the 'roughs' have been largely removed with the aim of speeding up the game. Nevertheless, small woods and areas of species-rich grassland occur at the edges and as 'islands' interspersed among the close-mown fairways. Small areas of acid grassland occur on both courses. Characteristic flora includes heath bedstraw (*Gallium saxatile*), sheep's sorrel (*Rumex acetosella*), mouse-ear hawkweed (*Pilosella officinarum*) and, on Northwood Golf Course, occasional heather (*Calluna vulgaris*).

The woodlands include silver birch (*Betula pendula*), downy birch (*Betula pubescens*), pedunculate and sessile oaks (*Quercus robur* and *Q. petraea*), Scots pine (*Pinus sylvestris*) and a range of exotic trees such as Pride-of-India (*Koeleria paniculata*). Bracken (*Pteridium aquilinum*) is locally common in these areas. Several small streams cross the golf courses. Their banks are home to fool's water-cress (*Apium nodiflorum*), water mint (*Mentha aquatica*), water chickweed (*Myosoton aquaticum*) and male fern (*Dryopteris filix-mas*). These streams enter the National Nature Reserve to the west and it is of particular importance that they remain free of pollution arising from herbicides or other chemical applications.

A small woodland triangle to the south west of the site has an interesting wetland flora around a flush. Unusually, galingale (*Cyperus longus*) grows amongst the brambles (*Rubus fruticosus* agg.), and soft rush (*Juncus effusus*), hard rush (*J. inflexus*) and fleabane (*Pulicaria dysenterica*) are locally abundant. The site supports a varied fauna. Hornets (*Vespa crabro*) occur at the site, and there is a range of good standing dead wood, which is particularly valuable for invertebrates and birds such as woodpeckers. The area is also important for reptiles.

Site first notified:	01/01/1988	Boundary last changed:	01/03/1994
Citation last edited:	29/12/2005	Mayor Agreed:	
Defunct:	N		
Last Updated:	20/04/2006		



Borough Grade I

Site Reference:	HwBI03
Site Name:	Pinnerwood Park and Ponds
Summary:	A large private golf course with an ancient wood, flower-rich acid grassland and a number of ponds.
Grid ref:	TQ 113 914
Area (ha):	56.51
Borough(s):	Harrow
Habitat(s):	Acid grassland, Ancient woodland, Heathland, Hedge, Pond/lake, Scrub, Secondary woodland, Semi-improved neutral grassland, Wet ditches, Wet grassland
Access:	Access on public footpaths only
Ownership:	Private

Site Description:

This large private golf course contains a good variety of habitats, including the two-hectare ancient Pinner Wood. Oak (*Quercus robur*) and ash (*Fraxinus excelsior*) dominate the canopy in the east, while further west hornbeam (*Carpinus betulus*) becomes the dominant tree. The shrub layer of holly (*Ilex aquilifolium*) and coppiced hazel (*Corylus avellana*) is rather sparse. The ground flora includes broad buckler-fern (*Dryopteris dilatata*), violets (*Viola* spp.), pendulous sedge (*Carex pendula*) and field rose (*Rosa arvensis*). Violet helleborine (*Epipactis purpurea*), an orchid very rare in London, has been recorded in the past, but not for many years.

Away from the woodland, the roughs contain some rich acid grassland. The locally scarce devil's-bit scabious (*Succisa pratensis*) occurs, and there are heather (*Calluna vulgaris*) remnants in one of the roughs. There are a number of ponds on the golf course, including older ponds and a more recent flood-alleviation scheme. Great crested newts and grass snakes have been recorded in recent years. Yellow loosestrife (*Lysimachia vulgaris*) and false fox-sedge (*Carex otrubae*) occur in damp areas around the ponds.

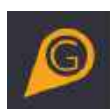
Public access is restricted to a bridleway running across the golf course.

Site first notified: 01/01/1989 **Boundary last changed:** 09/10/2003

Citation last edited: 27/02/2004 **Mayor Agreed:**

Defunct: N

Last Updated: 28/04/2006



Borough Grade II

Site Reference:	HiBII23
Site Name:	Hog's Back Open Space (formerly Borough Hill)
Summary:	A hillside site where narrow paths wind through dense woodland, grassland and scrub.
Grid ref:	TQ 102 909
Area (ha):	4.24
Borough(s):	Hillingdon
Habitat(s):	Acid grassland, Amenity grassland, Roughland, Scattered trees, Scrub, Secondary woodland, Tall herbs
Access:	Free public access (all/most of site)
Ownership:	London Borough of Hillingdon

Site Description:

Narrow paths wind through dense woodland, grassland and scrub on this steep hillside. The woodland is dominated by pedunculate oak (*Quercus robur*), bramble (*Rubus fruticosus* agg.) and common hawthorn (*Crataegus monogyna*). Honeysuckle (*Lonicera periclymenum*) is abundant. Common nettle (*Urtica dioica*) and dog rose (*Rosa canina*) grow in the woods, along with wood avens (*Geum urbanum*) and rosebay willowherb (*Chamerion angustifolium*). Nectar-feeding insects are abundant on brambles in sunny but sheltered situations. The grassland at the top of the hill is quite rich in wild flowers, within a sward of fine grasses including sheep's fescue (*Festuca ovina*), suggesting dry, acid soils. A variety of trees, shrubs and patches of tall herbs are scattered throughout the grassland. These include rosebay willowherb, rowan (*Sorbus aucuparia*) and naturalised orange ball tree (*Buddleja globosa*).

Site first notified:	01/01/1988	Boundary last changed:	01/01/1988
Citation last edited:	15/12/2005	Mayor Agreed:	
Defunct:	N		
Last Updated:	30/12/2005		

Borough Grade II

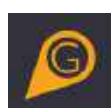
Site Reference:	HiBII24
Site Name:	Potter Street Hill
Summary:	A meadow, spinney and other habitats within the grounds of St John's School.
Grid ref:	TQ 106 913
Area (ha):	2.67
Borough(s):	Hillingdon
Habitat(s):	Bare ground, Hedge, Pond/lake, Scattered trees, Semi-improved neutral grassland, Wet ditches, Wet grassland
Access:	Can be viewed from adjacent paths or roads only
Ownership:	Private

Site Description:

This site consists of a variety of good wildlife habitats within the grounds of St John's School, and is used by the school as an educational resource. The southern part of the site is a meadow with a good flora, surrounded by hedgerows with emergent pedunculate oaks (*Quercus robur*) and a shady ditch. The grassland is predominantly cat's-tail (*Phleum pratense*), with false oat-grass (*Arrhenatherum elatius*) and tufted hair-grass (*Deschampsia cespitosa*). Wild flowers include purple loosestrife (*Lythrum salicaria*), fleabane (*Pulicaria dysenterica*), agrimony (*Agrimonia eupatoria*), abundant common knapweed (*Centaurea nigra*), greater bird's-foot-trefoil (*Lotus pedunculatus*) and figwort (*Scrophularia nodosa*).

A dense outgrown hedgerow along the eastern edge of the school grounds, alongside the road, expands towards its north end to form a spinney, and also extends westwards around the school sports grounds. Large pedunculate oaks provide standing decaying timber of value to invertebrates. The dense scrub and extensive blankets of ivy (*Hedera helix*) provide ample cover for birds and their nests. Flora includes native bluebells (*Hyacinthoides non-scripta*), wood dock (*Rumex sanguineus*) and greater stitchwort (*Stellaria holostea*). Within the north area of the spinney are two ponds connected by a weir. The wetland flora includes numerous yellow iris (*Iris pseudacorus*) and red bistort (*Persicaria amplexicaulis*), as well as soft rushes (*Juncus effusus*) and clustered dock (*Rumex conglomeratus*). The ponds are inhabited by moorhens.

Site first notified:	01/01/1988	Boundary last changed:	01/01/1988
Citation last edited:	06/01/2006	Mayor Agreed:	
Defunct:	N		
Last Updated:	06/01/2006		



Borough Grade II

Site Reference: HiBII45
Site Name: Northwood Railway Cutting
Summary: Wide banks on both sides of railway lines at Northwood.
Grid ref: TQ 091 920
Area (ha): 3.18
Borough(s): Hillingdon
Habitat(s): Scattered trees, Scrub, Semi-improved neutral grassland
Access: Can be viewed from adjacent paths or roads only
Ownership: London Underground Ltd

Site Description:

This wooded railway cutting extends along the Metropolitan line northwards beyond the London boundary into Hertfordshire. Wide banks of both sides of the railway support areas of regenerating woodland, scrub and rough grassland. Dominant woodland trees include small pedunculate oaks (*Quercus robur*) and ash (*Fraxinus excelsior*), interspersed with a few mature standards. There is an understorey of common hawthorn (*Crataegus monogyna*), elder (*Sambucus nigra*) and blackthorn (*Prunus spinosa*) with occasional dogwood (*Cornus sanguinea*). The ground flora includes ground ivy (*Glechoma hederaceae*), herb robert (*Geranium robertianum*), lords-and-ladies (*Arum maculatum*), dog rose (*Rosa canina*) and Michaelmas daisy (*Aster* sp.). The site is not accessible to the public, but it may be viewed in part from the boundaries, and provides a pleasant rural view from passing trains.

Site first notified: 08/09/2005 **Boundary last changed:** 08/09/2005
Citation last edited: 03/01/2006 **Mayor Agreed:**
Defunct: N
Last Updated: 06/01/2006

3.2 Important Geological/Geomorphological Sites

Introduction

The designation in planning documents of regionally important geological sites (RIGS) and locally important geological sites (LIGS) is one way of recognising and protecting important geodiversity and landscape features for future generations to enjoy.

Geodiversity is defined as:

‘the variety of rocks, fossils, minerals, landforms, soils and natural processes, such as weathering, erosion and sedimentation, that underlie and determine the character of our natural landscape and environment’ (London Plan).

RIGS are currently the most important designated places for geology and geomorphology outside statutorily protected land such as SSSIs. They are equivalent to Sites of Metropolitan Importance for nature conservation. In London, RIG Sites have been selected by South London RIGS, North West London RIGS and GeoEssex (voluntary organisations) but have yet to be formally designated in Greater London.

The London boroughs may also designate certain areas as being of local interest for their geodiversity - LIGS. The boundaries and site grades reflect the most recent consideration of each site. Details may change as new information becomes available.

More information can be found in the London Plan Supplementary Planning Guidance *London’s Foundations* (March 2012) and the *London Geodiversity Action Plan*, both available from www.londongeopartnership.org.uk.

Citations

RIGS/LIGS are designated in four stages:

- **Potential RIGS/LIGS** are those recommended by the London Geodiversity Partnership and identified in *London’s foundations*
- **Recommended RIGS** are those recommended by the London Geodiversity Partnership, identified in *London’s foundations* and have been through a consultation process with the London boroughs and relevant landowners
- **Proposed RIGS/LIGS** are those included in draft Borough Development Plan Documents
- **Adopted RIGS/LIGS** are those identified in adopted Borough Development Plan Documents

Please note that the content of RIGS and LIGS citations is reviewed periodically by the London Geodiversity Partnership.

There are no RIGS or LIGS within the search area.



4.0 Species

Species from these categories can be seen on the following pages:

- Internationally or nationally protected species *
- National or London Biodiversity Action Plan (BAP) priority species
- Red Data List species
- Species of Conservation Concern in London
- London Invasive Species Initiative (LISI) species

Note that GiGL does not currently hold comprehensive species data for all areas. Even where data is held, a lack of records for a species in a defined geographical area does not necessarily mean that the species does not occur there – the area may simply not have been surveyed.

Distances and direction to each species record are calculated from the centre-point of a search area. Note that because the resolution of grid references varies between surveys the records with a low grid reference resolution are presented in the Vague Records table.

The species, listed by taxon name, were recorded from a broad range of surveys - from public and species specific surveys to formal surveys carried out during the GLA's rolling survey programme.

Records of bat sightings are presented in the report if found in the search area. Records of bat roosts, if present in the search area, will be found in the confidential species table.

If you would like further information regarding rare, notable and protected species please contact a relevant person listed in the Further Contacts section of this report.

* Protected species are those listed on EC Habitats Directive – Annexes II and IV, EC Birds Directive – Annex I, Conservation (Natural Habitats) Regulations 1994 – Schedules 2 & 5, NERC 2006 Section 41, Wildlife and Countryside Act 1981 (as amended) – Schedules 1, 5 & 8, Protection of Badgers Act 1992

4.1 Protected Species and Species of Conservation Concern

Records in this section come from a variety of planning and conservation designations and are presented here to provide a broad range of information about the search area. GiGL's Recorder Advisory Group have advised on the inclusion of each category and further information about the designations (legal and notable) can be found in the "Supporting Information" annex.

All records in this section were recorded to at least 100 m² accuracy (a six grid reference figure or higher). The total number of occurrences states the number of recorded instances for a species in the search area e.g. one recorded instance of fly orchid (*Ophrys insectifera*) could have a count of 10 individual plants. The maximum occurrence column records either that the species was present "P" or gives a numerical value of the highest count of species recorded in the search area where this is known.

Table 1 Red Data List designation abbreviations used in the species table. Further information on the designations can be found in the annex.

Designation short name	Designation full name	Designation short name	Designation full name
RL_DataDeficient	IUCN (2001) - Data Deficient	RL_LowerRisk	IUCN (2001) - Lower risk - near threatened
RL_CriticalEndangered	IUCN (2001) - Critically endangered	RL_Extinct	IUCN (2001) - Extinct
RL_Endangered	IUCN (2001) - Endangered	RL_ExtinctWild	IUCN (2001) - Extinct in the wild
RL_Vulnerable	IUCN (2001) - Vulnerable	RL_RegionExtinct	IUCN (2001) - Regionally Extinct

Taxon Name	Common Name	Designation	Total number of occurrences	No. of breeding occurrences	Maximum occurrence	Distance (m) of nearest record	Bearing of nearest record	Date of nearest record	Distance (m) of most recent record	Bearing of most recent record	Date of most recent record
Amphibians											
<i>Rana temporaria</i>	Common Frog	HSD5 Local Spp of Cons Conc	1	1	P	859	N	1999	859	N	1999
Birds											
<i>Apus apus</i>	Swift	Local Spp of Cons Conc	4	1	2	326	SW	01/01/10-31/12/10	332	SW	01/01/11-31/12/11
<i>Cuculus canorus</i>	Cuckoo	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc Bird-Red	1		1	679	W	05/06/2012	679	W	05/06/2012
<i>Egretta garzetta</i>	Little Egret	Birds Dir Anx 1 Local Spp of Cons Conc	1	1	P	679	W	21/12/2014	679	W	21/12/2014
<i>Hirundo rustica</i>	Swallow	Local Spp of Cons Conc	1		P	860	SW	30/04/1985	860	SW	30/04/1985
<i>Linaria cannabina</i>	Linnet	BAP Priority London Local Spp of Cons Conc Bird-Red	1		P	585	S	01/05/2017	585	S	01/05/2017
<i>Loxia curvirostra</i>	Common Crossbill	W&CA Sch1 Part 1 Local Spp of Cons Conc	1		1	679	W	24/08/2012	679	W	24/08/2012
<i>Milvus milvus</i>	Red Kite	Birds Dir Anx 1 W&CA Sch1 Part 1	2		2	679	W	28/03/2014	679	W	28/03/2014
<i>Motacilla cinerea</i>	Grey Wagtail	Local Spp of Cons Conc Bird-Red	2		2	428	NW	18/06/1996	967	SE	02/08/2004
<i>Muscicapa striata</i>	Spotted Flycatcher	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc Bird-Red	6	1	1	860	SW	1984	860	SW	1990

Taxon Name	Common Name	Designation	Total number of occurrences	No. of breeding occurrences	Maximum occurrence	Distance (m) of nearest record	Bearing of nearest record	Date of nearest record	Distance (m) of most recent record	Bearing of most recent record	Date of most recent record
<i>Passer domesticus</i>	House Sparrow	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc Bird-Red	24	17	14	90	S	2002	668	SW	22/07/2005
<i>Phoenicurus ochruros</i>	Black Redstart	W&CA Sch1 Part 1 BAP Priority London Bird-Red	1	1	P	679	W	03/11/2013	679	W	03/11/2013
<i>Phylloscopus trochilus</i>	Willow Warbler	Local Spp of Cons Conc	1		P	860	SW	1984	860	SW	1984
<i>Pyrrhula pyrrhula</i>	Bullfinch	BAP Priority London	4		P	585	S	01/02/2017	585	S	01/02/2017
<i>Regulus regulus</i>	Goldcrest	Local Spp of Cons Conc	4	3	1	428	NW	03/05/2001	679	W	09/06/2012
<i>Strix aluco</i>	Tawny Owl	Local Spp of Cons Conc	2		P	292	S	26/05/2019	292	S	26/05/2019
<i>Sturnus vulgaris</i>	Starling	BAP Priority London Local Spp of Cons Conc Bird-Red	1		P	860	SW	1996	860	SW	1996
<i>Turdus pilaris</i>	Fieldfare	W&CA Sch1 Part 1 Bird-Red	2		1	679	W	04/01/2014	679	W	04/01/2014
<i>Turdus viscivorus</i>	Mistle Thrush	Local Spp of Cons Conc Bird-Red	1		1	679	W	05/04/2012	679	W	05/04/2012
Mammals - Terrestrial (excl. bats)											
<i>Erinaceus europaeus</i>	West European Hedgehog	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	5	1	1	765	N	20/06/2018	765	N	20/06/2018
Mammals - Terrestrial (bats)											
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London	2		P	1006	SE	21/08/2014	1006	SE	21/08/2014
Higher Plants - Flowering Plants											
<i>Hyacinthoides non-scripta</i>	Bluebell	W&CA Sch8 Local Spp of Cons Conc	1		P	703	E	02/08/2004	703	E	02/08/2004
<i>Mespilus germanica</i>	Medlar	Nationally Scarce	2		P	956	W	01/01/2020	956	W	01/01/2020
<i>Narcissus pseudonarcissus</i>	Daffodil	Local Spp of Cons Conc	2		P	516	SE	1987	516	SE	1987
<i>Populus nigra subsp. betulifolia</i>	Black Poplar	BAP Priority London	1		P	984	S	01/01/2010	984	S	01/01/2010
<i>Ranunculus arvensis</i>	Corn Buttercup	NERC Act Section 41 UKBAP RedList_GB-CR	1		P	227	N	1952	227	N	1952
<i>Rosa stylosa</i>	Short-styled Field-rose	Local Spp of Cons Conc	2		P	754	E	2003	754	E	2003
<i>Tilia platyphyllos</i>	Large-leaved Lime	Nationally Scarce	1		P	396	NE	01/01/2020	396	NE	01/01/2020
Invertebrates - Beetles											

Taxon Name	Common Name	Designation	Total number of occurrences	No. of breeding occurrences	Maximum occurrence	Distance (m) of nearest record	Bearing of nearest record	Date of nearest record	Distance (m) of most recent record	Bearing of most recent record	Date of most recent record
<i>Lucanus cervus</i>	Stag Beetle	Hab&Spp Dir Anx 2 NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc Nationally Notable B	1		P	735	S	12/05/2015	735	S	12/05/2015
Invertebrates - Moths											
<i>Acronicta psi</i>	Grey Dagger	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Acronicta rumicis</i>	Knot Grass	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Agrochola litura</i>	Brown-spot Pinion	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Allophyes oxyacanthae</i>	Green-brindled Crescent	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Amphipyra tragopoginis</i>	Mouse Moth	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Aporophyla lutulenta</i>	Deep-brown Dart	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Arctia caja</i>	Garden Tiger	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Caradrina morpheus</i>	Mottled Rustic	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Diarsia rubi</i>	Small Square-spot	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Eulithis mellinata</i>	Spinach	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Hoplodrina blanda</i>	Rustic	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978

Taxon Name	Common Name	Designation	Total number of occurrences	No. of breeding occurrences	Maximum occurrence	Distance (m) of nearest record	Bearing of nearest record	Date of nearest record	Distance (m) of most recent record	Bearing of most recent record	Date of most recent record
<i>Hydraecia micacea</i>	Rosy Rustic	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Leucania comma</i>	Shoulder-striped Wainscot	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Lycia hirtaria</i>	Brindled Beauty	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Malacosoma neustria</i>	Lackey	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Melanchra persicariae</i>	Dot Moth	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Orthosia gracilis</i>	Powdered Quaker	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Pelurga comitata</i>	Dark Spinach	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Spilosoma lubricipeda</i>	White Ermine	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Spilosoma lutea</i>	Buff Ermine	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978
<i>Timandra comae</i>	Blood-vein	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1		1	860	SE	1978	860	SE	1978

Protected species and Species of Conservation Concern – Coarse Resolution Records

The species records in this table are represent records of 1km², 2km² or 10km² accuracy.

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
Birds						
<i>Apus apus</i>	Swift	Local Spp of Cons Conc	5	1km	01/01/09-31/12/09	03/06/2014
<i>Columba oenas</i>	Stock Dove	Local Spp of Cons Conc	2	1km	23/05/2012	20/05/2013
<i>Larus fuscus</i>	Lesser Black-backed Gull	Local Spp of Cons Conc	4	1km	22/04/2013	03/06/2014
<i>Passer domesticus</i>	House Sparrow	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc Bird-Red	6	1km	17/04/2012	03/06/2014
<i>Prunella modularis</i>	Dunnock	BAP Priority London Local Spp of Cons Conc	6	1km	17/04/2012	03/06/2014
<i>Regulus regulus</i>	Goldcrest	Local Spp of Cons Conc	5	1km	17/04/2012	03/06/2014
<i>Sturnus vulgaris</i>	Starling	BAP Priority London Local Spp of Cons Conc Bird-Red	6	1km	17/04/2012	03/06/2014
<i>Turdus philomelos</i>	Song Thrush	BAP Priority London Local Spp of Cons Conc Bird-Red	6	1km	17/04/2012	03/06/2014
<i>Turdus viscivorus</i>	Mistle Thrush	Local Spp of Cons Conc Bird-Red	3	1km	23/05/2012	28/04/2014
Higher Plants - Horsetails						
<i>Equisetum sylvaticum</i>	Wood Horsetail	Local Spp of Cons Conc	1	1km	1945	01/01/1945
Higher Plants - Ferns						
<i>Blechnum spicant</i>	Hard-fern	Local Spp of Cons Conc	2	2km, 10km	1965-1980	01/01/1980
Higher Plants - Flowering Plants						
<i>Aira caryophylla</i>	Silver Hair-grass	Local Spp of Cons Conc	1	2km	06/08/1978	06/08/1978
<i>Allium oleraceum</i>	Field Garlic	RedList_GB-VU	2	10km	24/06/1998	04/07/1998
<i>Alopecurus aequalis</i>	Orange Foxtail	Local Spp of Cons Conc	1	10km	01/01/1964	01/01/1964
<i>Anacamptis morio</i>	Green-winged Orchid	Local Spp of Cons Conc RedList_GB-Lr(NT)	10	1km, 10km	01/01/1852	1951-1955
<i>Anthemis cotula</i>	Stinking Chamomile	RedList_GB-VU	2	10km	1912	1982
<i>Apium inundatum</i>	Lesser Marshwort	Local Spp of Cons Conc	1	10km	01/01/1964	1964
<i>Arabis glabra</i>	Tower Mustard	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc RedList_GB-EN Nationally Scarce	1	1km	1991	1991
<i>Bromus hordeaceus subsp. thominei</i>	Sand Soft-brome	Nationally Scarce	1	10km	1965-1976	1965
<i>Bromus racemosus</i>	Smooth Brome	Local Spp of Cons Conc	1	1km	01/01/1964	1964
<i>Bromus secalinus</i>	Rye Brome	RedList_GB-VU Nationally Scarce	3	10km	1900	1910
<i>Bupleurum rotundifolium</i>	Thorow-wax	NERC Act Section 41 UKBAP RedList_GB-CR Nationally Rare	1	10km	1907	1907

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
<i>Buxus sempervirens</i>	Box	RedList_GB-DD Nationally Rare	1	10km	1981	1981
<i>Camelina sativa</i>	Gold-of-pleasure	Nationally Scarce	1	10km	1965	1965
<i>Cardamine bulbifera</i>	Coralroot	Local Spp of Cons Conc Nationally Scarce	10	10km	1901	24/05/2003
<i>Cardamine impatiens</i>	Narrow-leaved Bitter-cress	BAP Priority London Local Spp of Cons Conc RedList_GB-Lr(NT) Nationally Scarce	1	10km	1988	01/01/1988
<i>Carex appropinquata</i>	Fibrous Tussock-sedge	RedList_GB-Lr(NT) Nationally Scarce	1	10km	1936	01/01/1936
<i>Carex binervis</i>	Green-ribbed Sedge	Local Spp of Cons Conc	3	10km	1948	01/01/2009
<i>Carex caryophyllea</i>	Spring-sedge	Local Spp of Cons Conc	2	10km	1920	01/01/1949
<i>Carex pallescens</i>	Pale Sedge	Local Spp of Cons Conc	2	1km, 10km	1877	01/01/1877
<i>Carex panicea</i>	Carnation Sedge	Local Spp of Cons Conc	2	1km, 10km	1947	01/01/1964
<i>Carex paniculata</i> x <i>appropinquata</i> = <i>C. x rotae</i>	Sedge	RedList_GB-VU Nationally Rare	1	10km	1880	01/01/1880
<i>Carex riparia</i>	Greater Pond-sedge	Local Spp of Cons Conc	1	10km	1947	01/01/1947
<i>Carlina vulgaris</i>	Carline Thistle	Local Spp of Cons Conc	2	1km, 10km	1905	01/01/1964
<i>Catabrosa aquatica</i>	Whorl-grass	Local Spp of Cons Conc	2	1km, 10km	1930	01/01/1940
<i>Centaurea cyanus</i>	Cornflower	NERC Act Section 41 UKBAP	7	1km, 10km	1820	01/01/1964
<i>Cephalanthera damasonium</i>	White Helleborine	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc RedList_GB-VU	1	10km	1944	01/01/1944
<i>Chenopodium glaucum</i>	Oak-leaved Goosefoot	RedList_GB-VU Nationally Scarce	1	10km	1955	01/01/1955
<i>Chenopodium murale</i>	Nettle-leaved Goosefoot	Local Spp of Cons Conc RedList_GB-VU	2	10km	1951	1977
<i>Clinopodium acinos</i>	Basil Thyme	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc RedList_GB-VU	1	10km	1981	1981
<i>Clinopodium calamintha</i>	Lesser Calamint	BAP Priority London Local Spp of Cons Conc RedList_GB-VU Nationally Scarce	5	10km	1903	04/07/1998
<i>Coeloglossum viride</i>	Frog Orchid	NERC Act Section 41 UKBAP Local Spp of Cons Conc RedList_GB-VU	2	10km	1906	01/01/1913
<i>Convallaria majalis</i>	Lily-of-the-valley	Local Spp of Cons Conc	4	2km, 10km	1957	1978
<i>Cynoglossum officinale</i>	Hound's-tongue	RedList_GB-Lr(NT)	1	10km	1903	1903
<i>Cyperus longus</i>	Galingale	RedList_GB-Lr(NT) Nationally Scarce	2	1km, 10km	01/01/1987	01/01/1995
<i>Dactylorhiza maculata</i> subsp. <i>ericetorum</i>	Heath Spotted-Orchid	Local Spp of Cons Conc	4	1km, 10km	1900	2001

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
<i>Dianthus armeria</i>	Deptford Pink	W&CA Sch8 NERC Act Section 41 UKBAP Local Spp of Cons Conc RedList_GB-EN Nationally Scarce	2	10km	1889	1909
<i>Draba muralis</i>	Wall Whitlowgrass	Nationally Scarce	1	10km	1951	1951
<i>Eleocharis acicularis</i>	Needle Spike-rush	Local Spp of Cons Conc	1	10km	14/07/1929	1929
<i>Epipactis purpurata</i>	Violet Helleborine	Local Spp of Cons Conc	2	10km	1872	02/08/1909
<i>Erica tetralix</i>	Cross-leaved Heath	Local Spp of Cons Conc	1	10km	1944	01/01/1944
<i>Euphorbia exigua</i>	Dwarf Spurge	RedList_GB-Lr(NT)	4	10km	07/10/1922	04/07/1998
<i>Filago vulgaris</i>	Common Cudweed	Local Spp of Cons Conc RedList_GB-Lr(NT)	1	10km	1941	01/01/1941
<i>Fritillaria meleagris</i>	Fritillary	Nationally Scarce	2	1km, 10km	1877	1950
<i>Galeopsis angustifolia</i>	Red Hemp-nettle	NERC Act Section 41 UKBAP Local Spp of Cons Conc RedList_GB-CR Nationally Scarce	4	1km, 10km	1874	1955
<i>Galeopsis speciosa</i>	Large-flowered Hemp-nettle	RedList_GB-VU	2	1km, 10km	1950	1964
<i>Genista anglica</i>	Petty Whin	Local Spp of Cons Conc RedList_GB-Lr(NT)	8	1km, 10km	1950	24/05/2003
<i>Genista tinctoria</i>	Dyer's Greenweed	Local Spp of Cons Conc	5	1km, 10km	01/01/1843	01/01/1964
<i>Genista tinctoria subsp. tinctoria</i>	Dyer's Greenweed	Local Spp of Cons Conc	1	1km	04/07/1998	04/07/1998
<i>Gentianella germanica</i>	Chiltern Gentian	RedList_GB-VU Nationally Scarce	3	10km	1945	1977
<i>Geranium columbinum</i>	Long-stalked Crane's-bill	Local Spp of Cons Conc	2	10km	1877	1981
<i>Geranium pratense</i>	Meadow Crane's-bill	Local Spp of Cons Conc	1	10km	01/01/1964	1964
<i>Glebionis segetum</i>	Corn Marigold	RedList_GB-VU	3	1km, 10km	1902	07/09/1912
<i>Gnaphalium sylvaticum</i>	Heath Cudweed	RedList_GB-EN	2	10km	25/09/1898	01/01/1954
<i>Groenlandia densa</i>	Opposite-leaved Pondweed	RedList_GB-VU	2	10km	01/01/1964	01/01/1964
<i>Gymnadenia conopsea</i>	Fragrant Orchid	Local Spp of Cons Conc	3	1km, 10km	01/01/1946	01/01/1965
<i>Helleborus viridis</i>	Green Hellebore	Local Spp of Cons Conc	1	10km	1876	01/01/1876
<i>Hieracium virgultorum</i>	Hawkweed	Nationally Rare	9	1km, 10km	1945	01/01/1995
<i>Hordelymus europaeus</i>	Wood Barley	Nationally Scarce	3	1km, 10km	1951	01/01/1964
<i>Hyacinthoides non-scripta</i>	Bluebell	W&CA Sch8 Local Spp of Cons Conc	5	1km, 2km, 10km	1965-1976	06/10/2002
<i>Hydrocharis morsus-ranae</i>	Frogbit	RedList_GB-VU	1	10km	1945	01/01/1945
<i>Hydrocotyle vulgaris</i>	Marsh Pennywort	Local Spp of Cons Conc	3	10km	1952	24/05/2003
<i>Jasione montana</i>	Sheep's-bit	Local Spp of Cons Conc	2	10km	01/01/1780	07/09/1912
<i>Juncus squarrosus</i>	Heath Rush	Local Spp of Cons Conc	2	10km	1900	01/01/1947
<i>Kickxia elatine</i>	Sharp-leaved Fluellen	Local Spp of Cons Conc	1	10km	01/01/1964	01/01/1964
<i>Kickxia spuria</i>	Round-leaved Fluellen	Local Spp of Cons Conc	2	1km, 10km	1944	01/01/1955
<i>Koeleria macrantha</i>	Crested Hair-grass	Local Spp of Cons Conc	1	10km	04/07/1998	04/07/1998
<i>Lathraea squamaria</i>	Toothwort	Local Spp of Cons Conc	2	10km	1946	1950
<i>Lathyrus aphaca</i>	Yellow Vetchling	Local Spp of Cons Conc RedList_GB-VU Nationally Scarce	1	10km	1995	1995
<i>Lathyrus linifolius</i>	Bitter-vetch	Local Spp of Cons Conc	5	10km	01/01/1869	1990
<i>Lepidium latifolium</i>	Dittander	Nationally Scarce	8	10km	1937	2003
<i>Linaria repens</i>	Pale Toadflax	Local Spp of Cons Conc	1	10km	2001	2001
<i>Lithospermum arvense</i>	Field Gromwell	RedList_GB-EN	1	10km	1920	1920

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
<i>Meconopsis cambrica</i>	Welsh Poppy	Nationally Scarce	2	10km	1947	1981
<i>Medicago polymorpha</i>	Toothed Medick	Local Spp of Cons Conc Nationally Scarce	1	10km	1961	1961
<i>Melampyrum pratense</i>	Common Cow-wheat	Local Spp of Cons Conc	8	1km, 2km, 10km	01/01/1869	1965-1976
<i>Moenchia erecta</i>	Upright Chickweed	Local Spp of Cons Conc	1	10km	01/01/1964	1964-1964
<i>Myosotis discolor</i>	Changing Forget-me-not	Local Spp of Cons Conc	1	1km	1954	1954-1954
<i>Myriophyllum alterniflorum</i>	Alternate Water-milfoil	Local Spp of Cons Conc	1	1km	2002	2002-2002
<i>Myriophyllum verticillatum</i>	Whorled Water-milfoil	Local Spp of Cons Conc RedList_GB-VU	1	10km	1981	1981-1981
<i>Neottia nidus-avis</i>	Bird's-nest Orchid	Local Spp of Cons Conc RedList_GB-Lr(NT)	2	10km	1877	1946
<i>Nepeta cataria</i>	Cat-mint	RedList_GB-VU	4	10km	1907	1999
<i>Oenanthe fluviatilis</i>	River Water-dropwort	BAP Priority London Local Spp of Cons Conc	5	10km	1952	24/05/2003
<i>Onobrychis viciifolia</i>	Sainfoin	RedList_GB-Lr(NT)	3	10km	1900	01/01/1920
<i>Ononis spinosa</i>	Spiny Restharrow	Local Spp of Cons Conc	6	1km, 2km, 10km	1952	1965-1976
<i>Ophrys insectifera</i>	Fly Orchid	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc RedList_GB-VU	9	2km, 10km	23/05/1889	1902
<i>Orchis mascula</i>	Early-purple Orchid	Local Spp of Cons Conc	3	10km	1945	1983
<i>Papaver argemone</i>	Prickly Poppy	RedList_GB-VU	5	10km	01/01/1884	1986
<i>Pedicularis sylvatica</i>	Lousewort	Local Spp of Cons Conc	8	1km, 10km	1944	22/05/1983
<i>Pedicularis sylvatica subsp. sylvatica</i>	Lousewort	Local Spp of Cons Conc	2	10km	1983	01/01/1983
<i>Polygala serpyllifolia</i>	Heath Milkwort	Local Spp of Cons Conc	7	10km	1939	01/01/1964
<i>Polygonatum multiflorum</i>	Solomon's-seal	Local Spp of Cons Conc	2	10km	1995	01/01/2006
<i>Polygonatum odoratum</i>	Angular Solomon's-seal	Nationally Scarce	1	10km	1995	01/01/1995
<i>Polygonum rurivagum</i>	Cornfield Knotgrass	Local Spp of Cons Conc	1	10km	1960	01/01/1960
<i>Polypogon monspeliensis</i>	Annual Beard-grass	Nationally Scarce	1	10km	1978	01/01/1978
<i>Populus nigra subsp. betulifolia</i>	Black Poplar	BAP Priority London	1	10km	1950	01/01/1950
<i>Potamogeton lucens</i>	Shining Pondweed	Local Spp of Cons Conc	1	10km	20/06/1940	20/06/1940
<i>Potamogeton perfoliatus</i>	Perfoliate Pondweed	Local Spp of Cons Conc	1	10km	01/01/1964	01/01/1964
<i>Potamogeton trichoides</i>	Hairlike Pondweed	Local Spp of Cons Conc	1	10km	1940	01/01/1940
<i>Potentilla anglica</i>	Trailing Tormentil	Local Spp of Cons Conc	10	1km, 2km, 10km	1900	01/01/1984
<i>Potentilla argentea</i>	Hoary Cinquefoil	Local Spp of Cons Conc RedList_GB-Lr(NT)	2	10km	1882	1954
<i>Ranunculus arvensis</i>	Corn Buttercup	NERC Act Section 41 UKBAP RedList_GB-CR	3	10km	1900	1939
<i>Ranunculus hederaceus</i>	Ivy-leaved Crowfoot	Local Spp of Cons Conc	4	1km, 10km	1928	1964
<i>Rosa obtusifolia</i>	Round-leaved Dog-rose	Local Spp of Cons Conc	1	10km	1945	1945
<i>Rosa stylosa</i>	Short-styled Field-rose	Local Spp of Cons Conc	1	10km	1976	1976
<i>Rubus britannicus</i>	Bramble	Nationally Rare	4	1km, 10km	1952	11/10/1998
<i>Salix aurita</i>	Eared Willow	Local Spp of Cons Conc	2	10km	1977	2002
<i>Salix repens</i>	Creeping Willow	Local Spp of Cons Conc	3	10km	1944-1950	1965
<i>Salix repens var. repens</i>	Willow	Local Spp of Cons Conc	3	10km	1948	1965
<i>Scandix pecten-veneris</i>	Shepherd's-needle	NERC Act Section 41 UKBAP Local Spp of Cons Conc RedList_GB-CR	5	10km	1912	1964

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
<i>Scleranthus annuus</i>	Annual Knawel	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc RedList_GB-EN	7	10km	1900	1975
<i>Scutellaria minor</i>	Lesser Skullcap	Local Spp of Cons Conc	9	1km, 10km	1891	1989
<i>Sedum telephium</i>	Orpine	Local Spp of Cons Conc	4	10km	1903	1951
<i>Serratula tinctoria</i>	Saw-wort	Local Spp of Cons Conc	3	2km, 10km	1920	1957
<i>Sium latifolium</i>	Greater Water-parsnip	NERC Act Section 41 UKBAP RedList_GB-EN Nationally Scarce	3	1km, 10km	1911	01/01/1964
<i>Spergula arvensis</i>	Corn Spurrey	RedList_GB-VU	11	2km, 10km	1900	1991
<i>Stratiotes aloides</i>	Water-soldier	RedList_GB-Lr(NT) Nationally Rare	1	10km	1995	1995
<i>Succisa pratensis</i>	Devil's-bit Scabious	Local Spp of Cons Conc	5	1km, 2km, 10km	1965-1976	2004
<i>Thalictrum flavum</i>	Common Meadow-rue	Local Spp of Cons Conc	9	1km, 10km	1877	1947
<i>Torilis arvensis</i>	Spreading Hedge-parsley	NERC Act Section 41 UKBAP RedList_GB-EN Nationally Scarce	6	10km	1903	1986
<i>Ulex minor</i>	Dwarf Gorse	Local Spp of Cons Conc	6	1km, 2km, 10km	01/01/1808	1965-1976
<i>Vaccinium myrtillus</i>	Bilberry	Local Spp of Cons Conc	2	1km, 10km	1876	1877
<i>Valeriana officinalis</i>	Common Valerian	Local Spp of Cons Conc	2	1km, 10km	01/01/1964	1965
<i>Valerianella rimosa</i>	Broad-fruited Cornsalad	NERC Act Section 41 UKBAP RedList_GB-EN Nationally Scarce	3	10km	01/01/1839	1889
<i>Veronica scutellata</i>	Marsh Speedwell	Local Spp of Cons Conc	1	10km	24/06/1989	1989
<i>Viola canina</i>	Heath Dog-violet	Local Spp of Cons Conc RedList_GB-Lr(NT)	1	10km	01/01/1964	1964
<i>Viola canina subsp. canina</i>	Heath Dog-Violet	Local Spp of Cons Conc RedList_GB-Lr(NT)	8	1km, 10km	01/06/1902	1944
<i>Viola tricolor subsp. tricolor</i>	Pansy	RedList_GB-Lr(NT)	2	10km	10/09/1910	1910
<i>Viscum album</i>	Mistletoe	BAP Priority London Local Spp of Cons Conc	11	1km, 10km	1876	2002
Invertebrates - Butterflies						
<i>Coenonympha pamphilus pamphilus</i>	Small Heath	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc RedList_GB-Lr(NT)	1	10km	1980-1986	1980
<i>Lasiommata megera</i>	Wall	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc RedList_GB-Lr(NT)	1	1km	1980-1986	1980
Invertebrates - Moths						

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
<i>Acronicta psi</i>	Grey Dagger	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	3	1km, 10km	1918	1961
<i>Acronicta rumicis</i>	Knot Grass	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	4	10km	1952	1961
<i>Agrochola helvola</i>	Flounced Chestnut	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1	10km	1952	1952
<i>Agrochola litura</i>	Brown-spot Pinion	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	2	10km	1961	1961
<i>Agrochola lychnidis</i>	Beaded Chestnut	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	3	10km	1952	1961
<i>Allophytes oxyacanthae</i>	Green-brindled Crescent	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	4	10km	1918	1961
<i>Amphipoea oculea</i>	Ear Moth	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1	10km	1977	1977
<i>Amphipyra tragopoginis</i>	Mouse Moth	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	2	1km, 10km	1961	1961
<i>Apamea anceps</i>	Large Nutmeg	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	2	10km	1952	1961
<i>Apamea remissa</i>	Dusky Brocade	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	2	10km	1952	1961
<i>Apamea sublustri</i>	Reddish Light Arches	Local Spp of Cons Conc	1	10km	1952	1952
<i>Arctia caja</i>	Garden Tiger	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	2	10km	1952	1961
<i>Arenostola phragmitidis</i>	Fen Wainscot	Local Spp of Cons Conc	1	10km	02/07/2005	2005
<i>Atethmia centrargo</i>	Centre-barred Sallow	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1	1km	1952	1952

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
<i>Caradrina morpheus</i>	Mottled Rustic	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	3	10km	1918	1961
<i>Ceramica pisi</i>	Broom Moth	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	4	10km	1918	1961
<i>Chiasmia clathrata</i>	Latticed Heath	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	3	10km	1918	1961
<i>Cirrhia gilvago</i>	Dusky-lemon Sallow	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1	10km	1961	1961
<i>Cirrhia icteritia</i>	Sallow	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	4	10km	1918	1961
<i>Cosmia diffinis</i>	White-spotted Pinion	NERC Act Section 41 UKBAP	1	10km	1952	1952
<i>Cymatophorina diluta</i>	Oak Lutestring	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1	10km	1952	1952
<i>Diarsia rubi</i>	Small Square-spot	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	2	10km	1952	1961
<i>Dicycla oo</i>	Heart Moth	NERC Act Section 41 UKBAP	2	10km	1952	1961
<i>Ecliptopera silaceata</i>	Small Phoenix	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	3	10km	1918	1961
<i>Ennomos erosaria</i>	September Thorn	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1	10km	1952	1952
<i>Ennomos fuscantaria</i>	Dusky Thorn	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	3	10km	1952	1961
<i>Ennomos quercinaria</i>	August Thorn	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1	10km	1961	1961
<i>Eulithis mellinata</i>	Spinach	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	3	10km	1961	2013

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
<i>Euxoa nigricans</i>	Garden Dart	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	2	10km	1952	1961
<i>Graphiphora augur</i>	Double Dart	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	4	1km, 10km	1918	1977
<i>Hemistola chrysoprasaria</i>	Small Emerald	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1	10km	1952	1952
<i>Hepialus humuli</i>	Ghost Moth	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	3	10km	1918	1961
<i>Hoplodrina blanda</i>	Rustic	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	4	10km	1918	1961
<i>Hydraecia micacea</i>	Rosy Rustic	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	3	10km	1952	1961
<i>Lacanobia suasa</i>	Dog's Tooth	Local Spp of Cons Conc	1	10km	1952	1952
<i>Leucania comma</i>	Shoulder-striped Wainscot	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	2	10km	1952	1961
<i>Lycia hirtaria</i>	Brindled Beauty	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	3	10km	1961	1977
<i>Macaria wauaria</i>	V-Moth	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1	10km	1952	1952
<i>Malacosoma neustria</i>	Lackey	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	2	10km	1918	1961
<i>Melanchra persicariae</i>	Dot Moth	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	3	10km	1918	1961
<i>Orthosia gracilis</i>	Powdered Quaker	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	3	10km	1952	1961
<i>Orthosia miniosa</i>	Blossom Underwing	Local Spp of Cons Conc	2	10km	1952	1961
<i>Orthosia opima</i>	Northern Drab	Local Spp of Cons Conc	2	10km	1952	1961
<i>Orthosia populeti</i>	Lead-coloured Drab	Local Spp of Cons Conc	1	10km	1952	1952

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
<i>Pelurga comitata</i>	Dark Spinach	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	2	10km	1952	1961
<i>Rhizedra lutosa</i>	Large Wainscot	NERC Act Section 41 UKBAP	1	10km	1961	1961
<i>Scopula immutata</i>	Lesser Cream Wave	Local Spp of Cons Conc	1	10km	1930	1930
<i>Scotopteryx chenopodiata</i>	Shaded Broad-bar	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	1	10km	1918	1918
<i>Scotopteryx luridata</i>	July Belle	Local Spp of Cons Conc	1	1km	1961	1961
<i>Sideridis reticulata</i>	Bordered Gothic	NERC Act Section 41 UKBAP	1	10km	1952	1952
<i>Spilosoma lubricipeda</i>	White Ermine	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	4	1km, 10km	1918	1977
<i>Spilosoma lutea</i>	Buff Ermine	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	2	10km	1952	1961
<i>Tholera cespitis</i>	Hedge Rustic	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	2	10km	1952	1961
<i>Tholera decimalis</i>	Feathered Gothic	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	3	10km	1952	1961
<i>Thumatha senex</i>	Round-winged Muslin	Local Spp of Cons Conc	1	10km	1918	1918
<i>Timandra comae</i>	Blood-vein	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	3	1km, 10km	1952	1961
<i>Triphosa dubitata</i>	Tissue	Local Spp of Cons Conc	1	10km	1952	1952
<i>Tyria jacobaeae</i>	Cinnabar	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	2	10km	1934	1961
<i>Tyta luctuosa</i>	Four-spotted	NERC Act Section 41 UKBAP Local Spp of Cons Conc	1	10km	1952	1952
<i>Watsonalla binaria</i>	Oak Hook-tip	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	2	10km	1952	1961
<i>Xanthorhoe ferrugata</i>	Dark-barred Twin-spot Carpet	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc	5	10km	1918	1961

4.2 Confidential Records

Records included in this section do not include any geographic content as it has been requested (by the data owners/originators) that the location remains confidential. The following information is provided to create a 'species alert' record highlighting the presence of a species in the search area.

In order to establish the presence of confidential records on the site in question, a second data search request must be submitted with a detailed site boundary. For further explanations of GiGL's Access to Data Policy and the confidential records please see the "Supporting Information" annex. For further details of the information provided in the report please contact GiGL directly - enquiries@gigl.org.uk.

Taxon Name	Common Name	Designation	Total number of occurrences	Date of oldest record	Date of most recent record
Birds					
<i>Falco subbuteo</i>	Hobby	W & CA Sch1 Part 1 Local Spp of Cons Conc	2	16/07/1983	20/09/2013
Mammals - Terrestrial (excl. bats)					
<i>Meles meles</i>	Eurasian Badger	Protection of Badgers Act 1992 Local Spp of Cons Conc	1	16/10/2015	16/10/2015

4.3 LISI Species

The London Invasive Species Initiative (LISI) encourages better co-ordination and partnership working to prevent, reduce and eliminate the impacts caused by invasive non-native species across the city.

The list presents a number of species present in London and causing impacts for which action, monitoring or research is needed. It also lists species not currently in London but of concern due to high risk of negative impact should they arrive, including those for which national alerts are in place through the GB Non-Native Species Secretariat. LISI species are categorised following their likely risk to the environment. For further explanations please see the Supporting Information annex.

LISI Category	Explanation
LISI 1	Species not currently present in London but present nearby or of concern because of the high risk of negative impacts should they arrive. Should any species listed in this category appear in London, this should be reported to GIGL or LISI to ensure that action is taken rapidly.
LISI 2	Species of high impact or concern present at specific sites that require attention (control, management, eradication etc). Such species are priority species for action in London and LISI encourages this wherever possible.
LISI 3	Species of high impact or concern which are widespread in London and require concerted, coordinated and extensive action to control/eradicate. These species are species currently causing large scale impacts across London and LISI supports area or catchment wide partnership working to ensure this.
LISI 4	Species which are widespread for which eradication is not feasible but where avoiding spread to other sites may be required. Appropriate biosecurity is required for sites where these species are found.
LISI 5	Species for which insufficient data or evidence was available from those present to be able to prioritise.
LISI 6	Species that were not currently considered to pose a threat or have the potential to cause problems in London.

For further advice on dealing with invasive species in London, or to report management work undertaken at a site please contact the LISI Manager at enquiries@londonisi.org.uk or visit <http://londonisi.org.uk/>

Taxon Name	Common Name	Designation	Total number of occurrences	Maximum occurrence	Location of nearest record	Date of nearest record	Location of most recent record	Date of most recent record	Date range
Birds									
<i>Psittacula krameri</i>	Ring-necked Parakeet	LISI category 4	1	P	TQ091909	1996	TQ091909	1996	01/01/96-31/12/96
Higher Plants - Flowering Plants									
<i>Ailanthus altissima</i>	Tree-of-heaven	LISI category 3	3	P	TQ1015890594	01/01/2020	TQ1015890594	01/01/2020	01/01/2020
<i>Ambrosia artemisiifolia</i>	Ragweed	LISI category 5	2	10	TQ103909	2004	TQ103909	2004	01/01/04-31/12/04
<i>Buddleja davidii</i>	Butterfly-bush	LISI category 3	8	P	TQ0940891081	04/10/2006	TQ107909	30/10/2009	22/06/99-30/10/09
<i>Cotoneaster</i>	A Flowering Plant	LISI category 2	2	P	TQ0947091591	18/10/2004	TQ0947091591	18/10/2004	02/08/04-18/10/04
<i>Cotoneaster frigidus x salicifolius</i> = <i>C. x watereri</i>	Waterer's Cotoneaster	LISI category 2	1	P	TQ107909	30/10/2009	TQ107909	30/10/2009	30/10/2009
<i>Cotoneaster horizontalis</i>	Wall Cotoneaster	LISI category 2	1	P	TQ107909	30/10/2009	TQ107909	30/10/2009	30/10/2009
<i>Cotoneaster salicifolius</i>	Willow-leaved Cotoneaster	LISI category 2	1	P	TQ092913	1995	TQ092913	1995	01/01/95-31/12/95
<i>Crocosmia pottsii x aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia	LISI category 2	1	P	TQ107909	30/10/2009	TQ107909	30/10/2009	30/10/2009
<i>Fallopia japonica</i>	Japanese Knotweed	LISI category 3	2	P	TQ0947091591	18/10/2004	TQ0947091591	18/10/2004	22/06/99-18/10/04
<i>Fallopia sachalinensis</i>	Giant Knotweed	LISI category 5	1	P	TQ0940891081	04/10/2006	TQ0940891081	04/10/2006	04/10/2006
<i>Pentaglottis sempervirens</i>	Green Alkanet	LISI category 6	1	P	TQ107909	30/10/2009	TQ107909	30/10/2009	30/10/2009
<i>Prunus laurocerasus</i>	Cherry Laurel	LISI category 3	8	P	TQ0968591749	13/08/2004	TQ0964791902	01/01/2020	01/06/04-01/01/20
<i>Quercus cerris</i>	Turkey Oak	LISI category 5	2	P	TQ1011891702	01/01/2020	TQ1011891702	01/01/2020	01/01/2020
<i>Quercus ilex</i>	Evergreen Oak	LISI category 5	4	P	TQ0965990535	01/01/2020	TQ0965990535	01/01/2020	01/01/2020
<i>Rhododendron ponticum</i>	A Flowering Plant	LISI category 2	1	P	TQ1043891666	02/08/2004	TQ1043891666	02/08/2004	02/08/2004
<i>Robinia pseudoacacia</i>	False-acacia	LISI category 4	8	P	TQ0978991360	01/01/2020	TQ0978991360	01/01/2020	01/01/2020
<i>Symphoricarpos albus</i>	Snowberry	LISI category 2	6	2	TQ1024290919	01/06/2004	TQ107909	30/10/2009	01/01/94-30/10/09

LISI species – Coarse Resolution Records

The species records in this table are represent records of 1km², 2km² or 10km² accuracy.

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
Birds						
<i>Psittacula krameri</i>	Ring-necked Parakeet	LISI category 4	3	1km	22/04/2013	03/06/2014
Higher Plants - Ferns						
<i>Azolla filiculoides</i>	Water Fern	LISI category 2	1	1km	01/01/1973	01/01/1973
Higher Plants - Flowering Plants						
<i>Ambrosia artemisiifolia</i>	Ragweed	LISI category 5	1	10km	1945	1945
<i>Buddleja davidii</i>	Butterfly-bush	LISI category 3	6	1km, 2km, 10km	1965-1976	2004
<i>Cotoneaster salicifolius</i>	Willow-leaved Cotoneaster	LISI category 2	1	10km	01/01/1987	01/01/1987
<i>Elodea canadensis</i>	Canadian Waterweed	LISI category 4	1	1km	1995	1995
<i>Elodea nuttallii</i>	Nuttall's Waterweed	LISI category 4	1	10km	01/01/1976	01/01/1976
<i>Fallopia japonica</i>	Japanese Knotweed	LISI category 3	5	1km, 2km, 10km	1965-1976	2004
<i>Fallopia sachalinensis</i>	Giant Knotweed	LISI category 5	2	10km	1994	24/05/2003
<i>Galega officinalis</i>	Goat's-rue	LISI category 4	3	2km, 10km	1965-1976	1995
<i>Galinsoga parviflora</i>	Gallant Soldier	LISI category 3	1	10km	1965-1976	1965-1976
<i>Heracleum mantegazzianum</i>	Giant Hogweed	LISI category 3	5	1km, 10km	01/01/1928	01/01/1966
<i>Hyacinthoides hispanica</i>	Spanish Bluebell	LISI category 4	1	10km	1965-1976	1965-1976
<i>Impatiens capensis</i>	Orange Balsam	LISI category 2	5	1km, 10km	01/01/1866	01/01/1964
<i>Impatiens glandulifera</i>	Indian Balsam	LISI category 3	4	10km	1952	12/05/2006
<i>Impatiens parviflora</i>	Small Balsam	LISI category 2	3	10km	1988	24/05/2003
<i>Lamium galeobdolon subsp. argentatum</i>	Yellow Archangel	LISI category 4	2	2km, 10km	2004	2004
<i>Lemna minuta</i>	Least Duckweed	LISI category 4	1	2km	1991	1991
<i>Lysichiton americanus</i>	American Skunk-cabbage	LISI category 2	2	10km	1979	1980
<i>Prunus laurocerasus</i>	Cherry Laurel	LISI category 3	3	2km, 10km	1995	2004
<i>Quercus cerris</i>	Turkey Oak	LISI category 5	1	10km	1995	1995
<i>Rhododendron ponticum</i>	A Flowering Plant	LISI category 2	4	1km, 2km, 10km	1965-1976	2004
<i>Robinia pseudoacacia</i>	False-acacia	LISI category 4	3	1km, 10km	1965-1976	1995
<i>Symphoricarpos albus</i>	Snowberry	LISI category 2	3	1km, 10km	1965-1976	1995

5.0 Habitats

Habitats present within the search area from these sources can be seen on the following pages:

- Survey data
- BAP Condition Assessment and Habitat Suitability

The tables can be cross-referenced with the Survey Parcels Map.

Note that GiGL does not currently hold habitat data for all areas. Even where data is held, a lack of records in a defined geographical area does not necessarily mean that the habitat does not occur there – the area may simply not have been surveyed.

This section identifies and maps components of the local ecological networks and potential areas identified for habitat restoration or creation.

5.1 Survey Data

This table holds the most recent habitat survey information for a given site. It includes data collected via different survey methodologies. The GLA conducted a series of rolling habitat surveys between the mid-1980s and 2009. It used the habitat typologies developed specifically for Greater London – for further details of categories please refer to the Supporting Information section of the Annex. Other habitat classification methodologies recorded in the database are National Vegetation Classification, Phase 1 Habitat Assessment, and Biodiversity Action Plan Broad Habitat classification.

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
Northwood Golf Course, Greens	GiGL_HAB_11833	(508869,190802)	41.40	18/10/2004	Amenity grassland	50	20.64	Lon(P1)
					Native broadleaved woodland	20	8.25	
					Neutral grassland (semi-improved)	10	4.13	
					Scrub	5	2.06	
					Scattered trees	5	2.06	
					Bare artificial habitat	5	2.06	
					Acid grassland	5	2.06	
Northwood Golf Course, SINC Area	GiGL_HAB_11834	(509253,190679)	4.82	18/10/2004	Amenity grassland	50	2.4	Lon(P1)
					Native broadleaved woodland	20	0.96	
					Scattered trees	10	0.48	
					Scrub	5	0.24	
					Non-native hedge	5	0.24	
					Native hedge	5	0.24	
					Bare artificial habitat	5	0.24	
Haste Hill Golf Course, East copse	GiGL_HAB_11868	(509520,190350)	2.61	11/10/2004	Native broadleaved woodland	60	1.56	Lon(P1)
					Scrub	22	0.57	
					Non- native broadleaved woodland	5	0.13	
					Neutral grassland (herb-rich)	5	0.13	
					Bare soil and rock	5	0.13	
					Running water (rivers and streams)	2	0.05	
					Coniferous woodland	1	0.03	

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
Hogs Back open space, Woodlands circumference	GiGL_HAB_11887	(510242,190919)	2.78	01/06/2004	Native broadleaved woodland Non- native broadleaved woodland Roughland (intimate mix of 9, 14 and 6) Amenity grassland	40 30 15 15	1.11 0.83 0.42 0.42	Lon(P1)
Hogs Back open space, Clearing at top	GiGL_HAB_11888	(510333,190847)	2.04	01/06/2004	Amenity grassland tall herbs Scrub Scattered trees	55 15 15 15	1.12 0.3 0.3 0.3	Lon(P1)
St Johns School, South Sports Field	GiGL_HAB_11889	(510470,191289)	4.94	02/08/2004	Amenity grassland Native hedge Scattered trees Bare soil and rock Neutral grassland (herb-rich)	85 6 4 3 2	4.18 0.3 0.2 0.15 0.1	Lon(P1)
St Johns School, Thick hedgerow to East margin	GiGL_HAB_11890	(510620,191384)	0.86	02/08/2004	Native hedge Scattered trees Non-native hedge Neutral grassland (herb-rich)	70 10 10 10	0.6 0.09 0.09 0.09	Lon(P1)
St Johns School, Donkey Field	GiGL_HAB_11891	(510648,191139)	1.28	02/08/2004	Neutral grassland (herb-rich) tall herbs Neutral grassland (semi-improved) Native hedge Scattered trees Ditches (water filled)	60 15 10 8 4 3	0.77 0.19 0.13 0.1 0.05 0.04	Lon(P1)
St Johns School, Main building complex and grassland to South	GiGL_HAB_11892	(510507,191492)	2.78	02/08/2004	Amenity grassland Bare artificial habitat Scattered trees Native hedge Non-native hedge Bare soil and rock	48 40 5 3 2 2	1.33 1.11 0.14 0.08 0.06 0.06	Lon(P1)

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
St Johns School, Nature Trail	GiGL_HAB_11893	(510438,191666)	1.71	02/08/2004	Scrub	40	0.68	Lon(P1)
					Native broadleaved woodland	20	0.34	
					Acid grassland	20	0.34	
					Neutral grassland (herb-rich)	10	0.17	
					tall herbs	9	0.15	
					Standing water (includes canals)	1	0.02	
St Johns School, North playing field	GiGL_HAB_11894	(510525,191661)	1.00	02/08/2004	Amenity grassland	89	0.89	Lon(P1)
					Bare artificial habitat	10	0.1	
					Scattered trees	1	0.01	
St Johns School, East ponds (#2)	GiGL_HAB_11895	(510591,191503)	0.12	02/08/2004	Standing water (includes canals)	70	0.08	Lon(P1)
					Scattered trees	10	0.01	
					Bare soil and rock	10	0.01	
					Bare artificial habitat	10	0.01	
Northwood FC	GiGL_HAB_12080	(509837,190325)	1.71	06/10/2004	Amenity grassland	55	0.94	Lon(P1)
					Bare artificial habitat	25	0.43	
					Scattered trees	10	0.17	
					Roughland (intimate mix of 9, 14 and 6)	10	0.17	
Frithwood School	GiGL_HAB_12095	(509685,191749)	0.70	13/08/2004	Amenity grassland	70	0.49	Lon(P1)
					Bare artificial habitat	18	0.13	
					Scattered trees	10	0.07	
					Ruderal or ephemeral	2	0.01	
Northwood Cemetery	GiGL_HAB_12302	(509699,190260)	6.43	19/10/2004	Amenity grassland	35	2.24	Lon(P1)
					Scattered trees	30	1.92	
					Vegetated walls, tombstones etc.	20	1.28	
					Planted shrubbery	5	0.32	
					Native hedge	5	0.32	
					Bare soil and rock	5	0.32	
Northwood Recreation Ground	GiGL_HAB_12303	(509736,190550)	1.91	06/10/2004	Amenity grassland	65	1.24	Lon(P1)
					Bare artificial habitat	25	0.48	
					Scattered trees	5	0.1	
					Non-native hedge	4	0.08	
					Native hedge	1	0.02	

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
Northwood Recreation Ground, Northwood Recreation Ground amenity area	GiGL_HAB_12304	(509910,190294)	7.76	06/10/2004	Amenity grassland Scattered trees Neutral grassland (semi-improved) Ruderal or ephemeral Native hedge	87 4 3 3 3	6.73 0.31 0.23 0.23 0.23	Lon(P1)
St Helens School	GiGL_HAB_12305	(509470,191591)	7.42	18/10/2004	Amenity grassland Bare artificial habitat Scattered trees Non-native hedge Native hedge	51 30 15 2 2	3.77 2.22 1.11 0.15 0.15	Lon(P1)
Metropolitan Line - Watford Branch, Northwood Hills to Northwood Tube	GiGL_HAB_12307	(509526,190864)	5.23	23/09/2004	Bare artificial habitat Scattered trees Scrub Bare soil and rock	65 25 5 5	3.39 1.3 0.26 0.26	Lon(P1)
Metropolitan Line - Watford Branch, Northwood Tube to north Hillingdon boundary	GiGL_HAB_12308	(509170,191768)	3.27	23/09/2004	Bare artificial habitat Scattered trees Scrub Neutral grassland (semi-improved) Bare soil and rock	40 30 20 5 5	1.3 0.98 0.65 0.16 0.16	Lon(P1)
Northwood Comprehensive School & Sports Centre	GiGL_HAB_12319	(510487,190551)	5.99	02/08/2004	Amenity grassland Bare artificial habitat Native hedge Scattered trees Non-native hedge	60 30 5 3 2	3.58 1.79 0.3 0.18 0.12	Lon(P1)
Frithwood Park	GiGL_HAB_12320	(509568,191789)	1.07	13/08/2004	Amenity grassland Scattered trees Bare artificial habitat	50 30 20	0.54 0.32 0.21	Lon(P1)
Chestnut Avenue Allotments	GiGL_HAB_12363	(509707,190438)	0.93	06/10/2004	Allotments (active) Neutral grassland (semi-improved) Scattered trees Native hedge Bare artificial habitat Ruderal or ephemeral	72 10 5 5 5 3	0.67 0.09 0.05 0.05 0.05 0.03	Lon(P1)

5.2 BAP Condition Assessment & Habitat Suitability

The London Biodiversity Partnership (LBP) habitat suitability dataset was created to promote the preservation, restoration and re-creation of priority habitats. This is a modelled dataset which, if used to create one or more of the nine selected BAP priority habitats, should give the best benefit to biodiversity in London.

Launched in 2010, this dataset is based on methods developed with the London Biodiversity Partnership's Habitat Action Plan (HAP) groups. GiGL mapped Biodiversity Action Plan (BAP) habitat distribution using information from GLA habitat surveys, and assessed their condition using species records and other datasets. Further to this work, GiGL created a predictive model of areas suitable for either maintaining existing BAP habitat, expanding areas of BAP habitat or creating new BAP habitats. Again, the methodology was designed in partnership with the HAP groups, and includes factors such as soil type.

This dataset was a one-off project and is not updated.

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Created Date	Habitat Condition	Area (ha)	Habitat Suitability	Area (ha)
Northwood Golf Course, Greens	GiGL_HAB_11833	(508869,190802)	41.40	2004	Wood Unknown condition (management not known) Species Rich Acid grass CAT C	8.25 2.06	Create new/restore relict acid grass	41.27
Northwood Golf Course, SINC Area	GiGL_HAB_11834	(509253,190679)	4.82	2004	Wood Unknown condition (management not known)	0.96	Create new/restore relict wood	4.81
Haste Hill Golf Course, East copse	GiGL_HAB_11868	(509520,190350)	2.61	2004	Wood Unknown condition (management not known) Meadow condition Poor	1.72 0.13	Create new/restore relict meadow	0.88
Hogs Back open space, Woodlands circumference	GiGL_HAB_11887	(510242,190919)	2.78	2004	Wood Unknown condition (management not known)	1.94	Create new/restore relict wood	2.77
Hogs Back open space, Clearing at top	GiGL_HAB_11888	(510333,190847)	2.04	2004			Create new/restore relict wood	2.03
St Johns School, South Sports Field	GiGL_HAB_11889	(510470,191289)	4.94	2004	Meadow condition Poor	0.10	Create new/restore relict meadow	4.92
St Johns School, Thick hedgerow to East margin	GiGL_HAB_11890	(510620,191384)	0.86	2004	Meadow condition Poor	0.09	Create new/restore relict meadow Create new/restore relict pond	0.86 0.77
St Johns School, Donkey Field	GiGL_HAB_11891	(510648,191139)	1.28	2004	Floodplain G M condition Poor Meadow condition Poor	0.9 0.77	Create new/restore relict floodplain GM Create new/restore relict meadow	0.51 0.38
St Johns School, Main building complex and grassland to South	GiGL_HAB_11892	(510507,191492)	2.78	2004			Create new/restore relict pond	2.77
St Johns School, Nature Trail	GiGL_HAB_11893	(510438,191666)	1.71	2004	Wood Unknown condition (management not known) Species Rich Acid grass CAT B Meadow condition Poor Pond condition Poor	0.34 0.34 0.17 0.02	Create new/restore relict meadow Create new/restore relict pond Expand existing acid grass	1 0.85 0.34
St Johns School, North playing field	GiGL_HAB_11894	(510525,191661)	1.00	2004			Create new/restore relict pond	1.00
St Johns School, East ponds (#2)	GiGL_HAB_11895	(510591,191503)	0.12	2004	Pond condition Poor	0.08	Create new/restore relict pond	0.12
Northwood FC	GiGL_HAB_12080	(509837,190325)	1.71	2004			Create new/restore relict wood	1.71
Frithwood School	GiGL_HAB_12095	(509685,191749)	0.70	2004			Create new/restore relict wood	0.70
Northwood Cemetery	GiGL_HAB_12302	(509699,190260)	6.43	2004			Create new/restore relict wood	6.41
Northwood Recreation Ground	GiGL_HAB_12303	(509736,190550)	1.91	2004			Create new/restore relict wood	1.90
Northwood Recreation Ground, Northwood Recreation Ground amenity area	GiGL_HAB_12304	(509910,190294)	7.76	2004			Create new/restore relict wood	7.74
St Helens School	GiGL_HAB_12305	(509470,191591)	7.42	2004			Create new/restore relict wood	7.40
Metropolital Line - Watford Branch, Northwood Hills to Northwood Tube	GiGL_HAB_12307	(509526,190864)	5.23	2004			Create new/restore relict wood	5.22
Metropolital Line - Watford Branch, Northwood Tube to north Hillingdon boundary	GiGL_HAB_12308	(509170,191768)	3.27	2004			Create new/restore relict wood	3.26
Northwood Comprehensive School & Sports Centre	GiGL_HAB_12319	(510487,190551)	5.99	2004			Create new/restore relict wood	5.97
Frithwood Park	GiGL_HAB_12320	(509568,191789)	1.07	2004			Create new/restore relict wood	1.07
Chestnut Avenue Allotments	GiGL_HAB_12363	(509707,190438)	0.93	2004			Create new/restore relict wood	0.93

6.0 Open Spaces

Open space information within the search area can be seen on the following pages.

The table can be cross-referenced with the Open Space Map.

This open space dataset is a combination of information collected during GLA surveys, information provided to GiGL by the London boroughs and data sourced through other means, e.g. volunteer surveys.

Note that GiGL does not currently hold open space data for all areas. Even where data is held, a lack of records in a defined geographical area does not necessarily mean that the open space features do not occur there – the area may simply not have been surveyed.

GiGL uses the following open space definition: undeveloped land which has an amenity value, or has potential for an amenity value. The value could be visual, derive from a site's historical or cultural interest or from the enjoyment of facilities which it provides. It includes both public and private spaces, but excludes private gardens.

6.1 Open Space Data

The dataset documents the primary and secondary uses of open space (divided according to broad land use categories) along with other information such as public accessibility, facilities, and special designations which apply to the site. For further details of open space typology and designation categories please also refer to the Supporting Information section of the Annex.

Site Name	Site ID	Grid Ref	Site Area (ha)	Open Space Typology			Public Open Space Awards and Designations	Public Access	Facilities
				Land use category	Primary use	Secondary uses			
Chestnut Avenue Allotments	OS_Hi_0055	TQ9704090446	0.93	Allotments, Community Gardens and City Farms	Allotments		Green Belt (100%)	Restricted	
Frithwood Park	OS_Hi_0120	TQ9567091787	1.07	Parks and Gardens	Park		Small Open Space (Frithwood Park)	Free	Dog litter bins/area Litter bins Play for under 7s Seats Tennis court
Frithwood School	OS_Hi_0121	TQ9679091751	0.70	Amenity	Educational			Restricted	
Haste Hill Golf Course	OS_Hi_0156	TQ9297090120	38.76	Outdoor Sports Facilities	Golf course		SINC (HiBI09 11%) Green Belt (100%)	Restricted	Car parking Golf course Information Litter bins Refreshments Waymarked walking route
Hogs Back open space	OS_Hi_0182	TQ1027190896	4.81	Amenity	Amenity green space		SINC (HiBI23 88%) Local Park and Open Space (Hogs Back Open Space) Green Flag Award (2016)	Free	Information
Metropolitan Line - Watford Branch	OS_Hi_0227	TQ9761090908	11.36	Green Corridors	Railway cutting		SINC (HiBI45 29%)	None	
Northwood Cemetery	OS_Hi_0250	TQ9687090252	6.43	Cemeteries and Churchyards	Cemetery/churchyard		Green Belt (100%) Green Flag Award (2016)		Information Litter bins Sculptures/monuments Seats
Northwood Comprehensive School & Sports Centre	OS_Hi_0251	TQ1050190543	5.99	Amenity	Educational			Restricted	Cricket pitch Tennis court
Northwood FC	OS_Hi_0253	TQ9823090317	1.71	Outdoor Sports Facilities	Playing fields		Green Belt (100%)	Restricted	All weather playing pitch Car parking Disabled facilities Floodlit playing pitch Full playing pitch Information Litter bins Natural playing pitch Refreshments Seats Toilets
Northwood Golf Course	OS_Hi_0254	TQ8863090744	46.22	Outdoor Sports Facilities	Golf course		SINC (HiBI09 18%) Green Belt (100%)	Restricted	Golf course Information Litter bins Refreshments Seats Toilets

Site Name	Site ID	Grid Ref	Site Area (ha)	Open Space Typology			Public Open Space Awards and Designations	Public Access	Facilities
				Land use category	Primary use	Secondary uses			
Northwood Recreation Ground	OS_Hi_0255	TQ9864090350	9.67	Outdoor Sports Facilities	Recreation ground	Park	Local Park and Open Space (Northwood Recreation Ground) Green Belt (100%) Green Flag Award (2016)	Free	Bowling green Cricket pitch Play for under 7s Seats Skateboard area Tennis court Waymarked walking route
St Helens School	OS_Hi_0336	TQ9478091585	7.42	Amenity	Educational		Conservation Area	Restricted	
St Johns School	OS_Hi_0337	TQ1052391412	12.69	Amenity	Educational	Nature reserve	SINC (HiBII24 19%) SINC (M134 9%) Green Belt (98%)	Restricted	Changing rooms Cricket pitch Information Nature trail Play for 7-13

7.0 Contacts

7.1 Borough Contacts

Further details of sites and species within the search area may be gathered from the following borough contacts:

London Borough of Hillingdon

Stuart Hunt
Green Spaces Team (4W/08)
Civic Centre
Uxbridge
Middlesex
UB8 1UW

Tel: 01895 250916
Email: shunt@hillingsdon.gov.uk

Harrow
HA1 2UY

Tel: 0208 736 6152
E-mail: denis.vickers@harrow.gov.uk

London Borough of Harrow

Denis Vickers
Biodiversity Officer
Placeshaping - Design & Conservation
PO Box 37
Civic Centre
Station Road

7.2 Further Contacts

The following contacts work closely with GiGL and are the best source for further advice or interpretation of the data provided by us. They are widely recognised in Greater London as the experts in their fields, and have provided the following information as the preferred method of contact.

Areas of expertise	SINCs, open space and habitat survey data advice
<i>Organisation</i>	GiGL – Greenspace Information for Greater London
<i>Email</i>	enquiries@gigl.org.uk
<i>Website</i>	www.gigl.org.uk

Areas of expertise	Black redstarts, birds, brown and green roofs
<i>Name</i>	Dusty Gedge
<i>Organisation</i>	Livingroofs.org
<i>Email</i>	dustygedge@yahoo.co.uk
<i>Website</i>	www.livingroofs.org

Areas of expertise	Bats
<i>Organisation</i>	London Bat Group
<i>Email</i>	enquiries@londonbats.org.uk
<i>Website</i>	www.londonbats.org.uk

Areas of expertise	Regional biodiversity action plans
<i>Organisation</i>	London Biodiversity Partnership
<i>Website</i>	www.lbp.org.uk

Areas of expertise	Area recorders for birds (Inner London, Kent, Surrey, Buckinghamshire, Middlesex, and Essex)
<i>Organisation</i>	London Natural History Society
<i>Website</i>	www.lnhs.org.uk

Areas of expertise	Plant galls
<i>Name</i>	Ken Hill
<i>Organisation</i>	London Natural History Society
<i>Email</i>	Ken@kenneth17.fsnet.co.uk
<i>Website</i>	www.lnhs.org.uk

Areas of expertise	Odonata - Dragonflies and damselflies
<i>Name</i>	Neil Anderson
<i>Organisation</i>	London Natural History Society
<i>Email</i>	neil@anders42.freemove.co.uk
<i>Website</i>	www.lnhs.org.uk

Areas of expertise	Invertebrates
<i>Name</i>	Colin W Plant
<i>Organisation</i>	London Natural History Society
<i>Email</i>	cpauk1@ntlworld.com
<i>Website</i>	www.lnhs.org.uk

Areas of expertise	Lichens and Fungi
<i>Name</i>	Ted Tuddenham
<i>Organisation</i>	London Natural History Society
<i>Email</i>	mycorec@blueyonder.co.uk
<i>Website</i>	www.lnhs.org.uk

Areas of expertise	Butterflies
<i>Name</i>	Leslie Williams
<i>Organisation</i>	London Natural History Society
<i>Email</i>	leslie.williams1597@btinternet.com
<i>Website</i>	www.lnhs.org.uk

Areas of expertise	Vascular plants
<i>Name</i>	Mark Spencer
<i>Organisation</i>	London Natural History Society
<i>Email</i>	Lnhs_plant_recorder@hotmail.co.uk
<i>Website</i>	www.lnhs.org.uk

Areas of expertise	General conservation advice
<i>Name</i>	Conservation Programmes Manager
<i>Organisation</i>	London Wildlife Trust
<i>Email</i>	enquiries@wildlondon.org.uk
<i>Website</i>	www.wildlondon.org.uk

Areas of expertise	Statutory site advice
<i>Name</i>	Conservation Officer
<i>Organisation</i>	Natural England
<i>Email</i>	london@naturalengland.org.uk
<i>Website</i>	www.naturalengland.org.uk

Areas of expertise	London Invasive Species Initiative
<i>Name</i>	Joanna Heisse
<i>Organisation</i>	Environment Agency
<i>Email</i>	Joanna.heisse@environment-agency.gov.uk
<i>Website</i>	www.environment-agency.gov.uk

Areas of expertise	Geological Designations
<i>Organisation</i>	London Geodiversity Partnership
<i>Email</i>	info@londongeopartnership.org.uk
<i>Website</i>	www.londongeopartnership.org.uk

Annex A - MAPS

Statutory Sites Map

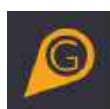
SINCs Map

RIGS or LIGS Map

Survey Parcels Map

Open Space Map

Green Belt and Metropolitan Open Land Map



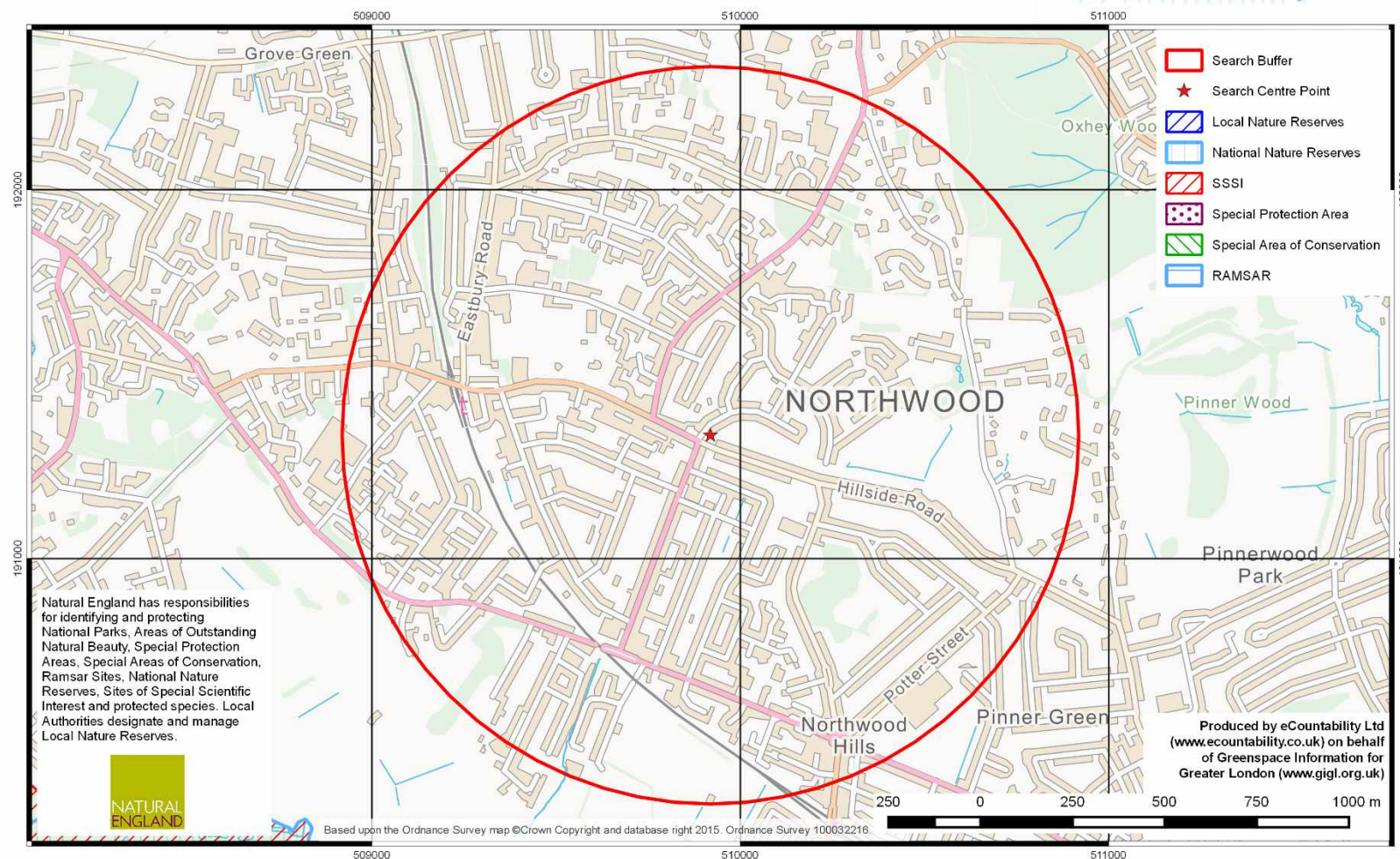
Statutory Site Designations

Ecological Data Search for CSA Environmental
2 Gatehill Road, Northwood, 16 July 2020



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

eCountability



Sites of Importance for Nature Conservation

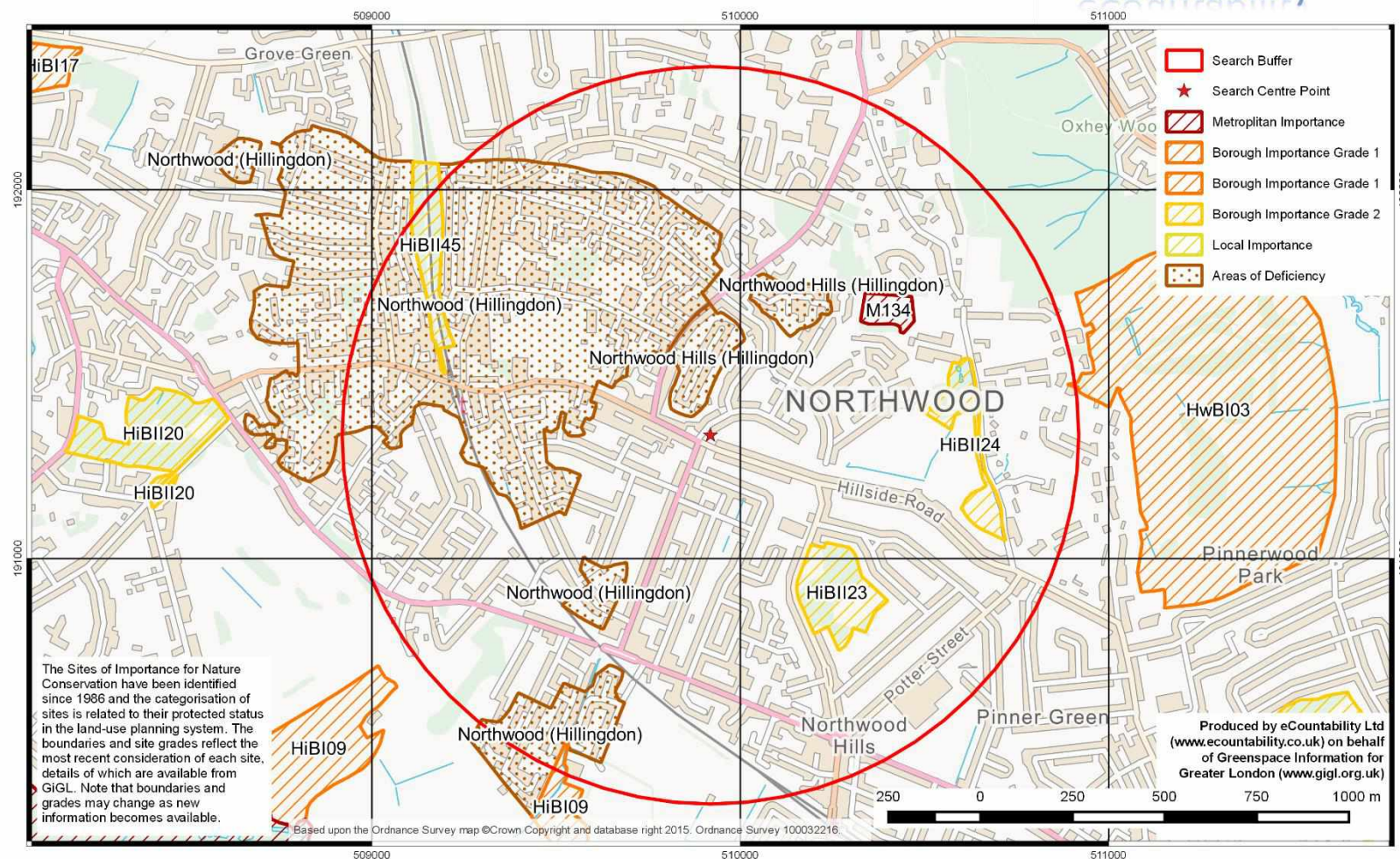
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2 Gatehill Road, Northwood, 16 July 2020



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Important Geological/Geomorphological Sites

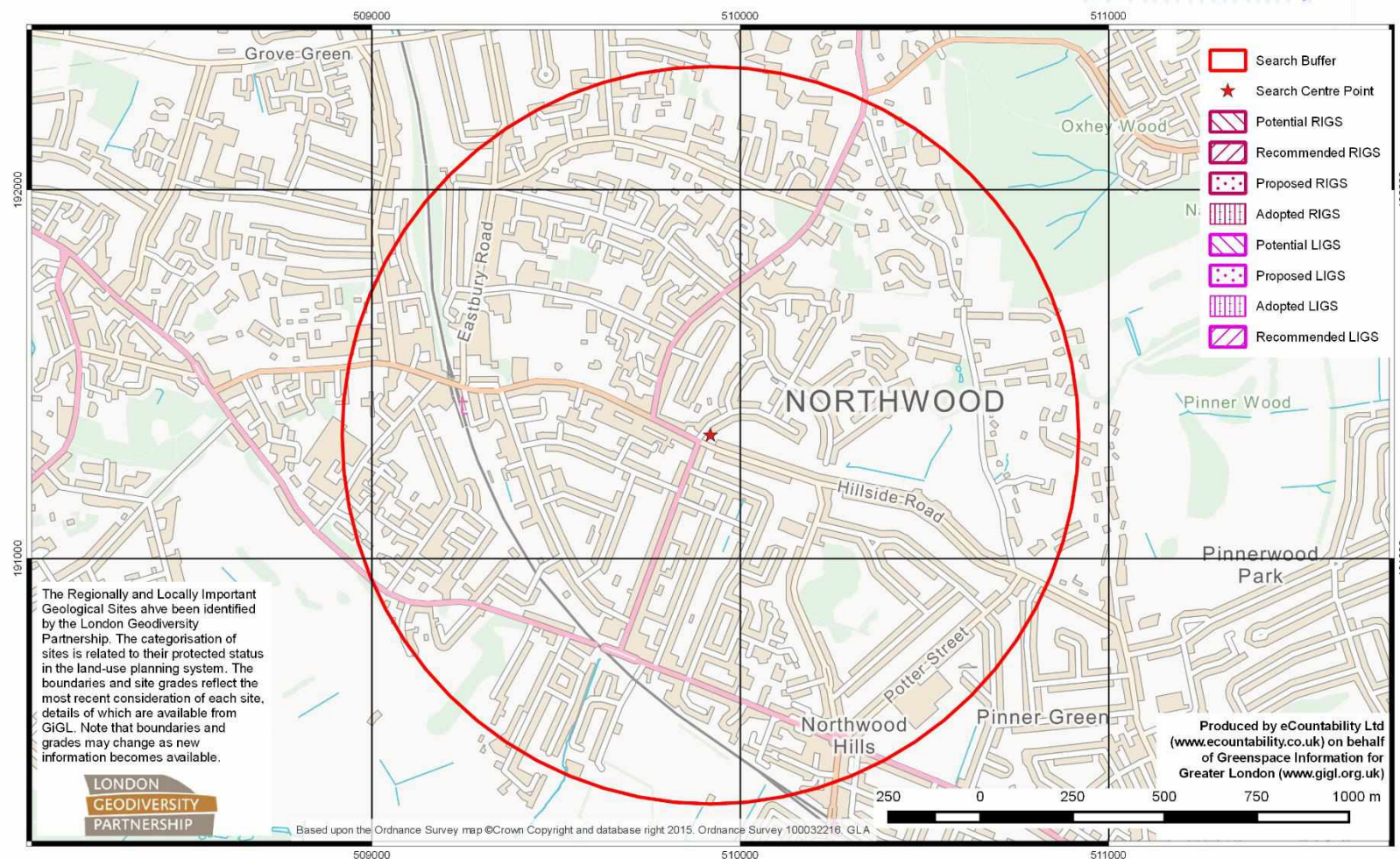
Ecological Data Search for CSA Environmental

2 Gatehill Road, Northwood, 16 July 2020



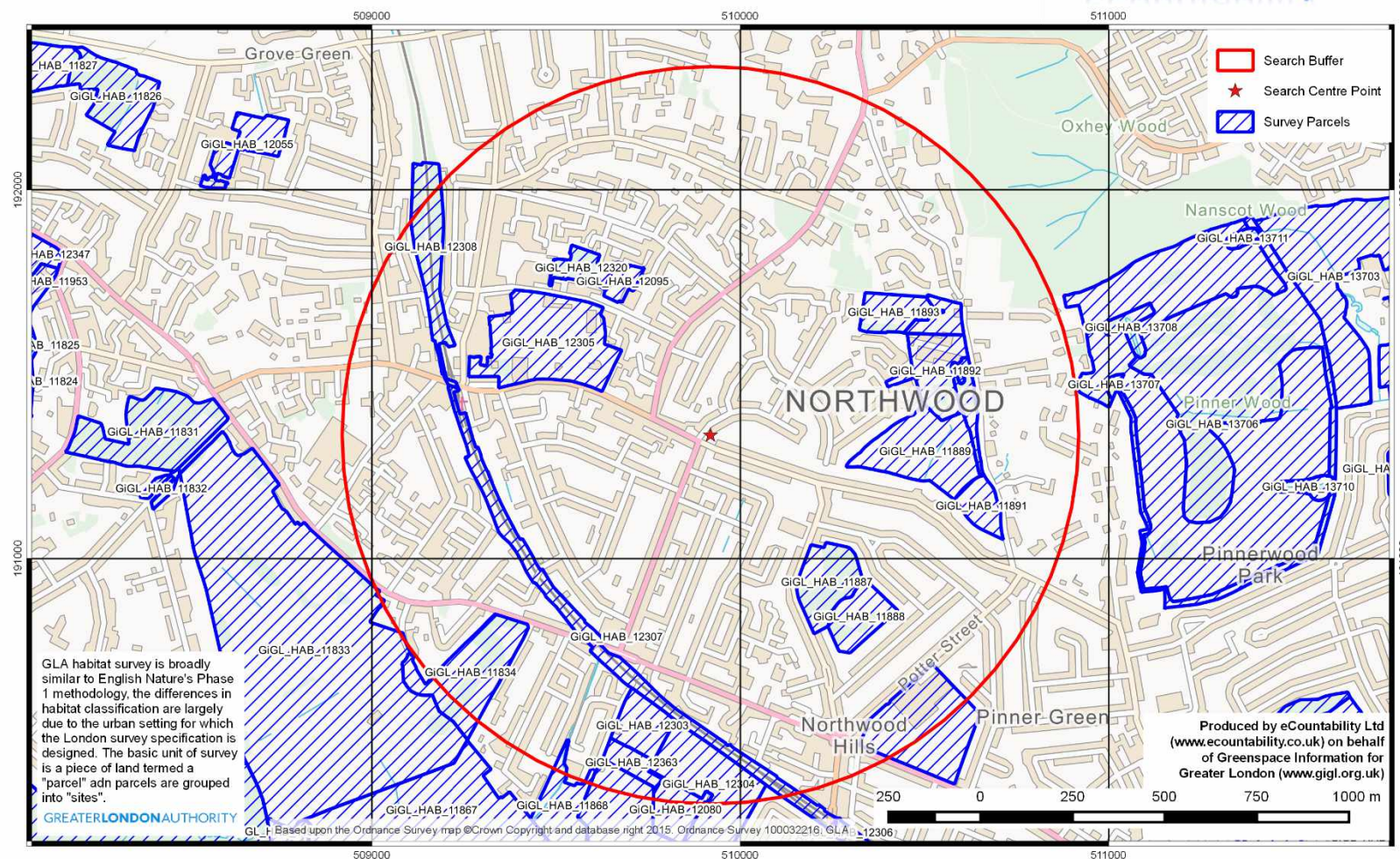
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Habitat Survey Parcels

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2 Gatehill Road, Northwood, 16 July 2020



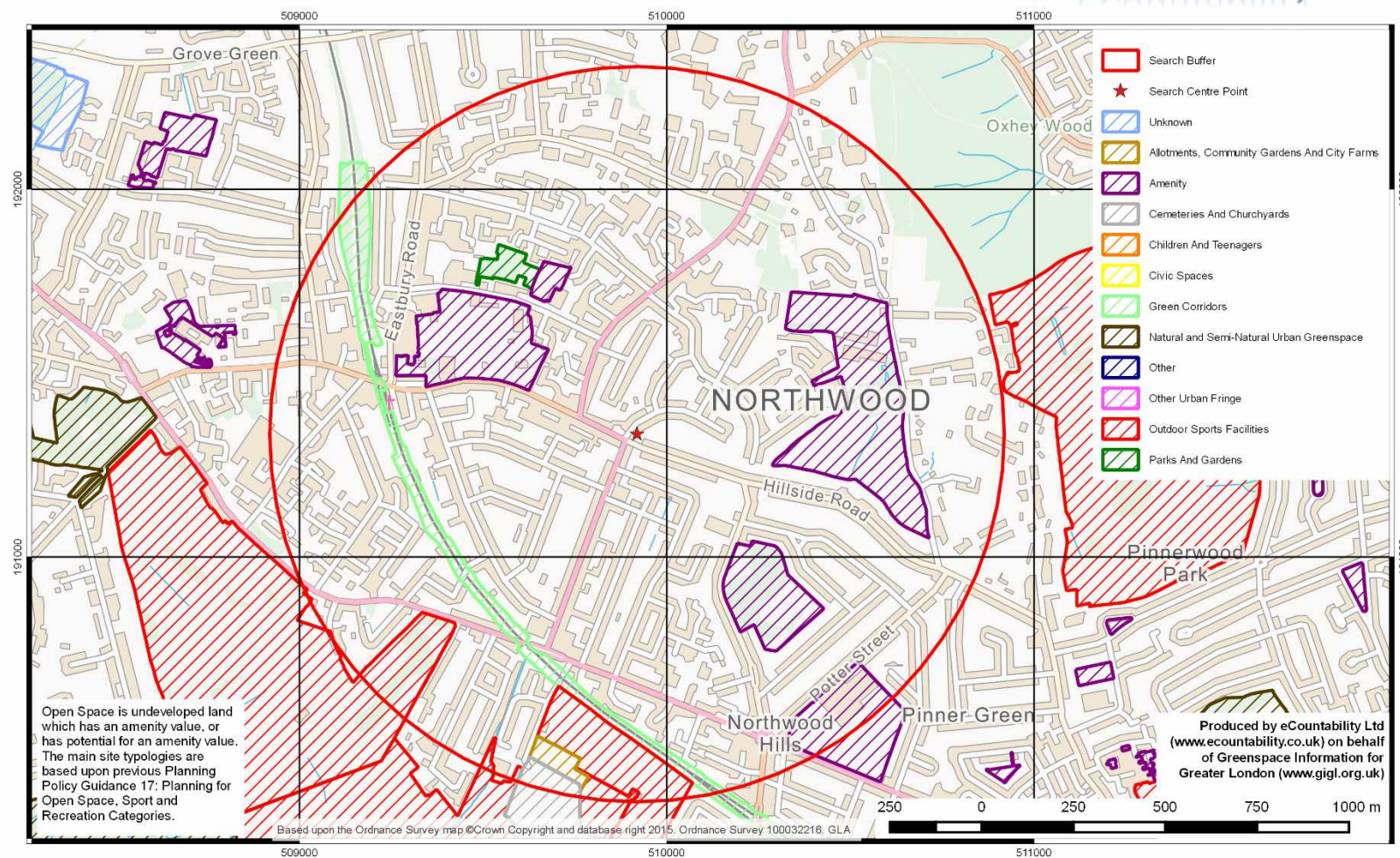
Open Spaces

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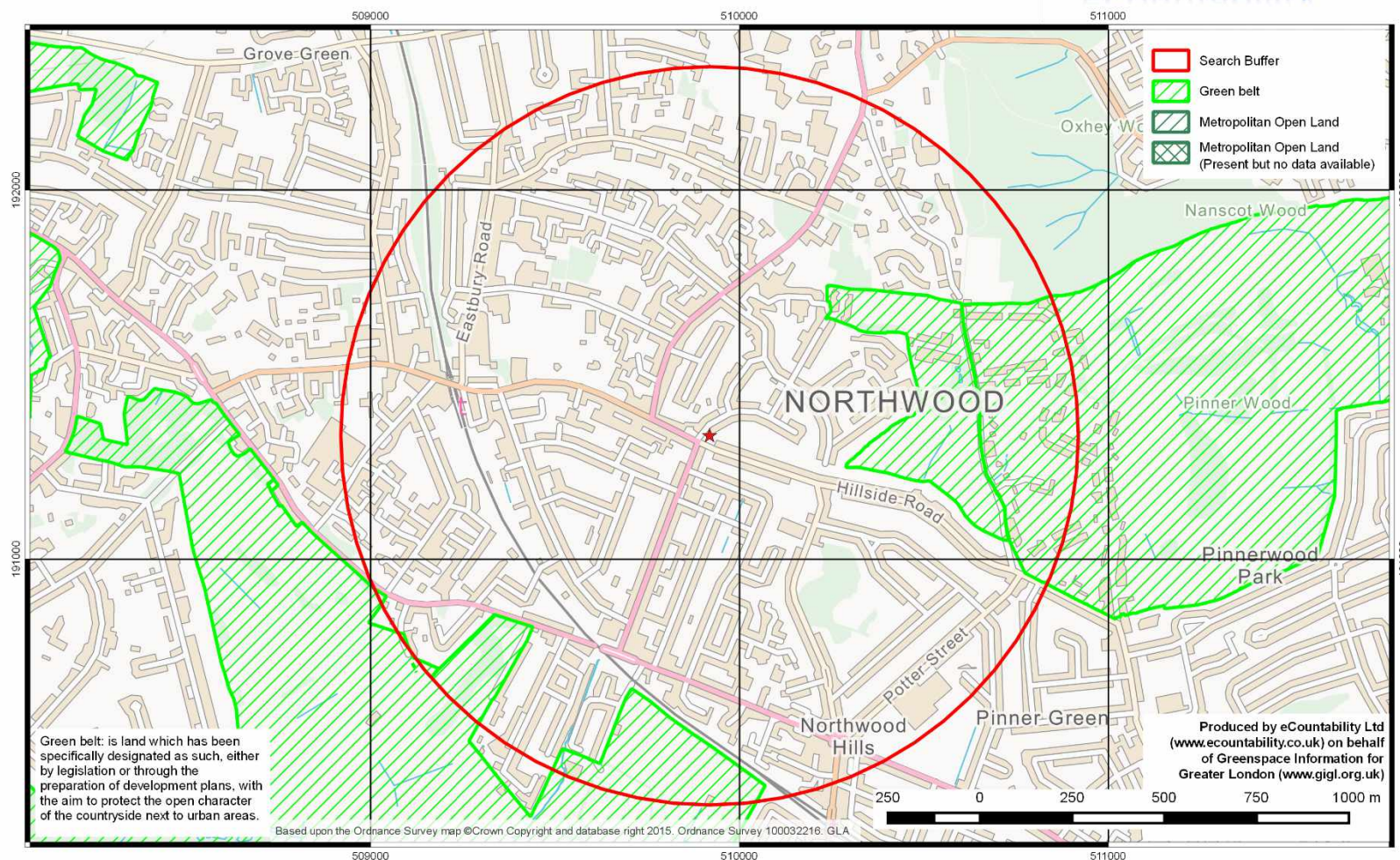
Green Belt

Ecological Data Search for CSA Environmental
2 Gatehill Road, Northwood, 16 July 2020



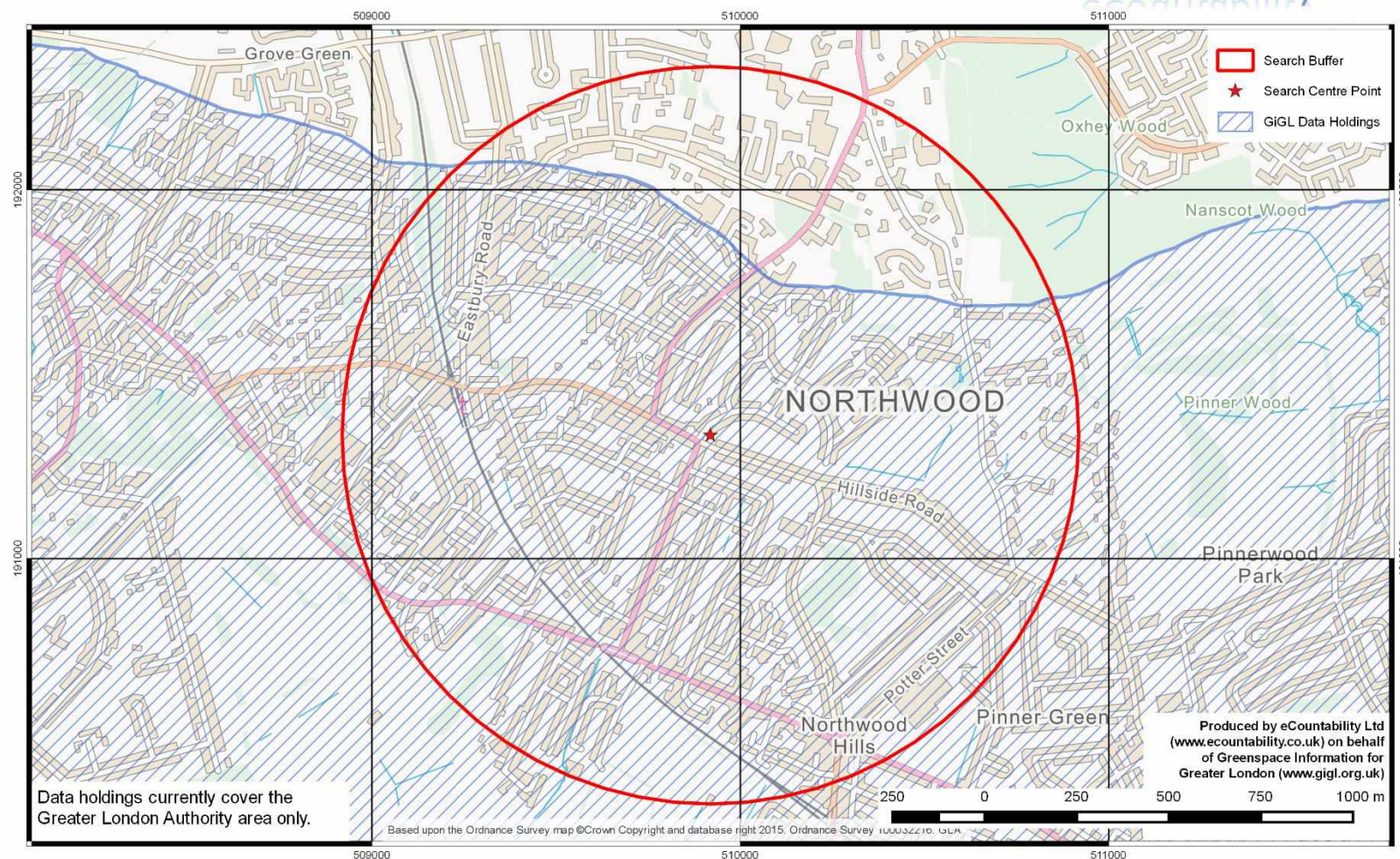
GiGL Greenspace Information for Greater London CIC
the capital's environmental records centre

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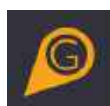
GiGL Data Holdings Check

Ecological Data Search for CSA Environmental
2 Gatehill Road, Northwood, 16 July 2020



Annex B - Supporting Information

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Statutory Site Designations

Local Nature Reserve (LNR)

Land owned, leased or managed by Local Authorities and designated under the National Parks and Access to the Countryside Act. A site of some nature conservation value managed for educational objectives — no need for SSSI status. In some cases it is managed by a non-statutory body (e.g. London Wildlife Trust). Local Authorities have the power to pass bylaws controlling (e.g.) access, special protection measures.

Site of Special Scientific Interest (SSSI)

Area notified under the Wildlife and Countryside Act, 1981, by English Nature, the Countryside Council for Wales or Scottish Heritage as being of special interest for nature conservation. Consultation and some form of agreement with the national statutory conservation agency is mandatory before any listed, potentially damaging development, change in land use, etc. can be carried out. SSSI notification forms the statutory bedrock for site protection, although experience has shown that even SSSIs are not sacrosanct.

Biological SSSIs form a national network of wildlife sites in which each site is a distinct discrete link. Sites are selected in such a way that the protection of each site, and hence the network, aims to conserve the minimum area of wildlife habitat necessary to maintain the natural diversity and distribution of Britain's native flora and fauna and the communities they comprise. Each site, therefore, is of national significance for its nature conservation value. The vast majority of SSSIs, and indeed most areas of semi-natural habitat, cannot be created within human time scales and are therefore considered irreplaceable.

Geological SSSIs—more correctly termed Earth Science SSSIs—are the best sites chosen for their research value, the criterion being that they are of national or international importance. Earth Science conservation is concerned with the maintenance of our geological and geomorphological heritage.

National Nature Reserve (NNR)

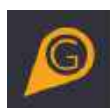
Statutory reserve established for the nation under the Wildlife and Countryside Act, 1981. NNRs may be owned by a relevant national body (e.g. English Nature in England) or by established agreement; a few are owned and managed by non-statutory bodies. NNRs cover a selection of the most important sites for nature conservation in the UK.

Special Area of Conservation (SAC) and Special Protection Area (SPA)

SACs and SPAs are areas designated under European law and are the most important sites for wildlife in the UK. SACs are designated under the European Habitats Directive (Council Directive 92/43/EEC) and SPAs under the European Birds Directive (Council Directive 79/409/EEC). Both the Habitats and Birds Directive provide for the creation of a network of protected wildlife areas across the EU, to be known as “Natura 2000”. The designations aim to conserve important or threatened species and habitats and provide them with increased protection and management.

Ramsar sites

Ramsar sites are wetlands of international importance designated under the Ramsar Convention. The initial emphasis was on selecting sites of importance to waterbirds within the UK, and consequently many Ramsar sites are also Special Protection Areas (SPAs) classified under the Birds Directive. Non-bird features are now increasingly taken into account, both in the selection of new sites and when reviewing existing sites.



SINC Designations

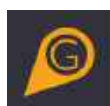
Sites of Importance for Nature Conservation

1 The different kinds of sites and areas

- 1.1 There are three kinds of site, which are chosen on the basis of their importance to a particular defined geographic area. This use of search areas is an attempt, not only to protect the best sites in London, but also to provide each part of London with a nearby site, so that people are able to have access to enjoy nature.

Sites of Metropolitan Importance

- 1.2 Sites of Metropolitan Importance for Nature Conservation are those sites which contain the best examples of London's habitats, sites which contain particularly rare species, rare assemblages of species or important populations of species, or sites which are of particular significance within otherwise heavily built-up areas of London.
- 1.3 They are of the highest priority for protection. The identification and protection of Metropolitan Sites is necessary, not only to support a significant proportion of London's wildlife, but also to provide opportunities for people to have contact with the natural environment.
 - 1.3.1 The best examples of London's habitats include the main variants of each major habitat type, for example hornbeam woodland, wet heathland, or chalk downland. Habitats typical of urban areas are also included, e.g. various types of abandoned land colonised by nature ('wasteland' or 'unofficial countryside'). Those habitats which are particularly rare in London may have all or most of their examples selected as Metropolitan Sites.
 - 1.3.2 Sites of Metropolitan Importance include not only the best examples of each habitat type, but also areas which are outstanding because of their assemblage of habitats, for example the Crane corridor, which contains the River Crane, reservoirs, pasture, woodland and heathland.
 - 1.3.3 Rare species include those that are nationally scarce or rare (including Red Data Book species) and species which are rare in London.
 - 1.3.4 A small number of sites are selected which are of particular significance within heavily built up areas of London. Although these are of lesser intrinsic quality than those sites selected as the best examples of habitats on a London-wide basis they are outstanding oases and provide the opportunity for enjoyment of nature in extensive built environments. Examples include St James's Park, Nunhead Cemetery, Camley Street Natural Park and Sydenham Hill Woods. In some cases (e.g. inner London parks) this is the primary reason for their selection. For sites of higher intrinsic interest it may only be a contributory factor. Only those sites that provide a significant contribution to the ecology of an area are identified.
 - 1.3.5 A small number of sites are selected which are of particular significance within heavily built up areas of London. Although these are of lesser intrinsic quality than those sites selected as the best examples of habitats on a Londonwide basis they are outstanding oases and provide the opportunity for enjoyment of nature in extensive built environments. Examples include St James's Park, Nunhead Cemetery, Camley Street Natural Park and Sydenham Hill Woods. In some cases (e.g. inner London parks) this is the



primary reason for their selection. For sites of higher intrinsic interest it may only be a contributory factor. Only those sites that provide a significant contribution to the ecology of an area are identified.

- 1.4 Should one of these sites be lost or damaged, something would be lost which exists in a very few other places in London. Management of these sites should as a first priority seek to maintain and enhance their interest, but use by the public for education and passive recreation should be encouraged unless these are inconsistent with nature conservation.

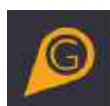
Sites of Borough Importance

- 1.5 These are sites which are important on a borough perspective in the same way as the Metropolitan sites are important to the whole of London. Although sites of similar quality may be found elsewhere in London, damage to these sites would mean a significant loss to the borough. As with Metropolitan sites, while protection is important, management of Borough sites should usually allow and encourage their enjoyment by people and their use for education.
- 1.6 In defining Sites of Borough Importance, the search is not confined rigidly to borough boundaries; these are used for convenience of defining areas substantially smaller than the whole of Greater London, and the needs of neighbouring boroughs should be taken into account. In the same way as for Sites of Metropolitan Importance, parts of some boroughs are more heavily built-up and some borough sites are chosen there as oases providing the opportunity for enjoyment of nature in extensive built environments.
- 1.7 Planning Policy Statement on Biodiversity and Geological Conservation (2005), in paragraph 5 (i), states that local development frameworks should indicate the location of designate sites for biodiversity and geodiversity, including locally designated sites..
- 1.8 Since essentially a comparison within a given borough is made when choosing Sites of Borough Importance, there is considerable variation in quality between those for different boroughs; for example, those designated in Barnet will frequently be of higher intrinsic quality than those in Hammersmith and Fulham, a borough comparatively deficient in wildlife habitat. Only those sites that provide a significant contribution to the ecology of an area are identified.

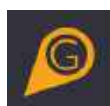
Sites of Local Importance

- 1.9 A Site of Local Importance is one which is, or may be, of particular value to people nearby (such as residents or schools). These sites may already be used for nature study or be run by management committees mainly composed of local people. Where a Site of Metropolitan or Borough Importance may be so enjoyed it acts as a Local site, but further sites are given this designation in recognition of their role. This local importance means that these sites are also deserving protection in planning.
- 1.12 Local sites are particularly important in areas otherwise deficient in nearby wildlife sites. To aid the choice of these further local sites, Areas of Deficiency (see below) are identified. Further Local sites are chosen as the best available to alleviate this deficiency; such sites need not lie in the Area of Deficiency, but should be as near to it as possible. Where no such sites are available, opportunities should be taken to provide them by habitat enhancement or creation, by negotiating access and management agreements, or by direct acquisition. Only those sites that provide a significant contribution to the ecology of an area are identified.

Areas of Deficiency



Areas of Deficiency are defined as built-up areas more than one kilometre actual walking distance from an accessible Metropolitan or Borough site. These aid the choice of Sites of Local Importance (see above).



Geological Designations

Regionally Important Geological/geomorphological Sites (RIGS) and Locally Important Geological Sites (LIGS)

Government guidance uses the term *Local Sites* for non-statutory geological sites, as distinct from the Sites of Special Scientific Interest [SSSIs] which are protected by government statute.

- In England they are often called *Local Geological Sites*.
- In Scotland they are often called *Local Geodiversity Sites*.
- In Wales they are called *Regionally Important Geodiversity Sites*.

NOTE: The term *Regionally Important Geological/geomorphological Sites (RIGS)*, which has been in usage now for many years and is still used to describe Local Geological/geodiversity Sites, should be regarded as synonymous to Local Geological Sites. In London, the term RIGS has been retained to cover those sites that are worthy of protection for their geodiversity importance at the London-wide level.

RIGS were established in 1990 by the Nature Conservancy Council (NCC) (predecessor of English Nature and Natural England). They have support from Natural England and other national agencies, and are increasingly recognised by local planning authorities. To date RIG Sites have been selected by voluntary groups, Local geoconservation groups (lately known as RIGS groups), which are generally formed by county or by unitary authority area in England. There are more than 50 local groups in the UK, though not all are active. There are 3 active groups in London, South London RIGS, North West London RIGS and GeoEssex, but to date no RIGS have been formally designated in Greater London.

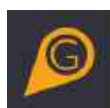
RIGS are currently the most important designated places for geology and geomorphology outside statutorily protected land such as SSSIs. The designation of RIGS is one way of recognising and protecting important geodiversity and landscape features for future generations to enjoy. RIGS are equivalent to local Wildlife Sites and other non-statutory wildlife designations. They can be listed in local authorities' development plans and shown on "alert maps". RIGS can be protected through the planning system if a RIGS group recommends sites to the local planning authority.

Guidance on RIGS is available on the GeoconservationUK website (www.geoconservationuk.org.uk). They are important as an educational, historical and recreational resource. Sites are selected according to:

- the value for educational purposes in life-long learning
- the value for study both by professional and amateur earth scientists
- the historical value in terms of important advances in Earth science knowledge, events or human exploitation
- the aesthetic value in the landscape, particularly in relation to promoting public awareness and appreciation of geodiversity.

RIGS can be viewed as equivalent to Sites of Metropolitan Importance for Nature Conservation (SMIs), which include land of strategic importance for nature conservation and biodiversity across London. They are proposed by the Boroughs in Development plan documents and are confirmed if there is no objection from the Mayor to the proposal. These sites should be protected as set out in Policy 3D.16 of the London Plan.

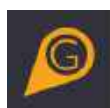
The London boroughs may also designate certain areas as being of local conservation (including geological) interest (LIGS). The criteria for inclusion, and the level of protection provided, should reflect the local level of importance in the hierarchy of sites.



LIGS are equivalent to Sites of Borough or Local Importance for nature conservation, which are accorded a level of protection commensurate with their borough or local significance. Local site networks provide a comprehensive rather than a representative suite of sites. Defra have published detailed guidance on identification, selection and management of local sites (DEFRA, 2006).

LIGS are designated in the Development Plan Documents prepared under the Town and Country Planning system by the London boroughs and are a material consideration when planning applications are being determined.

The London Plan Implementation Report *London's foundations* (March 2009) describes the geodiversity audit of 36 sites (including the 7 London SSSIs designated for their geodiversity importance). 14 sites were recommended for designation as RIGS and 15 as LIGS. Since publication of *London's foundations*, the London Geodiversity Partnership has published the London Geodiversity Action Plan, which includes a programme of inspection and audit of these sites and other potential sites (98 listed in *London's foundations*) to manage and conserve London's geodiversity.

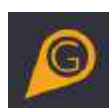


Species Protections

GiGL has used the conservations designations list created and maintained by the Joint Nature Conservation Committee (JNCC) and used the following designations in the data search report.

International and national legislation

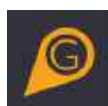
International Legislation	
Birds Directive Annex 1	Birds which are the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. As appropriate, Special Protection Areas to be established to assist conservation measures. Note that the contents of this annex have been updated in April 2003 following the Treaty of Accession.
Habitats Directive Annex 2 - priority species	Species which are endangered, the conservation of which the Community has a particular responsibility in view of the proportion of their natural range which falls within the territory of the Community. They require the designation of special areas of conservation.
Habitats Directive Annex 2 - non-priority species	Animal and plant species of Community interest (i.e. endangered, vulnerable, rare or endemic in the European Community) whose conservation requires the designation of special areas of conservation. Note that the contents of this annex have been updated in April 2003 following the Treaty of Accession.
Habitats Directive Annex 4	Animal and plant species of Community interest (i.e. endangered, vulnerable, rare or endemic in the European Community) in need of strict protection. They are protected from killing, disturbance or the destruction of them or their habitat. Note that the contents of this annex have been updated in April 2003 following the Treaty of Accession.
National Legislation	
The Conservation (Natural Habitats, &c.) Regulations 2010 (Schedule 2)	Schedule 2- European protected species of animals.
The Conservation (Natural Habitats, &c.) Regulations 2010 (Schedule 5)	Schedule 5- European protected species of plants.
Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England	Species "of principal importance for the purpose of conserving biodiversity" covered under section 41 (England) of the NERC Act (2006) and therefore need to be taken into consideration by a public body when performing any of its functions with a view to conserving biodiversity.
Wildlife and Countryside Act 1981 (Schedule 1 Part 1)	Birds which are protected by special penalties at all times.
Wildlife and Countryside Act 1981 (Schedule 5 Section 9.1 (killing/injuring))	Animals which are protected from intentional killing or injuring.
Wildlife and Countryside Act 1981 (Schedule 5 Section 9.1 (taking))	Section 9.1 Animals which are protected from taking.



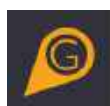
Wildlife and Countryside Act 1981 (Schedule 5 Section 9.4a)	Section 9.4 Animals which are protected from intentional damage or destruction to any structure or place used for shelter or protection.
Wildlife and Countryside Act 1981 (Schedule 5 Section 9.4b)	Section 9.4 Animals which are protected from intentional disturbance while occupying a structure or place used for shelter or protection.
Wildlife and Countryside Act 1981 (Schedule 5)	Cetacean/basking shark that are not allowed to be intentionally or recklessly disturbed.
Wildlife and Countryside Act 1981 (Schedule 8)	Plants which are protected from intentional picking, uprooting or destruction (Section 13 1a); selling, offering for sale, possessing or transporting for the purpose of sale (live or dead, part or derivative) (Section 13 2a); advertising (any of these) for buying or selling (Section 13 2b).
Protection of Badgers Act (1992)	The Protection of Badgers Act 1992 protects badgers from taking, injuring, killing, cruel treatment, selling, possessing, marking and having their setts interfered with, subject to exceptions.

Notable and other species designations

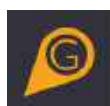
Red Data List	
Bird Population Status - red	Red list species are those that are Globally Threatened according to IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and not shown a substantial recent recovery.
IUCN (2001) - Critically endangered	A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered (see Section V), and it is therefore considered to be facing an extremely high risk of extinction in the wild.
IUCN (2001) - Data Deficient	A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that threatened classification is appropriate. It is important to make positive use of whatever data are available. In many cases great care should be exercised in choosing between DD and a threatened status. If the range of a taxon is suspected to be relatively circumscribed, and a considerable period of time has elapsed since the last record of the taxon, threatened status may well be justified.
IUCN (2001) - Endangered	A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered (see Section V), and it is therefore considered to be facing a very high risk of extinction in the wild.
IUCN (2001) - Extinct	A taxon is Extinct when there is no reasonable doubt that the last individual has died. A taxon is presumed Extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.



IUCN (2001) - Extinct in the wild	A taxon is Extinct in the wild in Great Britain when it is known to survive only in cultivation, in captivity or as a naturalised population (or populations) well outside the past range. A taxon is presumed extinct in the wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual) throughout its range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.
IUCN (2001) - Regionally Extinct	Category for a taxon when there is no reasonable doubt that the last individual potentially capable of reproduction within the region has died or has disappeared from the wild in the region, or when, if it is a former visiting taxon, the last individual has died or disappeared in the wild from the region. The setting of any time limit for listing under RE is left to the discretion of the regional Red List authority, but should not normally pre-date 1500 AD.
IUCN (2001) - Lower risk - near threatened	A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.
IUCN (2001) - Vulnerable	A taxon is Vulnerable when the best available evidence indicates that it meets any of the criteria A to E for Vulnerable (see Section V), and it is therefore considered to be facing a high risk of extinction in the wild.
Other rare/scarce	
Nationally rare marine species	Species which occur in eight or fewer 10km X 10km grid squares containing sea (or water of marine saline influence) within the three mile territorial limit.
Nationally rare	Occurring in 15 or fewer hectads in Great Britain. Excludes rare species qualifying under the main IUCN criteria.
Nationally scarce marine species	Species which occur in nine to 55 10km X 10km grid squares containing sea (or water of marine saline influence) within the three mile territorial limit.
Nationally Notable A	Taxa which do not fall within RDB categories but which are none-the-less uncommon in Great Britain and thought to occur in 30 or fewer 10km squares of the National Grid or, for less well-recorded groups, within seven or fewer vice-counties. Superseded by Nationally Scarce, and therefore no longer in use.
Nationally Notable B	Taxa which do not fall within RDB categories but which are none-the-less uncommon in Great Britain and thought to occur in between 31 and 100 10km squares of the National Grid or, for less-well recorded groups between eight and twenty vice-counties. Superseded by Nationally Scarce, and therefore no longer in use.
Nationally scarce	Occurring in 16-100 hectads in Great Britain.
Nationally Notable	Species which are estimated to occur within the range of 16 to 100 10km squares. (subdivision into Notable A and Notable B is not always possible because there may be insufficient information available). Superseded by Nationally Scarce, and therefore no longer in use.
UK BAP	
UK Biodiversity Action Plan priority species	The UK List of Priority Species and Habitats contains 1150 species and 65 habitats that have been listed as priorities for conservation action under the UK Biodiversity Action Plan (UK BAP).
Local List	



London Species of Conservation Concern	London Biodiversity Partnership listed some 300 species of conservation interest occurring in London.
London BAP Priority species	See below.



London Biodiversity Action Plan Species

Rationale for selecting priority species for action

1. Background

The *Greater London Authority Act 1999* requires the elected Mayor to produce a Spatial Development Strategy for London, called the London Plan. The London Plan is the overall strategic plan for London, and it sets out a fully integrated economic, environmental, transport and social framework for the development of the capital to 2031. It forms part of the development plan for Greater London. London boroughs' local plans need to be in general conformity with the London Plan, and its policies guide decisions on planning applications by councils and the Mayor. From 22 July 2011 this replaces the London Plan (consolidated with alterations since 2004 which was published in February 2008).

The London Plan includes an important policy (7.19) Biodiversity and Access to Nature, which links to policies and proposals on approaches to strategic planning in the Mayor's Biodiversity Strategy¹. Policy 7.19 contains the following statement;

The Mayor's Biodiversity Strategy² sets out criteria and procedures for identifying land of importance for London's biodiversity for protection in LDFs and identifying areas of deficiency in access to nature. Protecting the sites at all levels, serves to protect the significant areas of Biodiversity Action Plan (BAP) priority habitat in London and most priority species. However, protection of biodiversity outside designated sites will also be needed. The Mayor and the London Biodiversity Partnership have identified targets in Table 7.3 for the re-creation and restoration of priority habitats, as recommended in PPS 9: Biodiversity and Geological Conservation³.

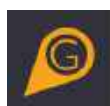
This policy is employed by the Mayor of London when considering those larger planning applications referred to him for direction under the *Town and Country Planning (Mayor of London) Order 2000*. Also the London Unitary Development Plans and, increasingly with time, the new Local Development Frameworks of the London Boroughs have to be in general conformity with the London Plan. It is through these local policies that most protection of priority species will occur. The planning protection for priority species should be equivalent to that applying to statutory protected species, although of course development planning can only provide protection from planning-related activities.

The London Biodiversity Partnership (LBP) published its original Audit of habitats and species in 2000. This lists all habitats of interest in London, as these relate to the UK BAP. The Audit also lists some 300 species of conservation interest occurring in London. All of these could not practically be considered as priorities for conservation action in the London BAP. Importantly, the LBP has adopted a practical approach to species conservation, whereby action for species should be considered and incorporated within the action proposed for their relevant habitats whenever possible. Species Action Plans have been produced only for prioritised species that are not so conveniently habitat-specific.

¹ *Connecting with London's nature, The Mayor's Biodiversity Strategy*, GLA July 2002

² *Mayor of London. The Mayor's Biodiversity Strategy- connecting with Nature. GLA 2005*

³ *ODPM PPS9. Biodiversity and geological conservation. 2005*



2. The evaluation process

2.2 Priority Species in London

From the list of Species of Conservation Concern in Greater London, our Priority BAP Species have been identified.

Criteria for selection of UK BAP Priority Species are as follows:

- Species that are globally threatened;
- Species that are rapidly declining in the UK, ie. by more than 50% in the last 25 years.

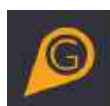
In accordance with national guidance, London BAP Priority Species must include;

- All UK BAP Priority Species with native or long-established naturalised populations in Greater London.

Further species have been selected using the following criteria;

- Species for which Species Action Plans are currently being implemented in the London BAP;
- Nationally threatened (Red Data listed) species with native or long-established naturalised populations in Greater London;
- UK SCC and declining Nationally Scarce species with significant⁴ native or long-established naturalised populations within Greater London, (ie. for which a regional responsibility for conservation may be clearly demonstrated).
- Species with native or long-established naturalised populations that are known to have undergone a recent significant decline in Greater London, or for which Greater London holds the majority of the known UK population.

⁴ for example: the only population within its 10km grid square; a population at the edge of a declining species' UK range; a constituent of an isolated UK population; an exceptionally strong core area population



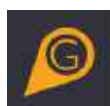
Confidential Records

GiGL holds some species records that are confidential. The fundamental principle is of making available all records, no matter how sensitive, with the appropriate interpretation. However, access to records will be restricted where general availability could pose a real threat to species or habitats, or would compromise the supply of data.

Data supplied in the search reports will be included at the resolution defined either by GiGL Records Advisory Group and / or by the data owner/originator.

The following is the list of species and groups that are treated as confidential.

Common Name	Scientific Name	Additional comments
Badger	<i>Meles meles</i>	All records
Adder	<i>Vipera berus</i>	All records
Garganey	<i>Anas querquedula</i>	Records from April -July only
Pochard	<i>Aythya ferina</i>	Records from April -July only
Quail	<i>Coturnix coturnix</i>	All records
Red-necked Grebe	<i>Podiceps grisegena</i>	Records from April -July only
Black-necked Grebe	<i>Podiceps nigricollis</i>	Records from April -July only
Little Egret	<i>Egretta garzetta</i>	Records from April -July only
Honey Buzzard	<i>Pernis apivorus</i>	Records from April -July only
Red Kite	<i>Milvus milvus</i>	Records from April -July only
Marsh Harrier	<i>Circus aeruginosus</i>	Records from April -July only
Goshawk	<i>Accipiter gentilis</i>	All records
Common Buzzard	<i>Buteo buteo</i>	Records from April -July only
Hobby	<i>Falco subbuteo</i>	All records
Peregrine Falcon	<i>Falco peregrinus</i>	All records
Avocet	<i>Recurvirostra avosetta</i>	Records from April -July only
Little Ringed Plover	<i>Charadrius dubius</i>	Records from April -July only
Ruff	<i>Philomachus pugnax</i>	Records from April -July only
Common Snipe	<i>Gallinago gallinago</i>	Records from April -July only
Turtle Dove	<i>Streptopelia turtur</i>	Records from April -July only
Barn Owl	<i>Tyto alba</i>	All records
Long-eared Owl	<i>Asio otus</i>	All records
Short-eared Owl	<i>Asio flammeus</i>	Records from April -July only
Nightjar	<i>Caprimulgus europaeus</i>	All records
Woodlark	<i>Lullula arborea</i>	All records
Tree Pipit	<i>Anthus trivialis</i>	Records from April-July only
Black Redstart	<i>Phoenicurus ochruros</i>	Records from April -July only
Cetti's Warbler	<i>Cettia cetti</i>	All records
Marsh Warbler	<i>Acrocephalus palustris</i>	All records
Dartford Warbler	<i>Sylvia undata</i>	All records
Firecrest	<i>Regulus ignicapilla</i>	Records from April -July only
Bearded Tit	<i>Panurus biarmicus</i>	All records
Willow Tit	<i>Poecile montanus</i>	All records
Marsh Tit	<i>Poecile palustris</i>	Records from April -July only
Golden Oriole	<i>Oriolus oriolus</i>	All records
Hawfinch	<i>Coccothraustes coccothraustes</i>	All records
Corn Bunting	<i>Miliaria calandra</i>	All records
Lesser-spotted Woodpecker	<i>Dendrocopus minor</i>	Records from April -July only
Lizard orchid	<i>Himantoglossum hircinum</i>	All records
Cannabis	<i>Cannabis sativa</i>	All records



London Invasive Species Initiative overview

The London Invasive Species Initiative (LISI)

The London Invasive Species Initiative encourages better co-ordination and partnership working to prevent, reduce and eliminate the impacts caused by invasive non-native species across the city. It is a sub-group of the London Biodiversity Partnership and has a wide membership, spanning several sectors and organisations.

LISI sub-group

Invasive non-native species are widely recognised as a major threat to biodiversity, second only to habitat loss. They can also have serious economic impacts and impacts on social, health and amenity resources.

Following on from the creation of the GB Non-Native Species Co-ordinating Mechanism, DEFRA published the 'Invasive Non-native species framework strategy for GB' in 2008. Parallel to this, a number of regional initiatives have been set up across the country which helps implement the various policy documents at a regional and sub-regional level. As such, a London Invasive Species Initiative has been formed to work within this context.

There are many species present in London, most of the non-native species do not pose a threat to biodiversity and add to the individuality and richness of London's wildlife and heritage. However, there are some invasive non-native species which are a cause for concern, some of which are already threatening the value of London's natural environment. Uniquely, the highly urbanised nature of London and the anticipated impacts of climate change are likely to exacerbate the effects of invasive non-native species. Finally, London is an international city and has a higher risk of new non-native species appearing and becoming invasive than some other areas.

The presence of a LISI species on or near a site has the following implications:

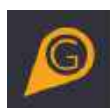
- The presence of an invasive species may threaten the ecological value of a site and cause additional socio-economic impacts.
- There is a statutory requirement under the Wildlife and Countryside Act 1981 to ensure that non-native species are not introduced or spread in the wild. Species listed in Schedule 9 of the act are known to be established in the wild and care should be taken to ensure that where present, these are not spread through site activities.
- In addition to establishing appropriate biosecurity measures, management may be required to eradicate, control or mitigate the species.

The LISI group was set up as a sub-group of the London Biodiversity Partnership in late 2009 and has since worked on prioritising species for London, providing advice, raising awareness and co-ordinating action on the ground.

Group membership is open to all interested organisations with an interest in invasive non-native species, particularly those seeking to work in partnership to tackle the problems caused by them. The Environment Agency currently chairs the group.

Joining the LISI group will enable:

- A more efficient and co-ordinated approach to tackling invasive non-native species, including practical action on the ground.
- A more co-ordinated approach will enable organisations to have up to date data on distribution and spread of invasive non-native species as well as work more closely with local groups and organisations to tackle these issues. This will lead to a reduction in resources spent in some locations in the long term.
- Habitat and environmental enhancements.



- Partnership work.

The group's objectives

The LISI objectives mirror the Convention for Biological Diversity's "guiding principles of prevention, detection/surveillance and control/eradication of invasive species" and cover the following points:

- Collating and monitoring data on the distribution and spread of invasive species in London.
- Developing action plans to address the species of most urgent concern.
- Facilitating control and eradication projects for high priority species.
- Providing a link between research and practitioners (to help to support the evidence base for invasive species impacts and/or control measures).
- Act as an early warning system for new and emerging invasive species.
- Promoting awareness of the risks and impacts associated with invasive species.

LISI species of concern

A list of invasive non-native species of concern for London has been drawn up using several sources of information: Schedule 9 of the Wildlife and Countryside Act 1981, The UK Water Framework Directive Technical Advisory Group's invasive species list and local knowledge. The resulting list presents a number of species either present in London and causing impacts for which action, monitoring or research is needed. The highest priority for London is also the prevention of new species arriving, particularly those for which national alerts are in place through the GB Non-Native Species Secretariat.

Each species has been assigned a category for action as follows:

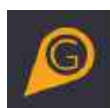
1. Species not currently present in London but present nearby or of concern because of the high risk of negative impacts should they arrive. Should any species listed in this category appear in London, this should be reported to GIGL or LISI to ensure that action is taken rapidly.
2. Species of high impact or concern present at specific sites that require attention (control, management, eradication etc). Such species are priority species for action in London and LISI encourages this wherever possible.
3. Species of high impact or concern which are widespread in London and require concerted, coordinated and extensive action to control/eradicate. These species are species currently causing large scale impacts across London and LISI supports area or catchment wide partnership working to ensure this.
4. Species which are widespread for which eradication is not feasible but where avoiding spread to other sites may be required. Appropriate biosecurity is required for sites where these species are found.
5. Species for which insufficient data or evidence was available from those present to be able to prioritise.
6. Species that were not currently considered to pose a threat or have the potential to cause problems in London.

Further information:

For further information relating to LISI please contact – enquiries@londonisi.org.uk

For further guidance on invasive non-native species, including management guidance and advice, please see the GB Non-Native Species Secretariat:

<https://secure.fera.defra.gov.uk/nonnativespecies/home/index.cfm>



Habitat Classifications

The habitat data includes the most recent habitat survey information for a given area. The data includes information collected using different habitat surveying methodologies.

GLA habitat surveys

The GLA conducted a series of rolling habitat surveys between the mid-1980s and 2009. It used the habitat typologies developed specifically for Greater London.

1 Survey information

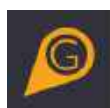
- 1.1 In order to choose sites for protection it is necessary to have good survey information on the habitats and species of all candidate areas.

The London Wildlife Habitat Survey

- 1.2 Information on wildlife habitats can be collected in a standardised, comprehensive survey. We are fortunate in London in having such a survey, first carried out by the London Wildlife Trust for the Greater London Council in 1984/85, and updated and extended in various surveys since, including re-examination of sites to be described in the handbook series or in relation to proposed developments or management. In a number of London boroughs a systematic survey has been carried out using the London Ecology Unit's specification since 1985. The specification was updated in 2000, when the GLA was established, to collect additional data required for open space planning. The format of the survey is similar to those usually described as 'Phase I' or 'Field by Field', but is enhanced by the extensive use of standardised written notes. The Authority holds this survey information.
- 1.3 The initial survey documented areas with semi-natural habitats (more natural than well-gardened allotments or heavily mown urban playing fields) and was also confined to large areas (above 0.5 ha for inner boroughs and 1 ha for outer boroughs). Much subsequent survey work has documented open spaces regardless of their natural quality and has used a much lower area threshold, to provide a more comprehensive coverage.
- 1.4 The wildlife habitat survey helps to ensure that candidate sites are not overlooked and that the same essential minimum of information is available for each. There is usually little other information available on the quality of the wildlife habitats, but any information provided is taken into account.

Information on species

- 1.5 Information on species, which has been obtained in a consistent and standardised manner as part of the systematic survey of habitats may be used by the Authority in reaching decisions on site quality. Other information on species, relating to individual sites, is frequently available but has rarely been collected in a systematic way so as to allow straightforward comparisons with other sites.
- 1.6 Information on species is often available from local naturalists, who are able to observe sites throughout seasons and years to provide an accurate and quite comprehensive listing of these and who may publish accounts of particular species or sites. Valuable though this information is, it often proves difficult to use it to compare candidate sites, as the recording effort put into each site may differ greatly and so may the completeness of the list. The length of the species list and the detection of rare species therefore depends upon the searching effort. For these reasons, such information on



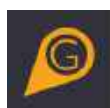
species is used only together with knowledge of how the information was obtained and of the way in which the ecology of individual species affects their apparent status.

- 1.7 The policy of the Authority is to take considerable care in interpreting site-based species data to ensure that fully professional standards are maintained.

Habitat Types

A list of habitats for open space survey in London

<u>Code</u>	<u>Name</u>	<u>Definition</u>
01/02/03	Woodland	Stands of trees forming at least 75% cover, including coppice and trees of shrub size, but excluding fen carr (19). Includes stands of willow except <i>Salix cinerea</i> , <i>caprea</i> and <i>viminalis</i> , but excludes hawthorn, hazel (except hazel coppice with standards), elder, juniper and the three willow species listed above, which are always scrub (06) regardless of height. Where the species composition does not fulfil any of 01, 02 or 03 below, code as a mixture. Always record % shrub layer under the qualifiers.
01	Native broadleaved woodland	Woodland (see above) with native broadleaved species (i.e. excluding sycamore and sweet chestnut) comprising at least 75% of the canopy.
02	Non-native broadleaved woodland	Woodland (see above) with non-native broadleaved species (including sycamore and sweet chestnut) comprising 75% of the canopy.
03	Coniferous woodland	Woodland (see above) with coniferous species (including yew) comprising 75% of the canopy.
37	Scattered trees	Trees forming less than 75% canopy cover over another habitat (excluding coppice with standards, which is coded as woodland). Record percentage tree cover here, and the rest of the area under the appropriate habitat.
05	Recently felled woodland	Does not include coppice, which is coded as woodland.
06	Scrub	Dominated (at least 75% cover) by shrubs (usually less than 5 metres tall), excluding fen carr (19), heathland (15), young woodland, coppice, hedges (25, 34) and planted shrubberies (38). Includes stands of hawthorn, hazel (except coppice with standards), elder and <i>Salix cinerea</i> , <i>caprea</i> and <i>viminalis</i> regardless of height.
38	Planted shrubbery	Dominated (at least 75% cover) by shrubs, usually non-native species, the majority of which have clearly been planted. Excludes hedges (25, 34).
25	Native hedge	Line of shrubs, with or without treeline, one or two mature shrubs wide (wider belts should be coded as scrub or woodland), with native species comprising at least 75% of the shrubs.
34	Non-native hedge	As above but with non-native species comprising at least 75% of the shrubs. If neither 25 nor 34 apply, code as a mixture.
31	Orchard	Planted fruit or nut trees forming at least 50% canopy cover.



Code	Name	Definition
36	Vegetated walls, tombstones. etc	Includes ruins, fences and other artificial structures with an appreciable amount of vegetation (including mosses and lichens) but excluding artificial water margins, which should be coded as wet marginal vegetation (18) if vegetated.
26	Bare soil and rock	Includes active quarries, fresh road workings, spoil or tipping and earth banks of water habitats, where these are minimally vegetated. Excludes arable land (28).
27	Bare artificial habitat	Includes tarmac, concrete, railway ballast, gravel paths, buildings and artificial margins to aquatic habitats, where these are minimally vegetated.
08	Acid grassland	Un- or semi-improved grassland on acidic soils, with less than 25% cover of heather or dwarf gorse. Excludes reedswamp (17). Usually with one or more of <i>Deschampsia flexuosa</i> , <i>Molinia caerulea</i> , <i>Nardus stricta</i> , <i>Juncus squarrosus</i> , <i>Galium saxatile</i> , <i>Potentilla erecta</i> or <i>Rumex acetosella</i> in abundance.
09	Neutral grassland (semi-improved)	Mesotrophic grassland usually with one or more of <i>Arrhenatherum elatius</i> , <i>Deschampsia cespitosa</i> , <i>Alopecurus pratensis</i> , <i>Cynosurus cristatus</i> , <i>Dactylis glomerata</i> , <i>Festuca arundinacea</i> or <i>F.pratensis</i> . Contains more than just <i>Lolium perenne</i> , <i>Trifolium repens</i> , <i>Rumex acetosa</i> , <i>Taraxacum</i> , <i>Bellis perennis</i> and <i>Ranunculus</i> species (see 07 and 11), but lacks the characteristic forbs of 35. Excludes reedswamp (17).
35	Neutral grassland (herb-rich)	Mesotrophic grassland with more forbs typical of old grassland than 09. Likely to contain one or more of <i>Primula veris</i> , <i>Lychnis flos-cuculi</i> , <i>Achillea ptarmica</i> , <i>Silene silaus</i> , <i>Succisa pratensis</i> , <i>Stachys officinalis</i> , <i>Serratula tinctoria</i> , <i>Ophioglossum</i> , <i>Gensita tinctoria</i> , <i>Sanguisorba officinalis</i> or <i>Caltha palustris</i> , or an abundance of <i>Carex ovalis</i> , <i>Pimpinella saxifraga</i> , <i>Conopodium majus</i> , <i>Cardamine pratensis</i> , <i>Knautia</i> or <i>Filipendula ulmaria</i> .
10	Basic grassland	Un- or semi-improved grassland containing calcicoles. Usually with some of <i>Brachypodium pinnatum</i> , <i>Bromopsis erecta</i> , <i>Helictotrichon pratense</i> , <i>Thymus polytrichus</i> , <i>Sanguisorba minor</i> , <i>Centaurea scabiosa</i> or <i>Origanum vulgare</i> in some abundance.
11	Improved or re-seeded agricultural grassland	Species-poor mesotrophic grassland containing little but <i>Lolium perenne</i> , <i>Trifolium repens</i> , <i>Agrostis</i> species, <i>Bellis perennis</i> , <i>Taraxacum</i> and <i>Ranunculus</i> species. Distinguished from 07 by its agricultural use and hence usually less frequent mowing.
07	Amenity grassland	Usually frequently mown, species-poor mesotrophic grassland characteristic of parks and sports pitches, containing similar species to 11. Scattered trees and shrubberies in parks should be coded separately.
12	Ruderal or ephemeral	Communities composed of pioneer species such as occur in early succession of heavily modified substrates. Typical species include <i>Senecio squalidus</i> , <i>S.vulgaris</i> , <i>Sinapis arvensis</i> , <i>Poa annua</i> , <i>Hirschfeldia incana</i> and species of <i>Polygonum</i> , <i>Persicaria</i> , <i>Melilotus</i> , <i>Atriplex</i> , <i>Chenopodium</i> , <i>Medicago</i> , <i>Vulpia</i> , <i>Picris</i> , <i>Lactuca</i> , <i>Diplotaxis</i> , <i>Conyza</i> and <i>Reseda</i> .

Code	Name	Definition
13	Bracken	Stands where bracken is dominant. Also used with other habitat codes to indicate scattered bracken.
14	Tall herbs	Stands of tall non-grass herbaceous species, often rhizomatous perennials, such as <i>Fallopia japonica</i> , <i>Conium maculatum</i> , <i>Chamerion angustifolium</i> , <i>Anthriscus sylvestris</i> , <i>Urtica dioica</i> , <i>Epilobium hirsutum</i> , <i>Solidago canadensis</i> and species of <i>Aster</i> and <i>Heracleum</i> . Excludes herbaceous fen vegetation 32).
33	Roughland	An intimate mix of semi-improved neutral grassland (09), tall herbs (14) and scrub (06). If these occur in large enough patches they should be coded separately. Usually the next successional stage after 12.
15	Heathland	Dwarf-shrub cover greater than 25% of species such as heathers and <i>Ulex minor</i> , with less than 50% cover of <i>Sphagnum</i> . May include a large amount of acid grassland (06) in a close mosaic, but code as a mixture if grassland areas are large.
39	Allotments (active)	Communal allotment gardens which are under cultivation. Code disused plots under other habitats as appropriate.
28	Arable	Cropland, horticultural land (excluding allotments), freshly ploughed land and livestock paddocks stocked so heavily as to have little vegetation.
16	Bog	Dominated by <i>Sphagnum</i> mosses (greater than 50% cover) with water table at or just below the surface.
17	Reedswamp	Stands of <i>Phragmites australis</i> with at least 75% cover of reeds. Includes dry and tidal stands.
40	Typha, etc swamp	Stands of <i>Glyceria maxima</i> , <i>Typha</i> species or <i>Phalaris arundinacea</i> where these species form at least 75% cover.
18	Wet marginal vegetation	Emergent vegetation with a permanently high water table in strips less than five metres wide on the margins of water bodies. Contains species such as <i>Iris pseudacorus</i> , <i>Apium nodiflorum</i> , <i>Acorus calamus</i> and species of <i>Rorippa</i> , <i>Alisma</i> and <i>Juncus</i> . May include <i>Phragmites</i> , <i>Typha</i> and <i>Glyceria maxima</i> , but where these form single-species stands code as 17 or 40 respectively. Usually too small to map but must always be coded if present.
19	Fen carr	Woodland or scrub over herbaceous vegetation with the water table above ground for most of the year.
20	Standing water (includes canals)	Lakes, reservoirs, pools, wet gravel pits, ponds, canals, docks and brackish lagoons beyond the limit of swamp or wet marginal vegetation. Always code vegetated margins separately and note trophic status and whether saline or tidal.
21	Ditches (water filled)	Distinguished from 20 and 22 by their (often agricultural) drainage role. Always code vegetated margins separately and note trophic status and whether saline or tidal.
22	Running water	Rivers and streams. Always code vegetated margins separately and note trophic status and whether saline or tidal.

<u>Code</u>	<u>Name</u>	<u>Definition</u>
23	Intertidal mud, sand, shingle, etc	Intertidal areas without significant vegetation of higher plants. Try to record the extent at low tide.
24	Saltmarsh	Intertidal areas appreciably vegetated with higher plants, excluding reedswamp (17).
30	Habitat information not available	Areas which cannot be observed due to restricted access, etc.
29	Other	To be avoided if possible. Must be specified if used.
32	Species-rich herbaceous fen	Stands of herbaceous vegetation where the water table is above ground for most of the year, with less than 75% dominance of <i>Phragmites</i> , <i>Typha</i> , <i>Glyceria</i> and <i>Phalaris arundinacea</i> . Distinguished by width from 18. So rare in London that it is not on the survey form; write in under "Other" if required.

Other habitat classifications

For further information on the recognised habitat classification systems and survey methods that may be represented within the GiGL data, please visit the following links:

National Vegetation Classification (NVC) - <http://jncc.defra.gov.uk/page-4259>

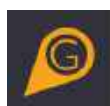
The National Vegetation Classification (NVC) is one of the key common standards developed for the country nature conservation agencies. The original project aimed to produce a comprehensive classification and description of the plant communities of Britain, each systematically named and arranged and with standardised descriptions for each.

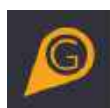
Phase I and Extended Phase I Habitat Assessment - <http://jncc.defra.gov.uk/page-4258>

The Phase 1 Habitat Classification and associated field survey technique provide a standardised system to record semi-natural vegetation and other wildlife habitats. Each habitat type/feature is identified by way of a brief description of its defining features.

Biodiversity Action Plan Broad Habitat classification - <http://jncc.defra.gov.uk/page-4261>

This classification was developed as part of the UK Biodiversity Action Plan. The Broad Habitats are the framework through which the Government is committed to meet its obligations for monitoring in the wider countryside.





Open Space Designations

Open Space: undeveloped land which has an amenity value, or has potential for an amenity value. The value could be visual, derive from a site's historical or cultural interest or from the enjoyment of facilities which it provides. It includes both public and private spaces, but excludes private gardens.

English Heritage Registered Parks and Gardens: The English Heritage 'Register of Historic Parks and Gardens of special historic interest in England', established 1983, currently identifies over 1,600 sites assessed to be of national importance. The emphasis of the Register is on 'designed' landscapes, rather than on planting or botanical importance. The majority of sites are, or started life as, the grounds of private houses, but public parks and cemeteries form important categories. Sites are divided into three grade bands to give added guidance on their significance.

- Grade I sites are of exceptional interest
- Grade II* sites are particularly important, or more than special interest
- Grade II sites are of special interest, warranting every effort to preserve them.

More information at: www.english-heritage.org.uk

Green Flag Awards: The Green Flag Award Scheme recognises and rewards the best green spaces in the country. There are three different awards:

- Green Flag Award: The benchmark national standard for parks and green spaces in the UK>.
- Green Flag Community Award: Recognises high quality spaces in England and Wales managed by voluntary and community groups.
- Green Heritage Sites: Awarded to parks and green spaces with local or national historic importance.

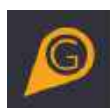
London Square: These are spaces protected by the London Squares Preservation Act (1931); a unique piece of legislation designed to prevent the loss of London's squares to development. 461 squares are protected under this act.

Common: The Commons Registration Act 1965 initiated a formal inventory of commons and green in England and Wales. It defines common land as 'land subject to rights of common (as defined in this Act) whether those rights are exercisable at all times or only during limited periods' and 'waste land of a manor not subject to rights of common' (Section 22).

The Commons Act 2006 provided another chance for common land to be registered. This new law aims to protect these areas, in a sustainable manner delivering benefits for farming, public access and biodiversity.

Data is obtained from Defra (2012). This database is believed to contain records for nearly all parcels of registered common land in England, with various associated data including location, area, extent of rights etc. The information for Greater London was assembled in 1985 as part of the biological survey of common land. The data are not kept up-to-date with subsequent new registrations of common land, or amendments to existing registrations. These data must be seen as a snapshot of the registers of common land at the time of the survey. Although deregistration of land registered as common land occurs very infrequently, the entries in this database cannot be guaranteed, and reliance should be placed on an inspection of the relevant register held by the commons registration authority for confirmation.

Village Green: is an area which has been allocated by an Act of Parliament for the exercise or recreation of the inhabitants of any locality, or on which the inhabitants of any locality have a customary right to indulge in lawful sports and pastimes.



Data are taken from information collected by the Greater London Council in 1965.

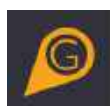
Metropolitan Open Land: is land designated to strategically project important open spaces within the built environment. It provides a clear break in the urban fabric and contributes to the capital's green character, often hosting outdoor facilities for Londoners away from their local area and boasting nationally or regionally significant features of landscape of historic, recreational or biodiversity value.

Green Belt: is land which has been specifically designated as such, either by legislation or through the preparation of development plans, with the aim to protect the open character of the countryside next to urban areas.

Public Open Spaces and Areas of Deficiency in Access to Public Open Space

Public Open Spaces are categorised according to a site hierarchy documented in The London Plan (Table 7.2).

Public Open Space Category	Description	Size guideline	Distances from homes
Regional Parks	Large areas, corridors or networks of open space, the majority of which will be publicly accessible and provide a range of facilities and features offering recreational, ecological, landscape, cultural or green infrastructure benefits. Offer a combination of facilities and features that are unique within London, are readily accessible by public transport and are managed to meet best practice quality standards.	400 hectares	3.2 to 8 km
Metropolitan Parks	Large areas of open space that provide a similar range of benefits to Regional Parks and offer a combination of facilities at a sub-regional level, are readily accessible by public transport and are managed to meet best practice quality standards.	60 hectares	3.2 km
District Parks	Large areas of open space that provide a landscape setting with a variety of natural features providing a wide range of activities, including outdoor sports facilities and playing fields, children's play for different age groups and informal recreation pursuits.	20 hectares	1.2 km
Local Parks and Open Spaces	Providing for court games, children's play, sitting out areas and nature conservation areas.	2 hectares	400 m
Small Open Spaces	Gardens, sitting out areas, children's play spaces or other areas of a specialist nature, including nature conservation areas.	Under 2 hectares	Less than 400 m
Pocket Parks	Small areas of open space that provide natural surfaces and shaded areas for informal play and passive recreation that sometimes have seating and play equipment.	Under 0.4 hectares	Less than 400 m
Linear Open Spaces	Open spaces and towpaths alongside the Thames, canals and other waterways; paths, disused railways; nature conservation areas; and other routes that provide opportunities for informal recreation. Often characterised by features	Variable	Wherever feasible



	or attractive areas which are not fully accessible to the public but contribute to the enjoyment of the space.		
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Open Space Categories

The main site typologies are based upon previous *Planning Policy Guidance 17: Planning for Open Space, Sport and Recreation* categories.

Sub-categories are based on classifications used in the GLA open space surveys.

i. Parks and Gardens

Park refers to traditional public open spaces laid out formally for leisure and recreation. They usually include a mixture of lakes, ponds, lidos, woodland, flower beds, shrubs, ornamental trees, play spaces, formal and informal pitches, bowling greens, tennis courts, golf pitch & put, footpaths, bandstands, toilets, cafes and car parks - but not necessarily all of these. Parts of some parks might be managed as so-called natural areas. Examples of parks include the Royal Parks, municipal parks such as Battersea and Victoria, and wilder places such as Hampstead Heath which, although having distinctly informal qualities, are maintained predominantly for the same purpose, and include the usual swings and roundabouts and playing pitches. Many parks are enclosed by walls or railings, although some parks that began as common land may not be enclosed.

Formal garden refers to spaces with well defined boundaries that display high standards of horticulture with intricate and detailed landscaping. It includes the London squares common to central London, which are typically square areas of grass with some shrub borders, bounded by railings, and surrounded by buildings. Examples include Belgrave Square and Soho Square.

ii. Natural and Semi Natural

Common refers to publicly accessible open space that has few if any 'facilities'. It will typically be mainly open rough grassland (not mown playing field or recreation ground type grass) and/or woodland, and may have a limited provision of facilities. In typology terms, commons are much less formal than parks or parkland. Examples include Wimbledon Common, Wanstead Flats, and parts of Epping Forest.

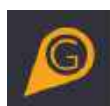
Country Parks are large areas set aside for informal countryside recreation near or within towns and cities. A list of sites that call themselves Country Parks is available on the Natural England website.

Private woodland refers to woodland which is not accessible for recreational use, nor managed for nature conservation. Record this under "other" until the survey form is revised to accommodate it.

Public woodland refers to woodland which is accessible for recreational use, but not managed for nature conservation.

Nature reserve is a category reserved for an open space that is managed primarily for nature conservation. Do not tick this box just because the site has a nature conservation designation. Many parks, etc. have such designations. An SSSI is likely to have park, common or agriculture as its type. Designated Local Nature Reserves, however, are recorded here. Also do not tick this box where you find small areas set aside for nature within parks, commons and other open spaces.

iii. Green Corridors



River should only be used for rivers and streams that do not form part of another land use, such as park, common or nature reserve.

Canal implies an artificial waterway which is navigable. Include docks in this category.

Railway cutting and **railway embankment** are self-explanatory.

Disused railway trackbed is usually obvious, with some traces of its former use. Where disused trackbeds are specifically managed for nature conservation, such as Parkland Walk, record as nature reserve.

Road island/verge is self-explanatory. Record as nature reserve if specifically managed for nature conservation.

Walking / cycling route is a designated footpath / cycleway through informal open space often along former railways or canals but record these examples as Disused railway trackbed or Canal.

iv. Outdoor Sports Facilities

Recreation ground is an area of mown grass used primarily for informal, unorganised ball games and similar activities (including dog walking). Not to be confused with playing fields, below.

Playing field is a site comprising playing pitches, usually for football, but also for rugby and hockey and, in the summer, for cricket. Playing pitches may not always be laid out in the summer, so look out for notice boards or changing rooms and pavilions for evidence. Include sites here even if they appear disused. Include school playing fields. Almost always, playing fields consist only of pitches; but they will sometimes have other bits of open land around the edges. Do not include sites that partly contain playing pitches but are more properly categorised as parks or commons. Pitches are often to be found in parks and commons, but the type here is concerned with sites that are exclusively or predominantly reserved for organised team sports.

Golf course: do not include golf courses that are part of parks, commons etc. This type does not include golf driving ranges, pitch & putt or crazy golf.

Other recreational is to be used for sites that are used exclusively or predominantly for other organised sports such as bowls, tennis and golf driving ranges (but not golf courses, see below).

v. Amenity

Village green is usually an expanse of grass in the centre of old villages, often used in the summer for cricket.

Hospital includes the grounds of any clinic or health centre.

Educational refers to school or college grounds and field study centres where school education is the primary function. Nature sites which cater for schools and for the general public should be recorded under nature reserves. School playing fields should be recorded under playing fields.

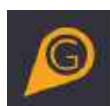
Back garden land is self-explanatory. While most surveys exclude private gardens, backlands are often surveyed for planning casework.

Landscaping around premises includes communal amenity space around housing estates and community centres, and also landscaping around industrial premises.

Reservoir includes covered reservoirs unless these form part of a park.

vi. Children and Teenagers

Play space is a site set aside mainly for children. It will contain the usual paraphernalia of swings, slides and roundabouts. Do not record play spaces here if they form part of parks, commons and other open spaces.



Adventure playground is a defined play area for children in a supervised environment. Boundaries and entrances are secure.

Youth area is a defined area for teenagers including skateboard parks, outdoor basketball hoops and other more informal areas such as 'hanging out' areas and teenage shelters.

vii Allotments, Community Gardens and City Farms

Allotments should be obvious. Include them even if they appear or are disused.

Community garden includes an area that is generally managed and maintained by the local population as a garden and/or for food growing and normally restricted in their access. For examples Pheonix Garden in Holborn.

City farm includes areas that are generally managed and maintained as a small farm by the local population, containing livestock and planting and normally restricted in their access. For example Freightliners Farm in Islington.

viii. Cemeteries and Churchyards

Churchyard/cemetery includes burial grounds, graveyards, crematorium grounds and memorial gardens, and gardens or grounds of non-Christian places of worship. Some former or burial grounds that have become full have been converted to informal leisure or recreation spaces; where the gravestones have been removed, these should be recorded as parks.

ix. Other Urban Fringe

Equestrian centre includes any land used for intensive horse keeping and riding, but not extensive horse grazing, which should be recorded as agriculture.

Agriculture includes arable and grazing land, including horse grazing, and market gardening (such as vegetables, often grown under cloches, etc.).

Nursery/horticulture does not include commercial retail nurseries (although these might legitimately form a part of a park or common, etc.). Horticulture includes areas of permanent glasshouses.

x. Civic Spaces

Civic/market square includes tarmac areas or paved open spaces, which may or may not include planting. However, they do not necessarily have seats and may just be a plaza area, with some planting (usually trees) and public art. Often provide a setting for civic buildings and opportunities for open air markets, demonstrations and civic events. Examples include the area in front of the jubilee line station at Canary Wharf, and the plaza in front of Westminster Cathedral.

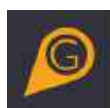
Other hard surfaced areas include other areas designed for pedestrians. These typically are used as 'sitting out' areas, where workers can enjoy the sun and eat their sandwiches, and as such usually have seats or benches. For example, Emma Cons Gardens opposite the Old Vic Theatre. This category excludes pedestrianised streets, car parks, servicing areas to buildings, and housing amenity space such as communal courtyards.

xi. Other

Sewage/water works includes extensive sludge drying areas, filter beds, etc.

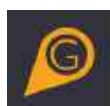
Disused quarry/gravel pit may be water-filled, but is not necessarily so.

Vacant land is land with no formal land use. This includes many "urban commons" which are used by people for informal recreation and which may be very valuable for nature conservation. If sites have formalised access and management for nature conservation, record as commons or nature reserves as appropriate.



Land reclamation is land recently decontaminated or reclaimed from disuse, which has not yet been redeveloped.

Others could be anything that does not fit any of the above categories, such as airfields or forestry (not wooded commons or woodland nature reserves)



Data Search Results 07/07/2020

HERC Ref: 202007_014

RAMSAR

Ramsar sites are designated under the Convention on Wetlands of International Importance especially as Waterfowl Habitat. Wetlands are designated, protected and promoted in order to stem the progressive encroachment on and loss of wetlands, which are broadly defined to include marsh, fen, peatland and water.

Special Areas of Conservation (SAC)

Special Areas of Conservation are sites designated by Member States under the EC Habitats Directive. The aim is to establish a European network of important high quality conservation sites that will make a significant contribution to conserving habitats and species considered to be most in need of conservation at a European level.

Special Protection Areas (SPA)

Special Protection Areas are designated under the EC Birds Directive, to conserve the habitat of certain rare or vulnerable birds and regularly occurring migratory birds. Any significant pollution or disturbance to or deterioration of these sites has to be avoided.

National Nature Reserves (NNR)

National Nature Reserves are statutory reserves established for the nation under the Wildlife and Countryside Act, 1981. NNRs may be owned by relevant national body (e.g. Natural England in England) or established by agreement; a few are owned and managed by non-statutory bodies. NNRs cover a selection of the most important sites for nature conservation in the UK.

Sites of Special Scientific Interest (SSSI)

Sites of Special Scientific Interest are areas notified under the Wildlife and Countryside Act, 1981, as being of 'special interest for nature conservation'. They represent the finest sites for wildlife and natural features in Great Britain supporting many characteristic, rare and endangered species, habitats and natural features. Notification as a SSSI is primarily a legal mechanism organised by Natural England and selected according to specific criteria. The *Guidelines for the Selection of Biological SSSIs*, published in 1989 by the Joint Nature Conservancy Council, set down the selection criteria for both biological and geological SSSIs.

Local Nature Reserves (LNR)

Land owned, leased or managed by Local Authorities and designated under the National Parks and Access to the Countryside Act. A site of some nature conservation value managed for educational objectives - no need for SSSI status. Some reserves are managed by a non-statutory body. Local authorities have the power to pass bylaws controlling (e.g.) access, special protection measures.

Statutory Sites

Site Name	Status	Grid Reference	Area (ha)	Distance (m)
Ruislip Woods	NNR	TQ093889	295.48	1480
Ruislip Woods	SSSI	TQ093889	307.45	1480
Prestwick Road Meadows	LNR	TQ117922	2.75	1920
Oxhey Woods	LNR	TQ106925	100.21	860

Ancient woodland

Ancient Woodland is land that has had a continuous woodland cover since at least 1600 AD and has only been cleared for underwood or timber production. It can be placed in two categories:

Ancient Semi-natural Woodland (ASNW) – woodland that retains a native tree and shrub cover that has not been planted, although it may have been managed by coppicing or felling and allowed to regenerate naturally. This covers all stands of ancient woodland which do not obviously originate from planting.

Ancient replanted Woodland (AWS - ancient woodland site or PAWS - plantation on ancient woodland site) – woodland where the original tree cover has been felled and replaced by planting, often with conifers and usually this century.

Ancient Woodland Inventory Sites

Site Name (where known)	Grid Reference	Category	Area (ha)	Distance (m)
	TQ082900	ASNW	75.42	1540
Abbotts Wood	TQ107927	ASNW	8.97	1350
Abbotts Wood	TQ106930	ASNW	13.21	1580
Abbotts Wood	TQ108920	ASNW	17.60	890
Abbotts Wood	TQ107924	PAWS	3.56	1270

Park Wood	TQ092890	ASNW	100.86	1550
Pinner Wood	TQ113914	ASNW	0.67	1350
Pinner Wood	TQ112915	ASNW	1.70	1160
Pinner Wood	TQ112912	ASNW	2.36	1270

Herts and Middlesex Wildlife Trust Nature Reserves

File Code	Site Name	Area (ha)	Distance (m)
None			

Local Wildlife Site / Wildlife Sites

Local Wildlife Sites are non-statutory sites designated at a county level as being of conservation importance and often recognised in Local authority development plans. The aim of this identification is to protect such sites from land management changes, which may lessen their nature conservation interest, and to encourage sensitive management to maintain and enhance their importance. Although WS have no statutory protection they need to be considered in the planning process through Planning Policy Guidance like PPG9 which refers to the Town & Country Planning Act 1990 Section 30. This states that nature conservation issues should be included in the surveys of local authority areas to ensure that the plans are based on fully adequate information about local species, habitats, geology and landform. Plans should be concerned not only with designated areas but also with other land of conservation value and the possible provision of new habitats.

Local Wildlife Sites

File Code	Site Name	Grid Reference	Area (ha)	Ratified	Description	Distance (m)
89/017	Sandy Lodge Golf Course	TQ092933	58.02	1997	Golf course supporting a mosaic of habitats including semi-improved acid grassland, unimproved acid grassland/heath, a pond, pits, patches of scrub and broadleaf woodland. A good diversity of species has been recorded from the grassland including Greater Knapweed (<i>Centaurea scabiosa</i>), Agrimony (<i>Agrimonia eupatoria</i>), Bird's-foot Trefoil (<i>Lotus corniculatus</i>), Meadow Vetchling (<i>Lathyrus pratensis</i>), Sheep's Sorrel (<i>Rumex acetosella</i>), Lady's Bedstraw (<i>Galium verum</i>), Small Scabious (<i>Scabiosa columbaria</i>), Devil's-bit Scabious (<i>Succisa pratensis</i>), Heath Bedstraw (<i>Galium saxatile</i>) and Heather (<i>Calluna vulgaris</i>). The woodland bordering the west and east side supports mature Ash (<i>Fraxinus excelsior</i>), Silver Birch (<i>Betula pendula</i>), Pedunculate Oak (<i>Quercus robur</i>) and Hornbeam (<i>Carpinus betulus</i>) with some dense areas of scrub. The ground flora includes woodland indicators such as Bluebell (<i>Hyacinthoides non-scripta</i>) and	1810

					Dog's Mercury (<i>Mercurialis perennis</i>). Wildlife Site criteria: Grassland indicators.	
90/001	Prestwick Road Meadows, South	TQ117922	2.76	1997	A series of neutral to acid damp grassland on the London Clay with a species-rich flora recorded including Crested Dog's-tail (<i>Cynosurus cristatus</i>), Sweet Vernal-grass (<i>Anthoxanthum odoratum</i>), Upright Tormenitl (<i>Potentilla erecta</i>), Bird's-foot Trefoil (<i>Lotus corniculatus</i>), Common Sorrel (<i>Rumex acetosa</i>), Meadow Buttercup (<i>Ranunculus acris</i>), Glaucous Sedge (<i>Carex flacca</i>), Hoary Ragwort (<i>Senecio erucifolius</i>), Field Wood-rush (<i>Luzula campestris</i>), Sneezewort (<i>Achillea ptarmica</i>) and Pepper-saxifrage (<i>Silaum silaus</i>). Wetter patches contain species such as Creeping Jenny (<i>Lysimachia nummularia</i>), Meadowsweet (<i>Filipendula ulmaria</i>), Greater Bird's-foot Trefoil (<i>Lotus pedunculatus</i>) and Lady's Smock (<i>Cardamine pratensis</i>). Less common species noted include Oval Sedge (<i>Carex leporina</i>) and Common Yellow Sedge (<i>Carex viridula</i> ssp. <i>oedocarpa</i>). The grasslands are separated by thick bands of mixed scrub and secondary woodland, associated with old field boundaries. An old pond provides additional wetland habitat. Amphibians and reptiles have been recorded from the site. Wildlife Site criteria: Grassland indicators; species.	1920
90/006	Oxhey Woods	TQ104929	99.71	1997	Ancient semi-natural oak (<i>Quercus robur</i> and <i>Q. petraea</i>)/Hornbeam (<i>Carpinus betulus</i>) woodland situated on an acidic clay and gravel plateau. The woodland supports a complex range of habitats and is one of the most important woodlands in Hertfordshire. It can be divided into three compartments separated by the road network. The woodland supports areas of Pedunculate and Sessile Oak with Hornbeam with some Silver Birch (<i>Betula pendula</i>), Ash (<i>Fraxinus excelsior</i>) and Beech (<i>Fagus sylvatica</i>). Hazel (<i>Corylus avellana</i>) and Hornbeam coppice occurs in places along with a little Sweet Chestnut (<i>Castanea sativa</i>) coppice in the north. Wild Service-tree (<i>Sorbus torminalis</i>) has been recorded. The woodland supports a good woodland structure with an understorey mainly of Hazel,	880

					Hawthorn (<i>Crataegus monogyna</i>), Blackthorn (<i>Prunus spinosa</i>) and Crab Apple (<i>Malus sylvestris</i>) plus there are also several areas of Rhododendron. The ground flora is dominated by abundant Bluebell (<i>Hyacinthoides non-scripta</i>) but with other species such as Wood Millet (<i>Milium effusum</i>), Bugle (<i>Ajuga reptans</i>), Pendulous Sedge (<i>Carex pendula</i>), Wavy Hair-grass (<i>Deschampsia flexuosa</i>) and Wood Sage (<i>Teucrium scorodonia</i>). There is a small area of Heather (<i>Calluna vulgaris</i>) and occasional Bracken (<i>Pteridium aquilinum</i>). Several small seasonal streams drain the plateau and a pond (dry) occurs in the central compartment. Other habitats include wet grassland, ditches and an ancient hedge bank. Grass Snakes (<i>Natrix natrix</i>) and bats have been recorded from the site. Wildlife Site criteria: Ancient Woodland Inventory site; woodland indicators.	
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Regionally Important Geological / Geomorphological Site (RIGS)

Regionally Important Geological/Geomorphological Sites are non-statutory earth science sites. The RIGS networks are locally based voluntary groups drawing on both professional and interest groups identifying sites using a methodical and rational approach. RIGS are analogous to non-statutory biological sites - they are not a second tier but sites of regional or local importance in their own right.

RIGS

File Code	Site Name	Grid Reference	Area (ha)	Distance (m)
None				

Veteran & Mature Trees from HERC database

Record No	Survey Date	Tree Species	Girth (cm)	Site Name	Site Address	Context	Eastings	Northings	Distance (m)
1640	2002/08/01	Beech	5	Oxhey Woods		WL, Woodland	510100	193000	1670

Local Sites Map 1

Search Information

◆ Search point

○ Search area

Local Sites

■ Local Wildlife Sites

Administrative Area

— Herts County Boundary

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National Sites Map 1

Search Information

◆ Search point

○ Search area

National Sites

Statutory Sites

SSSI

NNR

LNR

Ancient Woodland Inventory

Administrative Area

Herts County Boundary

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Hertfordshire Ecological Network Mapping

Introduction

A project was carried out in 2011-2013 producing a new Hertfordshire habitat inventory with latest available data and then using these data to generate potential habitat network maps. Potential habitat network maps identify how our habitats are spatially related to each other and where the highest priorities are for expanding them and linking them together. This strategic approach ensures that efforts can be targeted to where they are of most potential benefit. It also ensures that the right combination of habitats are created in the right places, reflecting the historical context and physical factors and minimising unintended consequences of locking out the potential to restore functioning networks of one habitat for the sake of another.

The Hertfordshire Ecological Network mapping project was managed by a steering group that included representatives of the County Council and DEFRA bodies and the guidance document (below) has been approved by the Hertfordshire Local Nature Partnership Planning Task Group that includes representatives from Herts Ecology, the County Council, District Councils and landowners.

For more detail on the project, please visit <https://bit.ly/2tR5jYw>

How to interpret the maps

The guidance below is based on an advisory document, produced by the Hertfordshire Local Nature Partnership Planning Task Group, which is available here: <https://bit.ly/2MNDhUu>

The guidance below is based around identifying appropriate actions and principles to apply to the different areas on the map. For any development proposal the first stage is to identify how the different features within the dataset are distributed across the proposed development area. This will involve viewing the map component of the dataset and interrogating the associated data table for each of the map features within and around the proposed site. For ease of use, the map component of the dataset is colour-coded by the overarching categories in the first column of the data table.

Green areas on the map (values of 1 in the first column of the data table)

- These patches contain habitats listed within S41 of the NERC Act and should be avoided by development and protected by the development management system.
- Adjacent or surrounding development should provide for the enhancement of these habitats through ongoing positive conservation management. The data table identifies the habitat type that must be maintained.
- Development causing significant harm to these patches should normally be refused. Where there is unavoidable harm in the context of overriding public interest, the mitigation hierarchy should be applied. Depending on the circumstances, all other areas on the map could potentially be candidate areas for applying appropriate compensation measures. The same actions described for restoring and creating habitats to enhance ecological networks equally apply to compensation measures. NB a simple 1:1 ratio of compensation for habitat area damaged is unlikely to be enough due to the poor success rate and risks involved in creating new habitats to the same standard as those lost. In reality the ratio is likely to be much higher, in some cases up to a 1:10 ratio of harm to compensation area. Other habitat types are considered irreplaceable (eg. ancient woodland) and can never be adequately compensated if lost.

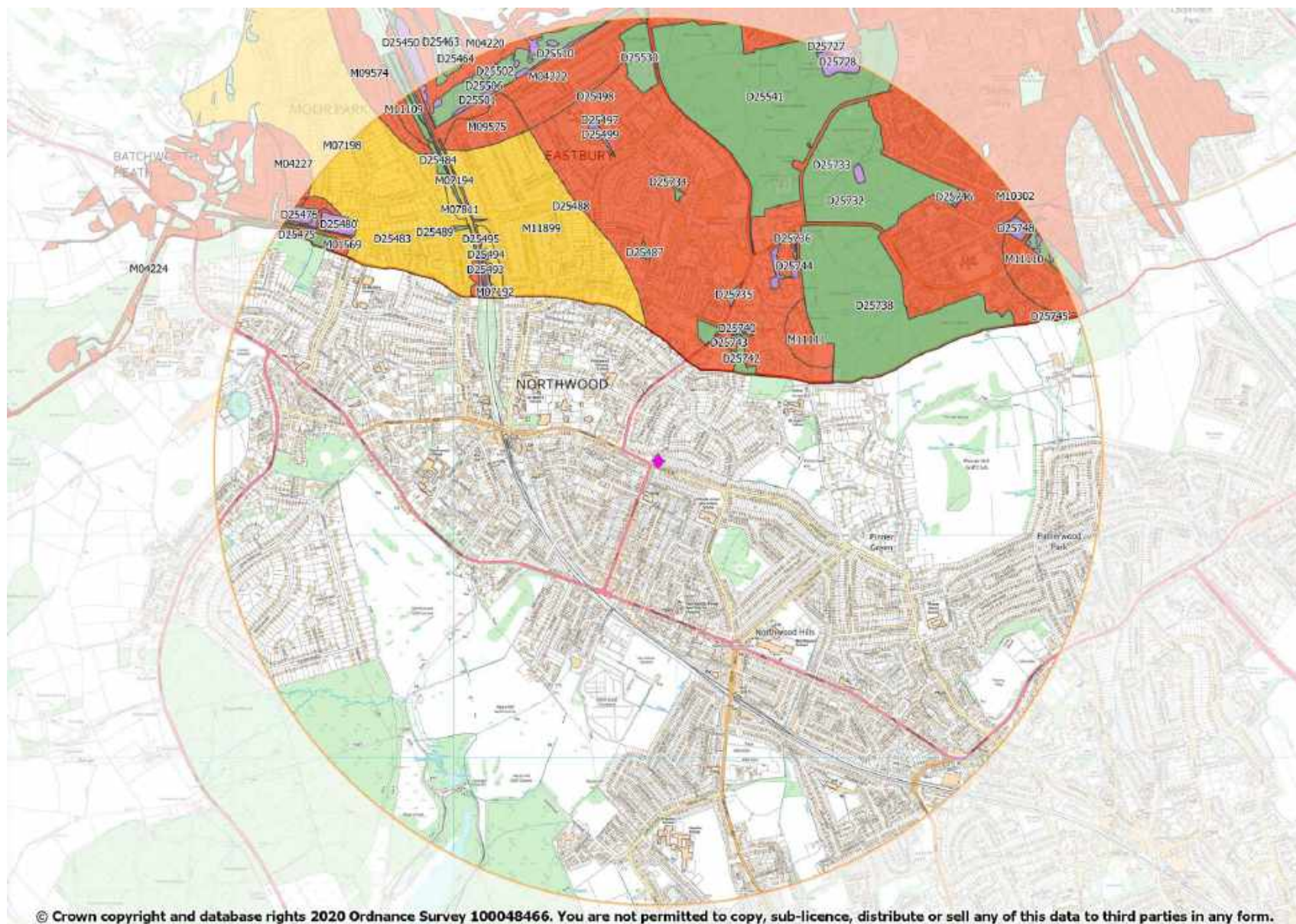
Purple areas on the map (values of 2 in the first column of the data table)

- These patches contain habitats not currently qualifying under S41 of the NERC Act but with high potential to do so. Whilst not receiving the same level of statutory and policy-based protection as the green areas, they should nonetheless be avoided by development and protected by the development management system where reasonable to do so. This is because they are important components of ecological networks and it is much quicker, less risky and more cost-effective to restore these habitats than to create new ones elsewhere.
- Enhancements to the ecological network can be carried out through restoring these habitat patches to the most appropriate S41 NERC Act habitat type. This would be provided through a combination of one-off capital works and ongoing positive conservation management. The data table specifies the target habitat type most appropriate to restore these patches to.

Orange/yellow/cream areas on the map (values of 3a, 3b and 3c in the first column of the data table)

- These patches contain no mapped existing habitats of any significance. Therefore, in the context of the ecological networks dataset, these areas are suitable for appropriate development.
- These areas also form the potential for new habitat corridors to be created to improve ecological network integrity. The dataset identifies the relative priorities for habitat creation to form corridors and other links (eg. habitat 'stepping stones') between existing habitat patches. Orange areas are predicted to be of higher priority than yellow, which are predicted to be of higher priority than cream (values of 3a > 3b > 3c respectively in the first column of the data table). These relative priorities should be taken into account in the design of masterplans, by focusing habitat corridors primarily on the orange areas and then yellow and then cream, as appropriate. Development proposals containing large areas of orange on the map will need to plan the most sensitively and produce the greatest enhancements to the ecological network. The dataset simply predicts relative priority for habitat creation, not necessarily realistic sizes of such projects. Whilst it will normally be unlikely that whole areas coloured in orange on the map would be allocated for creating habitat, it is expected that where orange areas on the map exist, development should aim to provide ecologically functioning corridors from one end of their land to the other.
- There are no hard and fast rules for determining the scale of habitat corridors because it depends on the context and also the scale of development (with larger developments able to contribute the most). However, corridors should be of a scale to allow them to properly function ecologically. For example, a simple Green Infrastructure corridor consisting of a footpath with only a small verge of habitat is unlikely to function ecologically. As a general principle, the wider, larger and more continuous the corridor, the more it will contribute to the integrity of the ecological network.
- Opportunities for habitat creation projects to comprehensively link up existing habitats within and around the development envelope should be designed into the masterplan. This should be done at the earliest possible stage in the process, normally at the same time as other infrastructure, in order to ensure that contributions are both meaningful and cost-effective. If habitat corridors are designed into the masterplan as an afterthought, good opportunities will be missed and habitat creation projects are likely to be less appropriate and less cost-effective. Worst case scenario would be total and permanent severance of a network. It is highly recommended that expert ecological advice is sought in the earliest stages in the design of a masterplan.
- The dataset identifies the most appropriate predicted habitat types to focus on in any given area on the map. Habitat recommendations are found in the Target habitat type column of the table. Where more than one habitat type is recommended, it may be appropriate to focus on just one of

them or to try and combine all habitat recommendations into the habitat corridor being created. It is strongly recommended that expert ecological advice is sought in cases where more than one habitat type is recommended or where a soil test contra-indicates the recommended habitat type.





Herts Environmental Record Centre

Distance (m)	Common Name	Scientific Name	Taxon Group	Grid Reference	Earliest Record	Latest Record	Number of Records	European	UK Legal	NERC	BAP2007	IUCN	Scarce Rare	Bern2000	Birds Dir	Local Status	WCA9	Status Designations
770	Eastern Grey Squirrel	<i>Sciurus carolinensis</i>	Terrestrial Mammals (excl. Bats)	TQ106917	05/11/2015	05/11/2015	1									x	WCA9i	
880	Heather	<i>Calluna vulgaris</i>	Higher Plants - Flowering Plants	TQ106919	20/07/2003	20/07/2003	1					x						RLENG.Lr(NT)
910	Grass Snake	<i>Natrix helvetica</i>	Reptiles	TQ107918	22/04/1979	22/04/1979	1		x	x	x							WCA5/9.1k/I;Sect.41;UKBAP
1030	Cinnabar	<i>Tyria jacobaeae</i>	Invertebrates - Moths	TQ10009236	25/05/2016	25/05/2016	1			x	x							Sect.41;UKBAP
1100	Bluebell	<i>Hyacinthoides non-scripta</i>	Higher Plants - Flowering Plants	TQ108920	28/06/1978	28/06/1978	1		x									WCA8
1100	Flea Sedge	<i>Carex pulicaris</i>	Higher Plants - Flowering Plants	TQ108920	28/06/1978	28/06/1978	1					x				x		RLENG.Lr(NT);Herts Rare/Herts ExtinctQ
1170	Rhagium mordax	<i>Rhagium mordax</i>	Invertebrates - Beetles (Coleoptera)	TQ104924	08/05/2018	08/05/2018	2									x		HertsLocal
1350	Bluebell	<i>Hyacinthoides non-scripta</i>	Higher Plants - Flowering Plants	TQ106925	Apr-92	26/06/2003- 03/07/2003	2		x									WCA8
1350	Distant Sedge	<i>Carex distans</i>	Higher Plants - Flowering Plants	TQ106925	26/06/2003- 03/07/2003	26/06/2003- 03/07/2003	1									x		Herts Rare
1350	Heather	<i>Calluna vulgaris</i>	Higher Plants - Flowering Plants	TQ106925	Apr-92	Apr-92	1					x						RLENG.Lr(NT)
1350	Japanese Knotweed	<i>Fallopia japonica</i>	Higher Plants - Flowering Plants	TQ106925	Apr-92	Apr-92	1									x		WCA9ii
1350	Sanicle	<i>Sanicula europaea</i>	Higher Plants - Flowering Plants	TQ106925	26/06/2003- 03/07/2003	26/06/2003- 03/07/2003	1					x						RLENG.Lr(NT)
1350	Wood-sorrel	<i>Oxalis acetosella</i>	Higher Plants - Flowering Plants	TQ106925	Apr-92	Apr-92	1					x						RLENG.Lr(NT)
1350	Yellow Loosestrife	<i>Lysimachia vulgaris</i>	Higher Plants - Flowering Plants	TQ106925	26/06/2003- 03/07/2003	26/06/2003- 03/07/2003	1									x		Herts Rare
1350	Marsh Fritillary	<i>Euphydryas aurinia</i>	Invertebrates - Butterflies	TQ106925	1938	1938	2	x	x	x	x	x		x	x			HSD2p;WCA5/9.1k/I;WCA5/9.4.a;WCA5/9.4b;Sect.41;UKBAP;RLGB.VU;Bern2;Herts Extinct (B)
1350	Pearl-bordered Fritillary	<i>Boloria euphrosyne</i>	Invertebrates - Butterflies	TQ106925	1875 - 1937	1875 - 1937	1			x	x	x				x		Sect.41;UKBAP;RLGB.EN;Herts Extinct (B)
1350	Purple Emperor	<i>Apatura iris</i>	Invertebrates - Butterflies	TQ106925	1878	1878	1					x				x		RLGB.Lr(NT);Herts Rare (B)
1350	Heart Moth	<i>Diclyla oo</i>	Invertebrates - Moths	TQ106925	1938	1938	1			x	x					x		Sect.41;UKBAP;Herts Extinct (M)
1350	Sword-grass	<i>Xylena exsoleta</i>	Invertebrates - Moths	TQ106925	1875 - 1937	1875 - 1937	1				x					x		UKBAP;Herts Extinct (M)
1380	Bluebell	<i>Hyacinthoides non-scripta</i>	Higher Plants - Flowering Plants	TQ108924	28/06/1978	28/06/1978	1		x									WCA8
1620	Buzzard	<i>Buteo buteo</i>	Birds	TQ108927	28/07/2014	28/07/2014	1								x			CMS_A2
1620	Goldcrest	<i>Regulus regulus</i>	Birds	TQ108927	10/11/2011	10/11/2011	1								x			Bern2
1620	Great Spotted Woodpecker	<i>Dendrocopos major</i>	Birds	TQ108927	13/07/2003	13/07/2003	1								x			Bern2
1620	Green Woodpecker	<i>Picus viridis</i>	Birds	TQ108927	12/07/2003	12/07/2003	1								x			Bern2
1620	Red Kite	<i>Milvus milvus</i>	Birds	TQ108927	01/07/2014	01/07/2014	1		x						x			WCA1;BD1;CMS_A2
1620	Sparrowhawk	<i>Accipiter nisus</i>	Birds	TQ108927	05/08/2014	05/08/2014	1								x			CMS_A2
1620	Woodcock	<i>Scolopax rusticola</i>	Birds	TQ108927	18/01/2014	18/01/2014	1					x		x	x			BRed;CMS_A2;Herts LD3
1620	Bluebell	<i>Hyacinthoides non-scripta</i>	Higher Plants - Flowering Plants	TQ108927	27/06/1978	27/06/1978	1		x									WCA8
1620	Large-leaved Lime	<i>Tilia platyphyllos</i>	Higher Plants - Flowering Plants	TQ108927	27/06/1978	27/06/1978	1						x					NS-excludes
1620	Slow-worm	<i>Anguis fragilis</i>	Reptiles	TQ114920	28/09/1991	28/09/1991	1		x	x	x							WCA5/9.1k/I;Sect.41;UKBAP
1730	Bluebell	<i>Hyacinthoides non-scripta</i>	Higher Plants - Flowering Plants	TQ104930	26/06/1978	26/06/1978	1		x									WCA8
1740	Eurasian Badger	<i>Meles meles</i>	Terrestrial Mammals (excl. Bats)	TQ097895	27/11/2015	27/11/2015	1		x									PBA
1820	Small Skipper	<i>Thymelicus sylvestris</i>	Invertebrates - Butterflies	TQ114924	15/07/1987	15/07/1987	1									x		Herts Wide Decl (B)
1850	Small Skipper	<i>Thymelicus sylvestris</i>	Invertebrates - Butterflies	TQ115923	15/07/1987	15/07/1987	1									x		Herts Wide Decl (B)
1860	Essex Skipper	<i>Thymelicus lineola</i>	Invertebrates - Butterflies	TQ090930	17/07/2007	17/07/2007	1									x		Herts Wide Decl (B)
1870	Chicory	<i>Cichorium intybus</i>	Higher Plants - Flowering Plants	TQ099932	1995	1995	1					x						RLENG.VU
1910	Essex Skipper	<i>Thymelicus lineola</i>	Invertebrates - Butterflies	TQ094932	10/07/1998	21/07/1999	28									x		Herts Wide Decl (B)
1910	Small Heath	<i>Coenonympha pamphilus</i>	Invertebrates - Butterflies	TQ094932	15/07/1998	15/07/1998	2			x	x	x						Sect.41;UKBAP;RLGB.Lr(NT)
1910	Small Skipper	<i>Thymelicus sylvestris</i>	Invertebrates - Butterflies	TQ094932	10/07/1998	21/07/1999	22									x		Herts Wide Decl (B)
1950	Stag Beetle	<i>Lucanus cervus</i>	Invertebrates - Beetles (Coleoptera)	TQ112928	12/06/2006	12/06/2006	1	x		x	x		x					HSD2p;Sect.41;LBAP;UKBAP;Nb
1980	Great Tit	<i>Parus major</i>	Birds	TQ117922	02/08/2012	02/08/2012	1								x			Bern2
1980	House Sparrow	<i>Passer domesticus</i>	Birds	TQ117922	02/08/2012	02/08/2012	1			x	x	x						Sect.41;UKBAP;BRed
1980	Ring-necked Parakeet	<i>Psittacula krameri</i>	Birds	TQ117922	02/08/2012	02/08/2012	1									x		WCA9i
1980	Robin	<i>Erithacus rubecula</i>	Birds	TQ117922	02/08/2012	02/08/2012	1								x			Bern2
1980	Starling	<i>Sturnus vulgaris</i>	Birds	TQ117922	02/08/2012	02/08/2012	1					x						BRed
1980	Tortoiseshell	<i>Potentilla erecta</i>	Higher Plants - Flowering Plants	TQ117922	15/07/1987	15/07/1987	2					x						RLENG.Lr(NT)
1980	Small Skipper	<i>Thymelicus sylvestris</i>	Invertebrates - Butterflies	TQ117922	02/08/2012	02/08/2012	1									x		Herts Wide Decl (B)
1980	Grass Snake	<i>Natrix helvetica</i>	Reptiles	TQ117922	29/07/1991	29/07/1991	1		x	x	x							WCA5/9.1k/I;Sect.41;UKBAP

Appendix D

Habitats and Flora Species List

Boundary Flora Species Record

Boundary Flora Species Record							
SITE ref. & NAME							
DATES OF SURVEY		SURVEYOR					
Latin name	Common Name						
Description (for reference, delete from final table)		H2	H1	38	H3	40	
Woody species							
Coniferous							
Broadleaved							
<i>Acer campestre</i>	Field maple						
<i>Acer pseudoplatanus</i>	Sycamore						
<i>Aesculus hippocastanum</i>	Horse chestnut						
<i>Alnus glutinosa</i>	Common Alder						
<i>Betula sp.</i>	Birch sp.						
<i>Buddleia spp.</i>	Buddleia						
<i>Carpinus betulus</i>	Hornbeam						
<i>Castanea sativa</i>	Sweet chestnut						
<i>Clematis sp.</i>	Clematis						
<i>Clematis vitalba</i>	Traveller's joy						
<i>Cornus sp.</i>	Dogwood						
<i>Corylus avellana</i>	Hazel						
<i>Crataegus monogyna</i>	Hawthorn						
<i>Cupressus x leylandii</i>	Leylandii						
<i>Euonymus europaeus</i>	Spindle						
<i>Fagus sylvatica</i>	Beech						
<i>Fraxinus excelsior</i>	Ash						
<i>Hedera spp.</i>	Ivy						
<i>Ilex aquifolium</i>	Holly						
<i>Juglans regia</i>	Walnut						
<i>Ligustrum ovalifolium</i>	Garden privet						
<i>Ligustrum vulgare</i>	Wild privet						
<i>Malus sylvestris</i>	Crab Apple						
<i>Populus sp.</i>	Poplar spp.						
<i>Populus tremula</i>	Aspen						
<i>Prunus avium</i>	Cherry						
<i>Prunus spinosa</i>	Blackthorn						
<i>Prunus spp.</i>	Prunus (domesticated)						
<i>Quercus sp.</i>	Oak sp.						
<i>Rhamnus alnus</i>	Alder buckthorn						
<i>Rosa arvensis</i>	Field rose						
<i>Rosa canina spp.</i>	Dog rose						
<i>Rubus fruticosus agg.</i>	Bramble						
<i>Salix spp.</i>	Willow (saplings)						
<i>Sambucus nigra</i>	Elder						
<i>Sorbus aria</i>	Whitebeam						
<i>Sorbus aucuparia</i>	Rowan						
<i>Sorbus torminalis</i>	Wild Service						
<i>Symphoricarpos albus</i>	Snowberry						
<i>Taxus baccata</i>	Yew						
<i>Tilia cordata</i>	Small-leaved lime						
<i>Tilia platyphyllos</i>	Large-leaved lime						
<i>Tilia x europaea</i>	Common lime						
<i>Ulex europaeus</i>	Gorse						
<i>Ulmus glabra</i>	Wych elm						
<i>Ulmus procera</i>	English elm						
<i>Ulmus spp.</i>	Elm						
<i>Viburnum lantana</i>	Wayfaring tree						
Very recent plant							

Appendix E

Bat Survey Report

Introduction

- 1.1. Survey design, data analysis and interpretation set out herein has been undertaken with due consideration for the Bat Conservation Trust (BCT) guidelines 3rd Edition (BCT, 2016).

Legislation

- 1.2. All species of British bats are legally protected under Regulation 43 of the Conservation of Habitats and Species Regulations 2017. These Regulations make it an offence to:
- Deliberately capture, injure, or kill a bat;
 - Deliberately disturb bats, impairing their ability to survive, breed, reproduce or rear/nurture their young;
 - Damage or destroy a breeding site or resting place used by bats; or
 - Be in possession of, transport, sell, exchange or offer to sell/exchange a bat (dead or alive) or any part of a bat.
- 1.3. All bats and their roosts in England, Scotland and Wales were originally protected under the Wildlife & Countryside Act 1981. Subsequent amendments to the legislation for England and Wales has removed bats from most of the provisions of the Act, however it remains an offence to:
- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection; or
 - Intentionally or recklessly obstruct access to any structure or place that a bat uses for shelter or protection.
- 1.4. Disturbance of bats is covered by both the 2017 Regulations and the 1981 Act. Disturbance that impairs survival or successful reproduction would be covered by the Regulations, while disturbance of individual bats within roosts is covered by the Act.
- 1.5. It is important to note that bat roosts are protected throughout the year, regardless of whether or not bats are present at the time. Under the Conservation of Habitats and Species Regulations the offence of damaging or destroying a breeding site or resting place of bats is not subject to any legal defence, i.e. an offence will have been committed even if the damage or destruction occurs accidentally.

Licensing

- 1.6. Where development is proposed that would result in an offence under the Habitats and Species Regulations a European Protected Species (EPS) licence needs to be granted by Natural England to permit an act that would otherwise be unlawful. This provides for a specific derogation from the legislation, to prevent a legal infringement

occurring. To obtain an EPS licence for development it must be demonstrated that the purpose of the act to be licensed is for:

- *“preserving public health or public safety or other imperative reasons of overriding public interest including those of social or economic nature and beneficial consequences of primary importance for the environment” (Regulation 55(2)(e)).*

1.7. In addition Natural England will not grant an EPS licence unless they are satisfied that:

- *“There is no satisfactory alternative” (Regulation 55(9)(a)); and*
- *“The action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range” (Regulation 55(9)(b)).*

Methods

Preliminary Roost Assessment

- 1.8. The aim of the preliminary roost assessment is to assess the potential for, or any evidence of, the presence of roosting bats associated with specific habitat features. Where significant potential for roosting is identified, further bat roost surveys are generally necessary to determine the presence or likely absence of a roost, and to characterise any roost present. The method described below has been followed with due consideration for the current best practice guidelines (Collins, 2016).
- 1.9. A detailed inspection of the exterior of structures at the Site was undertaken to (i) identify any Potential Roost Features (PRFs) and potential bat ingress/egress points, and (ii) locate any evidence of bats such as live or dead specimens, droppings, urine splashes, fur-oil staining, feeding remains (e.g. moth wings) and/or squeaking noises. Equipment used included high-powered torches and close-focusing binoculars, as appropriate.
- 1.10. Where any droppings were present, samples were collected to enable species identification via DNA analysis, if required.

Limitations

- 1.11. Due to health and safety considerations in relation to the Covid-19 outbreak, an internal inspection of the on-site buildings was not undertaken as part of the Preliminary Roost Assessment, and an external inspection only was undertaken. Whilst lack of internal inspection is identified as a limitation, is not considered to have undermined the objectives of the survey since external features alone exhibited potential enough to classify the building as having 'high' bat

roost potential and to warrant a total of three dusk/dawn surveys, in line with BCT guidelines.

Evaluation

1.12. Following the assessments, each structure was assigned one of the following categories in respect of its potential to support roosting bats (adapted from Collins, 2016):

- *Negligible* – no obvious PRFs
- *Low* – a structure with one or more PRFs that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis by large numbers of bats. A tree of sufficient size and age to contain PRFs but none seen from the ground or features seen only with very limited roost potential.
- *Moderate* – a structure or tree with one or more PRFs that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat; but unlikely to support a roost of high conservation status.
- *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 size, shelter, protection, conditions and surrounding habitat.

Dusk Emergence Surveys

1.13. Three dusk emergence surveys undertaken to confirm the presence/likely absence of roosting bats in association with the on-site buildings.

1.14. The positions of the surveyors during the survey are illustrated on the Bat Survey Plan (CSA/5080/101) below.

1.15. The dusk emergence surveys were undertaken for approximately 1.5 hours following British Summer Time (BST) sunset, with due consideration for the BCT good practice guidelines. The surveys were carried out by Tilly Fitzwebster ACIEEM (Natural England Licence REF: 2018-36066-CLS-CLS), Clare Caudwell CECOL MCIEEM (2015-150073-CLS-CLS), Jessica Tait ACIEEM (2020-44643-CLS-CLS) and Aaron White GradCIEEM in suitable weather conditions, as summarised in Table E.4 below.

1.16. During the survey, the surveyors watched for any bats entering parts of the buildings or using key flight lines, equipped with an Elekon BatLogger M detector. A note was made of all bat passes, along with the time, species and any information regarding behaviour, including direction of flight, and activity e.g. foraging/commuting.

1.17. Following the survey all bat calls were downloaded from the BatLoggers and analysed using BatExplorer Software, respectively, to

enable species identification, where possible, and quantitative analysis of the data.

Limitations

- 1.18. Due to health and safety considerations in relation to the Covid-19 outbreak, which meant surveyors were unable to stay in overnight accommodation such as hotels, and the distance required to travel to the Site (1.5hours), pre-dawn surveys were not undertaken. However, three dusk surveys were completed during the optimum survey period (May to August) and the survey effort is considered to be robust in determining the presence or likely absence of a bat roost.

Evaluation

- 1.19. Bat roosts are evaluated in line with Wray *et al.* (2010), which provides guidance on assessing the conservation value of bat roosts according to type and species. This guidance is summarised in the following tables:

Table E.1. Categorising Bats by Distribution and Rarity

Rarity within range	Species
Rarest (under 10,000)	Greater horseshoe Bechstein's Alcathoe Greater mouse-eared Barbastelle Grey long-eared
Rarer (10,000 – 100,000)	Lesser horseshoe Whiskered/Brandt's Daubenton's Natterer's Leisler's Noctule Nathusius' pipistrelle Serotine
Common (over 100,000)	Common pipistrelle Soprano pipistrelle Brown long-eared

Table E.2. Categorising Bats by Distribution and Rarity

Geographic frame of reference	Roost types
International	SAC sites
National	Sites meeting SSSI guidelines Maternity sites of rarest species

Geographic frame of reference	Roost types
Regional	Large swarming sites Mating sites for rarer/rarest species Maternity sites of rarer species Significant hibernation sites for rarer/rarest species ,or all species assemblages
County	Feeding perches of rarer/rarest species Small numbers of rarer/rarest species (not maternity sites) Hibernation sites for small numbers of common/rarer species Maternity sites of common species
Local (Parish or District)	Feeding perches Individual bats of common species Small numbers of common species (not maternity sites) Mating site of common species

Results

Preliminary Roost Assessment

Structures

1.20. The results of the building inspections are presented in Table E.3 below.

Table E.3. Results of Preliminary Roost Assessment (structures)

Building Ref.	Building Description	External features/ evidence	Internal features/ evidence	Bat roost potential
B1	Two storey residential dwelling of brick construction with clay tiled hipped roofs. Hanging tiles on all elevations, two dormer windows and a chimney.	Gaps beneath hanging tiles, raised and missing roof tiles providing roosting opportunities and access points. Some areas of lifted lead flashing and missing mortar along the ridge of the roof.	Not accessed. Loft space present.	High
B2	Single-storey garage/outbuilding of brick construction. Split into two sections, with the original structure situated at the western end and a more modern extension at the eastern end. The western section of the garage has a hipped clay-tiled roof with a flat roof covered in bitumen felt at the eastern end.	Raised/broken and missing roof tiles, gaps in mortar and gaps beneath eaves providing roosting opportunities and access points.	Not accessed.	High

Dusk Emergence Surveys

Dusk Survey 15 July 2020

- 1.21. No bats of any species were seen by the surveyors to return to roost in association with either building during the dusk emergence survey. One common pipistrelle was thought to have emerged from Building 2, however the origin of the bat was not seen and it is considered that the bat flew over the building, rather than emerged out of it.
- 1.22. The calls of two bat species were recorded during the survey: common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus*. Each species is discussed in turn below.
- 1.23. Common pipistrelle bats were sporadically seen by the surveyors between 21:28hrs and 22:11hrs. These passes were mostly associated with bats foraging around the gardens of the Site and crossing the Site between Gatehill Road, Northwood Road and houses to the east. Between 22:11hrs and 22:32hrs sporadic passes of soprano pipistrelle were also recorded, however the bats were heard but not seen. The final bat pass recorded was at 22:52hrs by a common pipistrelle bat.

Dusk Survey 29 July 2020

- 1.24. No bats of any species were seen by the surveyors to return to roost in association with either building during the dusk emergence survey. The calls of three bat species were recorded during the survey: common pipistrelle, soprano pipistrelle and 'big bat' *Nyctalus* sp.
- 1.25. Common pipistrelle bats were sporadically recorded by all three surveyors between 21:11hrs and 22:28hrs. Passes by this species were mostly associated with bats crossing the Site between Gatehill Road, Northwood Road and houses to the east and foraging around the gardens of the Site. Up to three common pipistrelle bats were recorded at any one time.
- 1.26. At 21:30hrs a soprano pipistrelle bat was recorded flying west to south by Surveyor B. This was followed by another soprano pipistrelle bat at 21:33hrs recorded flying east to west across the Site by Surveyors B and C. Further intermittent passes by soprano pipistrelle were recorded between 21:35hrs and 21:50hrs by Surveyor B.
- 1.27. A noctule bat was recorded by Surveyor B at 22:06hrs; however the bat was only heard and not seen. This was followed by another pass by a 'big bat' at 22:19hrs which was heard but not seen by both Surveyors A and C.
- 1.28. Weather conditions experienced over all emergence/re-entry surveys are shown in Table E.4 below. Full results tables presenting all of the observations made by the surveyors are provided in Tables E.5, E.6 and

E.7 below. The Bat Survey Plan CSA/5080/101 gives the indicative locations of the surveyors.

Dusk Survey 12 August 2020

- 1.29. No bats of any species were seen by the surveyors to return to roost in association with either building during the dusk emergence survey. The calls of two bat species were recorded during the survey: common pipistrelle and soprano pipistrelle. Each species is discussed in turn below.
- 1.30. The first bat pass recorded was of a common pipistrelle at 20:55hrs recorded by Surveyor B. The bat was seen flying into the Site from the north and foraged around the garden until 20:58hrs.
- 1.31. Common pipistrelles were recorded intermittently by all three surveyors between 21:00hrs and 21:49hrs. Up to two common pipistrelle bats were recorded at any one time. Soprano pipistrelles were also recorded by Surveyors B and C, with the first soprano pipistrelle pass recorded at 21:11hrs. The bat was seen but not heard by Surveyor C and seen by Surveyor B to fly into the Site from the and foraged around the garden in the eastern extent of the Site until 21:13hrs. A second pass by soprano pipistrelle was recorded at 21:49hrs by Surveyor C. The bat was heard but not seen.
- 1.32. The majority of bat activity was associated with bats foraging around the gardens of the Site and commuting across the Site from the north, south or west. A lower number of contacts were recorded during this survey than the first two surveys, however a recent spate of hot weather is considered to have impacted on the bat activity.

Table E.4. Weather conditions during emergence surveys

Survey Date (2018)	Sunset / Sunrise	Survey Duration	Temp (°C)	Rain	Cloud Cover (oktas; n/8)	Wind (Beaufort Scale)
			Start/End		Start/End	Start/End
15 July	21:12	20:57-22:52	17/19	No rain	8/8	0/1
29 July	20:54	20:40-22:24	22/20	No rain	6/8	1/1
12 Aug	20:30	20:15-22:00	29/27	No rain	1/1	6/8

Table E.5. Dusk Emergence Survey 15 July 2020

Time activity recorded		Sunset:	21:12		
Start	End	Species	Surveyor*	Bat behaviour	
Survey Start: 20:57					
21:28	22:52	Common pipistrelle	A, B, C	Multiple contacts- Up to two bats observed sporadically foraging around gardens and crossing Site from Gatehill Road to the west, to off-site dwellings to the east, as well as crossing the Site from South to East and circling around	

				the Site.
22:11	22:32	Soprano pipistrelle	A, B, C	Multiple contacts- Heard not seen, mostly brief passes.
Survey End: 22:52				

Abbreviations: HNS = Heard, Not Seen

* 3 surveyors present - locations A, B & C

Buildings surveyed: B1 and B2

Table E.6. Dusk Emergence Survey 29 July 2020

Time activity recorded		Sunrise:	20:54	
Start	End	Species	Surveyor*	Bat behaviour
Survey Start: 20:40				
21:11	22:28	Common pipistrelle	A,B,C	Multiple contacts- Up to three bats observed sporadically foraging around gardens and crossing Site from Gatehill Road to the west, to off-site dwellings to the east, as well as crossing the Site from South to East and circling around the Site.
21:30	-	Soprano pipistrelle	B	1 contact- bat observed flying west to south across site
21:33	-	Soprano pipistrelle	B, C	1 contact – bat observed flying east to west across the Site
21:35	21:50	Soprano pipistrelle	B	Multiple contacts- intermittent passes, all HNS
22:06	-	'Big bat'	B	1 contact- HNS
22:19	-	'Big bat'	A, C	1 contact- HNS
Survey End: 22:24				

Abbreviations: HNS = Heard, Not Seen

* 3 surveyors present - locations A, B & C

Buildings surveyed: B1 and B2

Table E.7. Dusk Emergence Survey 12 August 2020

Time activity recorded		Sunset:	20:30	
Start	End	Species	Surveyor*	Bat behaviour
Survey Start: 20:15				
20:55	20:58	Common pipistrelle	B	Multiple contacts- single bat observed flying into the Site from the north and foraged around the garden
21:00	21:49	Common pipistrelle	A, B, C	Up to 2 bats recorded at any one time. Activity associated with bats commuting across the Site from the south towards the north /west and from the west towards the south. Bat activity also associated with foraging bats in the gardens.

21:11	21:13	Soprano pipistrelle	B	Multiple contacts recorded of a single bat- seen to enter the Site from the south and foraged around the garden in the eastern extent
21:49	-	Soprano pipistrelle	C	1 contact- HNS
Survey End: 22:00				

Abbreviations: HNS = Heard, Not Seen

* 3 surveyors present - locations A, B & C

Buildings surveyed: B1 and B2



Dixies Barns, High Street, Ashwell,
Hertfordshire SG7 5NT

t 01462 743647

e ashwell@csaenvironmental.co.uk

w csaenvironmental.co.uk

Suite 1, Deer Park Business Centre, Eckington,
Pershore, Worcestershire WR10 3DN

t 01386 751100

e persshore@csaenvironmental.co.uk

w csaenvironmental.co.uk

Office 20, Citibase, 95 Ditchling Road,
Brighton BN1 4ST

t 01273 573871

e brighton@csaenvironmental.co.uk

w csaenvironmental.co.uk