APPENDIX D – ECOLOGICAL APPRAISAL 2015

NHS property Services

Northwood and Pinner Hospital

Extended Phase 1 Habitat Survey

December 2015

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Executive Summary

Site Description and Scope of Works		
Extended Phase 1 Habitat Survey of Northwood and Pinner Hospital, north-west London HA6 1DE. The centre of the site is located at grid reference TQ 1000 9066. The site consists of a disused hospital along with a car park, landscape planting, and a small woodland. The proposed development is not yet finalised, however the site will be cleared, including demolition of the buildings, and removal of most/all of the existing habitat		
Potential Constraints	**Yes**	**No**
Bats		
Has the site been assessed for bats?	✓	
Are there any structures or trees on site which have the potential to support roosting bats? (see section 4.3.3)	✓	
Breeding Birds including Barn Owls		
Has the site been assessed for breeding birds including barn owls?	✓	
Will areas of hedgerow, scrub, woodland, trees or other features likely to be used by nesting birds be affected by the proposal? (see section 4.3.5)	✓	
Badgers		
Has the site been assessed for badgers?	✓	
Is there any evidence of badgers on or near the application site including setts, foraging or commuting? (see section 4.3.5)		✓
Great crested newts		
Has the site been assessed for great crested newts?	✓	
Is there suitable habitat for great crested newts on, or close to the application site? (see section 4.3.1)		✓
Reptiles		
Has the site been assessed for reptiles?	✓	
Is there suitable habitat on the site for reptiles? (see section 4.3.2)	✓	
Other features of nature conservation interest		
Does the application site support Habitats of Principal Importance or Local Biodiversity Action Plan Priority Habitats?		✓
Does the application site support Species of Principal Importance or Local Biodiversity Action Plan Species?	✓	
Likely to support bats and house sparrow		
Have details of biodiversity enhancements been included with the application?	✓	
Recommendations	**Yes**	**No**
Are further surveys recommended to inform the ecological impact assessment?	✓	
• Bat emergence and return surveys; • Follow an appropriate strategy to avoid impacts on reptiles; and • Nesting bird survey (dependant on the season).		
Is mitigation (including avoidance/compensation) and enhancement recommended?	✓	
• Potentially if bats are found to be roosting in the building or trees on site; • Habitat creation for reptiles; • Treatment of invasive plant species before removal (if necessary); and • Installation of bird boxes.		

1.0 Introduction

1.1 Background

WYG were commissioned by NHS Property Services Ltd in August 2015 to carry out an Extended Phase 1 habitat survey of Northwood and Pinner Hospital, Pinner Road, Northwood, HA6 1DE ('the site').

The survey and report were completed by Tim Bradford, Principal Ecologist CEnv MCIEEM.

1.2 Site Location

The site consists of the hospital and surrounding grounds including access roads, car parks and gardens. The site centre is at Ordnance Survey grid reference TQ 1000 9066. The area immediately surrounding the site is urban, i.e. housing. However it is close to the edge of greater London and less than 200 m to the north and south are large open green spaces.

1.3 Development Proposals

Details of the proposed development are not yet available. However it will involve demolition of the buildings and clearing most if not all of the habitats remaining. The new development is likely to be mostly residential.

1.4 Survey & Reporting Objectives

The ecological investigations undertaken by WYG included the following objectives:

- A desk study to obtain existing information on statutory and non-statutory sites of nature conservation interest and records of protected/notable species within the site and its environs;
- An Extended Phase 1 habitat survey involving a walkover of the site to record habitat types and dominant vegetation, including any invasive species and a reconnaissance survey for evidence of protected fauna or habitats capable of supporting such species;
- An investigation of the buildings and trees for their potential to support bats, including a survey of external features; and
- An assessment of the potential ecological constraints to the proposed works at the site and recommendations for further survey, avoidance, mitigation and enhancement, where appropriate.

2.0 Planning Policy & Legislation

An overview of planning policy and legislation applying to Northwood and Pinner Hospital is provided below.

2.1 National Planning Policy

The National Planning Policy Framework (NPPF) was adopted in March 2012. Section 11 (outlined in Appendix B) of the NPPF, Conserving and Enhancing the Natural Environment, replaces Planning Policy Statement 9 (PPS9): Biodiversity and Geological Conservation. However, government Circular 06/2005, Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System, which relates to PPS9 remains valid and is referenced within Paragraph 113 of the NPPF.

ODPM Circular 06/2005 states that the presence of protected species is a material consideration in the planning process. The NPPF also states that '*planning policies should promote the protection of priority species populations linked to national and local targets*'.

Furthermore, central and local government policy now points towards ecological enhancement on development sites. The NPPF considers enhancement in the statement '*The planning system should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes….and minimising impacts on biodiversity and providing net gains in biodiversity*'.

2.2 Local Planning Policy

Northwood and Pinner Hospital lies within the London Borough of Hillingdon ('the borough') and as such is subject to the London Plan as well as the borough's Unitary Development Plan (UDP) and Local plan.

The London Plan (updated 2015) contains several policies relevant to biodiversity. Of particular note, Policy 7.19 states: *Development Proposals should wherever possible, make a positive contribution to the protection, enhancement, creation and management of biodiversity* and *prioritise assisting in achieving targets in biodiversity action plans (BAPs)*.

Within the borough's UDP (adopted 1998, with policies saved in 2007), Section 4 deals with *Ecology and Nature Conservation.* Within that section, policy EC1 states: *The local planning authority will not permit development which would adversely affect the integrity of Sites of Special Scientific Interest, or be unacceptably detrimental to Sites of Metropolitan or Borough (Grade I) Importance for Nature Conservation, designated Local Nature Reserves and other nature reserves. If development is proposed on or in the near vicinity of such sites, applicants must submit an ecological assessment where considered appropriate by the local planning authority to demonstrate that the proposed development will not have unacceptable ecological effects.*

Policy EC2 goes on: *The local planning authority will promote nature conservation as a positive land use and will take nature conservation interests into account in considering proposals for development of land*. Finally EC5 states: *In determining planning applications the local planning authority may require certain on-site ecological features to be retained in new developments and seek to enhance the nature conservation and ecological interest of sites or create new habitats*.

The borough's Local Plan Part 1 was adopted in 2012 also makes provision for ecology in its policies. Policy EM7 states ... *Hillingdon's biodiversity and geological conservation will be preserved and enhanced with particular attention given to:*

- *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;* and
- *The provision of biodiversity improvements from all development, where feasible.*

2.3 Legislation

Specific habitats and species receive legal protection in the UK under various European and domestic legislative provisions, including:

- The Conservation of Habitats and Species Regulations 2010 (as amended);
- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Countryside and Rights of Way (CRoW) Act 2000;
- The Natural Environment and Rural Communities (NERC) Act 2006; and
- Wild Mammals (Protection) Act 1996.

Where relevant, this report takes account of the legislative protection afforded to specific habitats and species.

2.4 Biodiversity Action Plans (BAP)

2.4.1 UK Post-2010 Biodiversity Framework

The Environment Departments of all four governments in the UK work together through the Four Countries Biodiversity Group. Together they have agreed, and Ministers have signed, a framework of priorities for UK-level work for the Convention on Biological Diversity. Published on 17 July 2012, the 'UK Post-2010 Biodiversity Framework' covers the period from 2011 to 2020.

Although the UK Post-2010 Biodiversity Framework does not confer any statutory legal protection, in practice many of the species listed already receive statutory legal protection under UK and / or European legislation. In addition, the majority of Priority national (English) BAP habitats and species are now those listed as Habitats and Species of Principal Importance in England (listed under Section 41 (S41) of the NERC Act 2006). All public bodies have a legal obligation or 'biodiversity duty' under Section 40 of the NERC Act 2006 to conserve biodiversity by having particular regard to those species and habitats listed under S41. For the purpose of this report, habitats and species listed under S41 of the NERC Act are referred to as having superseded the UK BAP.

2.5 Local Biodiversity Action Plan

The site is covered by the London Biodiversity Action Plan (BAP). This includes a Habitat Action Plan for Parks and Urban Greenspaces, as well as listing Built Structures under *Other Important Habitats*. There are Species Action Plans written for bats and house sparrow. BAP habitats and species are not necessarily legally protected, however they are of relevance to, and often referred to in, planning policy (e.g. within Policy 7.19 of the London Plan).

3.0 Methodology

3.1 Desk Study

3.1.1 Local Records Centre

Information was gathered from Greenspace Information for Greater London (GIGL), the ecological records centre covering Northwood and Pinner. This information regarded the presence of non-statutory nature conservation designations and protected and notable species within 2 km of the proposed development site. Only relatively recent records (i.e. from no earlier than 2005) have been included in the assessment unless stated otherwise.

3.1.2 Online Resources

A search for statutory sites designated for their nature conservation value within 2km of the site was made of Natural England's interactive, web-based MAGIC (Multi Agency Geographic Information for the Countryside) database.

This desk study has not included searching for or assessment of tree preservation orders (TPO's), conservation areas or other non-biodiversity based designations.

3.2 Field Surveys

3.2.1 Habitats

The vegetation and habitat types within the site were noted during the walkover survey in accordance with the categories specified for a Phase 1 Vegetation and Habitat Survey (Joint Nature Conservation Committee, 2010). Dominant plant species were recorded for each habitat present.

3.2.2 Protected and Notable Species

The site was inspected for evidence of and its potential to support protected or notable species, especially those listed under the *Conservation of Habitats and Species Regulations 2010* (as amended), the *Wildlife & Countryside Act 1981* (as amended), including those given extra protection under the *Natural Environment and Rural Communities (NERC) Act 2006* and *Countryside & Rights of Way (CRoW) Act 2000*, and listed on the local Biodiversity Action Plans.

The following species were considered:

Great crested newt

The site was appraised for its suitability to support great crested newts. The assessment was based on guidance outlined in the Joint Nature Conservation Committees' published *Herpetofauna Workers'*

Manual (Joint Nature Conservation Committee, 2003) and the *Great Crested Newt Conservation Handbook* (Langton, Beckett & Foster, 2001). The ponds on or within 500 m of the site, connected by suitable habitat, were assessed by a Habitat Suitability Index (HSI). This is a matrix which qualifies the value of the water bodies surveyed for great crested newts. The value given expressed as poor-excellent represents how likely a water body is to support great crested newts. Therefore a good pond is more likely to support great crested newts than an average, and so on (Oldham *et al*. 2000).

Reptiles

The site was appraised for its suitability to support reptiles. The assessment was based on guidance outlined in the Joint Nature Conservation Committees' published *Herpetofauna Workers' Manual* (Joint Nature Conservation Committee, 2003).

Bats

The buildings/trees within the site boundary were appraised by an experienced ecologist from WYG for their suitability to support breeding, resting and hibernating bats using survey methods based on those outlined in the Bat Conservation Trust's *Bat Surveys: Good Practice Guidelines* (2012) and English Nature's *Bat Mitigation Guidelines* (2004).

Badgers

The site was surveyed for evidence of badger setts or other badger activity such as paths, latrines or signs of foraging. Methodologies used and any setts recorded were classified according to published criteria (Harris, Cresswell & Jefferies, 1989). As the site is in an urban area, restricting movement for any badgers which may use the area, the survey for badgers was limited to the site boundary.

Other Species

The site was also appraised for its suitability to support other protected or notable fauna including mammals, birds and invertebrates in accordance with the Institute for Ecology and Environmental Management's *Guidelines for Preliminary Ecological Appraisal* (2012). Evidence of any current or historical presence of such species was recorded.

3.3 Invasive Species

The site was searched for evidence of invasive plant species, such as Japanese knotweed *Fallopia japonica*, Himalayan balsam *Impatiens glandulifera*, giant hogweed *Heracleum mantegazzianum*, wall cotoneaster *Cotoneaster horizontalis*, and rhododendron *Rhododendron ponticum* (see Appendix A Table A2 for full list).

3.4 Limitations

The comprehensiveness of any ecological assessment will be limited by the season in which surveys are undertaken. This survey was undertaken in August when many plants are flowering and/or in leaf. Therefore, a robust classification of the habitats was possible.

Two areas were surrounded by the hospital forming small courtyards. During the August visit these could not be accessed. However on the follow-up visit for the bat assessment (September 2015, *Bat Emergence and Return Surveys and Internal Building Assessment* WYG, 2015) they could be accessed and the habitats assessed. Therefore this has not caused any limitation to the overall survey.

Not all of the land within 30 m could be accessed for badgers. However the areas around were visible from the site through fences. Therefore lack of off-site access was not considered a limitation to the survey.

To determine presence or likely absence of protected species usually requires multiple visits at suitable times of the year. As a result, this survey focuses on assessing the potential of the site to support species of note, which are considered to be of principal importance for the conservation of biodiversity with reference to the National Planning Policy Framework (NPPF, 2012), especially those given protection under UK or European wildlife legislation.

This report cannot, therefore, be considered a comprehensive assessment of the ecological interest of the site. However, it does provide an assessment of the ecological interest present on the day of the visit and highlights areas where further survey work may be recommended.

The details of this report will remain valid for a period of two years from the survey (i.e. until August 2017). Beyond this period, if works have not yet been undertaken, it is recommended that a new review of the ecological conditions is undertaken.

4.0 Baseline Conditions

4.1 Designated Sites

One statutory site, designated for its nature conservation value was found within 2 km of the site. This is Ruislip Woods Site of Special Scientific Interest (SSSI) and National Nature Reserve (NNR), which is 0.96 km south-west of the site. This area, with large sections of ancient semi-natural woodland, includes the largest unbroken block of woodland in Greater London. The woodland and common making up Ruislip Woods includes a wide range of flowering plants. These in turn support nationally rare invertebrates and a diverse range of breeding birds.

There are 17 Sites of Importance for Nature Conservation (SINC) within 2 km of the site. These non-statutory sites designated for their nature conservation value are graded into three tiers:

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

Brief details of each site are given in Table 1. Further information can found in the data search (Appendix B).

Table 1 Non-statutory designated sites within 2 km

Designation	Site Name	Distance & Direction	Summary of features
Borough Grade II	Hog's Back Open Space (formerly Borough Hill)	0.18 km north-east	A hillside site where narrow paths wind through dense woodland, grassland and scrub.
Borough Grade I	Haste Hill Golf Course, Northwood Golf Course and Northwood Park	0.33 km South-west	Golf courses close to Ruislip Woods, with woodland and grassland areas.
Borough Grade II	Potter Street Hill	0.71 km North-east	A meadow, spinney and other habitats within the grounds of St John's School.
Borough Grade I	Haydon Hall Meadows	0.72 km South east	A series of lightly cattle-grazed meadows, an orchard and river corridor in the grounds of Haydon Hall.
Borough Grade II	St Vincent's Hospital Meadows	0.84 km south-west	Two fields, one each side of St Vincent's Hospital, rich in butterflies and grasshoppers.
Metropolitan	Potter Street Hill North Pasture	0.95 km North	A small field of flower-rich grassland with perhaps the largest population of devil's-bit scabious in

Designation	Site Name	Distance & Direction	Summary of features
			London.
Metropolitan	Ruislip Woods and Poor's Field	0.96 km South-west	One of London's two National Nature Reserves, this site includes a large area of ancient woodlands, as well as heathland and grassland.
Borough Grade I	Pinnerwood Park and Ponds	1.05 km North-east	A large private golf course with an ancient wood, flower-rich acid grassland and a number of ponds.
Borough Grade II	Northwood Railway Cutting	1.11 km North-west	Wide banks on both sides of railway lines at Northwood.
Borough Grade II	Grim's Ditch and Pinner Green	1.27 km East	Woodland associated with ancient earthworks, combining archaeological and historic interest with good wildlife habitat.
Borough Grade II	Fore Street Meadows	1.34 km South	Two grazing fields, hedgerow and a section of public footpath situated on the east margin of Park Wood.
Local	River Pinn near Eastcote	1.52 km South	The River Pinn flows through a series of open spaces, forming a green corridor.
Borough Grade II	Gravel Pit, Northwood	1.54 km North-west	Heavily wooded gravel diggings, excellent for quiet walks.
Borough Grade II	The Grail Centre	1.69 km East	The grounds of a religious retreat with a number of wildlife-friendly features.
Borough Grade II	Old Pumping Station Field	1.85 km South-west	A large area of rich grassland with good native hedgerow boundaries.
Local	River Pinn at West Harrow	1.95 km East	An attractive river corridor with a good range of wildlife habitats.

4.2 Habitats

4.2.1 Plantation Broadleaved Woodland

Photo 1: The broadleaved woodland (eastern boundary)

Within the south-east corner of the site and along the eastern boundary there were patches of woodland. These all appeared to have been planted and were a mix of species including oak *Quercus robur*, ash *Fraxinus excelsior*, sycamore *Acer pseudoplatanus* and common lime *Tilia x Europaea*. The understorey was dominated by bramble *Rubus fruticosus* agg, with holly *Ilex aquifolium* and elder *Sambucus nigra* frequently encountered.

4.2.2 Scattered trees

Photo 2: Scattered trees

Around the site there were individual or small clumps of trees. Where these were growing they were mostly growing through amenity grassland or hard standing. Trees within this habitat included ash, hawthorn *Crataegus monogyna* and ornamental cherry *Prunus* spp.

4.2.3 Amenity grassland

Photo 3: Amenity grassland

This habitat covered large parts of the centre and east of the site. The grass was quite short (<50 mm). At the time of the survey many of the plants were in flower. Grass species included perennial rye grass *Lolium perenne*, creeping bent *Agrostis stolonifera* and red fescue *Festuca rubra*. Other herbaceous species included yarrow *Achillea millefolium*, daisy *Bellis perennis*, lesser celandine *Ranunculus ficaria* and bird's-foot trefoil *Lotus corniculatus*.

4.2.4 Species-rich hedgerow (defunct)

Photo 4: Species-rich hedgerow

Along the front (south) of the site is a short (approximately 15 m) stretch of hedgerow. For its length there is a high number of woody species. The species found included ash, hawthorn, sycamore, honeysuckle *Lonicera periclymenum*, copper beech *Fagus sylvatica* f. *purpurea* and fig *Ficus carica*. Whilst the hedgerow has a good diversity of plants, it is adjacent to a busy road, and isolated from other habitats which reduces its value to wildlife. It was *defunct* under Phase 1 classification as it is only a short section and not stock-proof.

4.2.5 Species-poor hedgerow

Photo 5: The species poor Leyland cypress hedge

Along the northern boundary there was a Leyland cypress hedge *Cupressocyparis x leylandii*. This plant has shaded out other competitors making the hedgerow relatively species poor.

4.2.6 Introduced Shrubs

Photo 6: Sections of introduced shrub

Around the borders of the amenity grassland, there were several patches of introduced shrubs. These were no longer maintained, and had overgrown the adjacent grass or pathways. The species within these were predominantly non-native plants and included butterfly bush *Buddleja davidii* , variegated box *Buxus sempervirens variegate*, wall cotoneaster and dog rose *Rosa canina.*

4.2.7 Buildings

The buildings on site comprise the main hospital building with various extensions, brick and wooden sheds to the north, and a substation to the south-east. As buildings can support roosting bats they are discussed further in Section 4.3.

4.2.8 Hard standing

Photo 7: Part of the hard standing (car park)

The hard standing within the site comprised car parking, access roads and pathways. These were made from tarmac or concrete and unsuitable for plants to grow on or through.

4.3 Protected & Notable Species

4.3.1 Great Crested Newts

Desk Study

There are records of great crested newt within 2 km of the site. The nearest is 1.4 km north-west of the site (latest record is from 2011). Although the precise location of this record is not given, the area where it was found is disconnected from the site by dense housing and roadways.

Field Surveys

HSI Assessment

No water bodies were found within 500 m of the site that were connected by suitable habitat. No HSI assessment was therefore carried out.

Terrestrial habitat

The habitat on site was mostly short grassland, buildings and hard standing, all of which are unsuitable for great crested newts (though the newts could commute over grass and hard surfaces). The woodland provided more suitable habitat, with the understorey providing cover, and the dead wood from the trees forming potential refugia or hibernacula.

Overall, as there were no potential breeding ponds on or near the site, it is considered unlikely that great crested newts will use it.

4.3.2 Reptiles

Desk Study

Records of slow worm *Anguis fragilis*, common lizard *Zootoca vivipara*, grass snake *Natrix natrix, and* adder *Vipera berus* were returned within 2 km of the site. The first three were found 1.76 km south west of the site (latest record 2010), which is likely to be all from the same site. The area where these reptiles were found is disconnected from the site by unsuitable habitat (Pinner Road). The record for adder does not have a location as this species suffers persecution from humans. The most recent date is given as 2010.

Field survey

The majority of the habitat (i.e. the built structures and hard standing) on the site was low value for reptiles. Reptiles could bask on the periphery of the hard standing, but it would provide little cover from predators. The grassland was slightly better, providing some more cover and potential and invertebrate food source, however it is still unlikely to provide significant cover from predators. The most likely areas on the site to support reptiles are at the boundaries of two habitats e.g. amenity grassland and introduced shrubs, where reptiles could bask in short vegetation and escape to taller vegetation. Such areas cover only a small portion of the site, therefore the opportunities for reptiles are limited. As the site is in a dense urban area, and it is disconnected from large areas of other suitable habitats and source populations, the site has low potential for reptiles.

4.3.3 Bats

Desk study

Records of seven species of bat were found within 2 km of the site. The date and distance from the site of the nearest record of each species is given in Table 2.

Table 2 Nearest record of each species of bat found within 2 km of the site

Latin name	English name	Distance and direction	Date
Pipistrellus pipistrellus	Common pipistrelle	1.84 km South-west	2007
Pipistrellus pygmaeus	Soprano pipistrelle	1.84 km South-west	2007
Eptesicus serotinus	Serotine	1.84 km South-west	2006
Myotis daubentonii	Daubenton's bat	1.84 km South-west	2006
Nyctalus leisleri	Leisler's bat	1.84 km South-west	2006
Nyctalus noctula	Noctule	1.84 km South-west	2006
Plecotus auritus	Brown long-eared bat	1.97 km North	2005

Field survey

There were five buildings, or sections of buildings within the site. A sixth structure, a burned out shed was completely unsuitable for bats. Likewise a seventh was a smashed-up shed, and neither were considered for their bat roost potential. The actual hospital building will be considered as three separate structures. For locations of each building/building section see Figure 2.

Main Building (B1)


Photos 8 and 9: The south (left) and west (right) elevations of the Main Building viewed from the south

The Main Building was constructed in the 1920's. The structure was brick mostly covered with a ceramic tiled, pitched roof. There are sections of flat roof on the north, west and east elevation. These were covered with roofing felt, and with the exception of the west elevation, had a parapet wall running around the edges.

The window frames were almost all wooden, with a few modern uPVC frames. Along parts of the western and eastern elevations there were ceramic hanging tiles. These hanging tiles and the ones on the roof were in a poor condition with several having broken or slipped out. This allowed potential access for bats to get under the roof tiles.

No evidence of bats (e.g. droppings or staining) was noted.

Given the building's opportunities for bats to roost and its urban setting, the Main Building had **moderate** bat roost potential.

North Annex (B2)

Photos 10 and 11: The North Annex viewed from the north-west (left) and east (right)

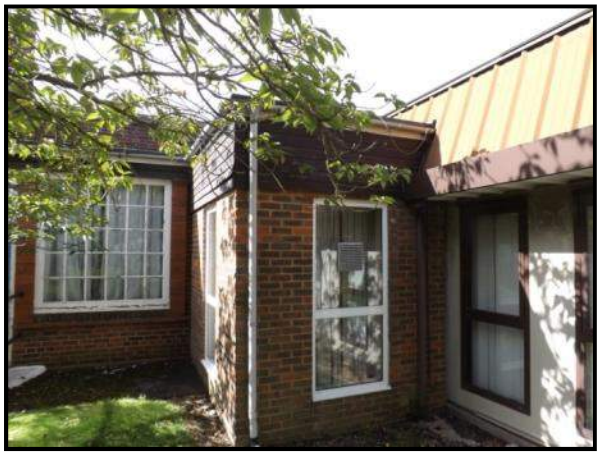
The North Annex is attached to the east side of the Main Building. It is a similar style of structure to the Main Building, and appeared to have been built at the same time or shortly after. It is a brick structure, with a ceramic-tiled roof. It had wooden framed windows, and on the roof there was a door in a dormer structure leading to the roof void.

There were a few slipped or broken tiles on the roof. These provided access under the tiles and potentially into the roof void.

No evidence of bats was found.

Given the building's opportunities for bats to roost and its urban setting, the North Annex had **moderate** bat roost potential.

South Annex (B3)




Photos 12 and 13: The southern elevation of South Annex showing the brick section (left) and plastic walled section (right)

The South Annex was also joined to the Main Building on that structure's east side. It appeared to be much more modern than the Main Building and North Annex, most likely to be no more than 40 years old. It consists of a plastic-walled section with a metal roof, and a brick section which had a felt rood and wood cladding around the eaves. The structure of the building was in good condition, with no potential bat access points noted in the South Annex.

No evidence of bats was noted.

Given the good condition of the South Annex it had **negligible** bat roost potential.

Shed (B4)

Photo 13: The Shed viewed from the south-east

To the north-east of the main building there was a brick shed. The roof was formed of concrete covered with roofing felt. Some of the windows had been broken allowing a view inside the structure. There was no opportunity for bats to roost in the building or on the roof.

No evidence of bats was seen.

Given the lack of opportunities for bats, the Shed had **negligible** roosting potential.

Substation

Photo 14: Substation

At the edge of the woodland in the south-east of the site there was a small building, likely to house a substation or other electrical equipment. It was constructed from brick with a flat felt roof. On the west elevation was a wooden louvered door. The Substation was in a relatively good condition, and there appeared to be no gaps or crevices suitable for bats to roost.

No evidence of bats was seen.

Given the lack of opportunities for bats, the Substation had **negligible** roosting potential.

Trees

The trees within the site were all immature or semi-mature. Some had small crevices or holes in the trunk. However none of the trees on the site had features of sufficient size to support roosting bats. All the trees were either Category 3 (Hundt 2012), i.e. they had **negligible** bat roost potential.

Foraging and commuting

The landscaped habitats on the site (woodland, hedgerows, grassland and shrub) may support the invertebrates on which bats feed. The site also forms part of the green network of gardens and small parks which join up the larger green spaces around Northwood. Therefore bats may commute through on their way between feeding areas or between foraging sites and their roosts. The site therefore may be of value for foraging and commuting bats.

4.3.4 Badgers

Desk study

No records of badgers were returned from within 2 km of the site.

Field survey

The site provided suitable habitat for badgers, with woodland and some of the shrubs providing cover for them to build their setts. The amenity grassland was likely to provide a source of worms and other badger prey. During the survey no evidence of badgers was noted, which would include sett entrances, foraging 'snuffle' holes, latrines or badger hairs. All areas of the site were accessible, and all areas of suitable habitat (i.e. not hard standing or buildings) within 30 m of the site, were visible from the boundary. The site is therefore unlikely to be used by badgers.

4.3.5 Other species

Nesting birds

Desk study

Sixty-two species of bird have been recorded within 2 km of the site. Many of these are approximately 1- 2 km south-west of the site which means they are likely to be associated with Ruislip Lido or the woodlands nearby. However there are several species which could utilise the site including house sparrow *Passer domesticus*, herring gull *Larus argentatus* starling *Sturnus vulgaris* and song thrush *Turdus philomelos*; all four of these species are on the red list of Birds of Conservation Concern (RSPB 2009).

Field survey

No birds were noted nesting during the survey, however it was late in the season and their young may have already fledged. The site offers a variety of nesting possibilities, both natural and man-made. These include some of the more mature trees which have many braches making up a network of support for nests, and the flat roof of the hospital building which provide a platform away from predators.

4.4 Invasive species

Wall cotoneaster *Cotoneaster bullatus* and butterfly bush *Buddleia sp.* were found within the introduced shrubs (Target Note 1, Figure 1). Both of these are invasive species in London.

5.0 Constraints & Opportunities

5.1 Designated Sites

The designated sites are all sufficiently distant from the site so to avoid direct impacts during works at the site and no pathways exist between the development site and the designated site. This includes demolition of the existing buildings and construction of new structures on the site. There is likely to be a slight increase in traffic during construction, but given that the area is already heavily built up, the main access routes are already busy. Therefore any increased impacts on designated sites near to the access routes is likely to be insignificant.

The site lies within a SSSI Impact Risk Zone on the MAGIC map. This means where a development is greater than no. 100 residential units, Natural England should be consulted. The space available on the site is limited (approximately 0.6 ha), therefore it is unlikely that such a high number of dwellings will be built.

Following the construction of residential properties there will be an increase in the population and therefore visitors to the nearby green spaces. The nearest designated site is the Hog's Back Open Space to the north-east, and this is the most likely to be visited. The site description does not include reference to ground nesting birds or other animals vulnerable to disturbance by dogs. Therefore there is not expected to be a significant impact on species using the site. To minimise the change in visitor pressure on the Hog's Back Open Space and other sites, it is recommended that some public green space is included within the development design.

5.2 Habitats

The habitats on sites were locally common, and as such were of negligible value other than to the species they support. No further habitat or floral surveys are necessary.

5.3 Protected & Notable Species

Only species which could be found within the site are detailed in this section. For justification of this see Section 4.3.

5.3.1 Reptiles

Mitigation

The development of the site will result in the loss of all the habitats which are suitable for reptiles. It is feasible that they use the site, therefore vegetation clearance could kill or injure reptiles. This would contravene the *Wildlife and Countryside Act 1981* (as amended). To avoid this we recommend that when vegetation is removed it is done in a way that is sensitive to reptiles.

Sensitive vegetation clearance should follow this method:

- Prior to site clearance, maintain grass at a low level (~150 mm) to avoid this becoming reptile-suitable habitat;

Under supervision of a suitably qualified ecologist:

- During vegetation clearance cut all vegetation (including shrubs) to approximately 150 mm during warm (10°C +) and dry weather.
- The vegetation should be left alone for one day - one week to allow reptiles to leave of their own accord;
- Log piles and other debris should be dismantled by hand;
- The vegetation should be re-cut, to ground level-50 mm; and
- After one day - one week the top layer of earth should be removed.

During site clearance and demolition, rubble piles and other debris should be taken off site, or compacted to avoid reptiles using these as refugia.

Enhancement

Development of the site offers opportunity to improve the local area for reptiles. We recommend that the landscaping is designed with biodiversity, including reptiles, in mind. This will include growing medium-height herbaceous plants alongside areas of shorter vegetation to provide foraging and basking opportunities respectively. Where possible this vegetation should be along or joined to the boundary of the site so that reptiles have a green connection to land off-site. If there is sufficient land available, reptile refugia could be created from rubble, wood or other debris, which is covered with soil.

5.3.2 Bats

The old hospital buildings provided opportunities for bats to roost. As these buildings will be demolished to clear the site for development, if bats are roosting the works would contravene the *Wildlife and Countryside Act 1981* (as amended) and the *Conservation of Habitats and Species Regulations 2010* (as amended). To determine if the buildings are being used by bats to roost, and to design mitigation to avoid an offence occurring, further emergence and return surveys, as well as an internal assessment of the buildings where possible, are recommended.

An emergence and return survey and internal assessment should be carried out following the guidance set out in the BCT guidelines (Hundt, 2012). For the site (Main Building and North Annex only) the following survey effort is recommended:

- One dusk emergence followed by a dawn return visit the next morning; and

- One dusk emergence visit.

These surveys were carried out in September 2015 (see WYG, 2015).

5.3.3 Nesting birds

Mitigation

Where it is necessary to demolish buildings or fell trees there is a risk that birds' nests may be destroyed and/or their young killed. This would contravene the *Wildlife and Countryside Act 1981* (as amended). To help avoid this we recommend that any such works are carried out outside the bird nesting season (which runs March-September, inclusive). If this period cannot be avoided a check for nesting birds should be carried out. If active nests are found a buffer should be set up around these, within which no work can take place, until the young have fledged. The size of the buffer will vary dependent on the level of disturbance but as a minimum it should be 5m.

Enhancement

Construction of new buildings allows for the inclusion of new and replacement nesting opportunities. In line with local and national planning policy (e.g. Hillingdon Local Plan Policy EM7), we recommend that bird nest boxes are installed on or in the new buildings, and/or on retained trees. These should includ boxes which target London BAP species, or national Priority Species e.g. house sparrow, starling or song thrush.

5.4 Invasive species

Two invasive species were found on the site. One was wall cotoneaster which is listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended). It is illegal to allow this plant to spread in the wild. The second is butterfly bush, which has no legal restrictions covering it, but is listed by the London Invasive Species Initiative (LISI).

To avoid spreading these species it is recommended that where they are to be removed, that they should be sprayed to kill them beforehand. If this is not possible, all the plant material should be chipped after removal.

6.0 Conclusions

Further survey works should be carried out for bats (undertaken in September 2015); and a check of buildings and trees to be demolished or felled, for nesting birds. This will inform appropriate mitigation as detailed in Section 5. The surveys, checks and mitigation will be designed to allow the works to proceed in line with UK and EU wildlife legislation.

Within the site design, there should be some green space allowed for recreation. This will reduce the level of visitor pressure on the local designated sites.

Where invasive plant species are removed, they should be treated first to kill the plant and avoid its spread. If not possible the whole plant should be dug up and chipped.

Following local and national planning policy, enhancements for biodiversity can be included in the form of habitat creation for reptiles and bird boxes.

7.0 References

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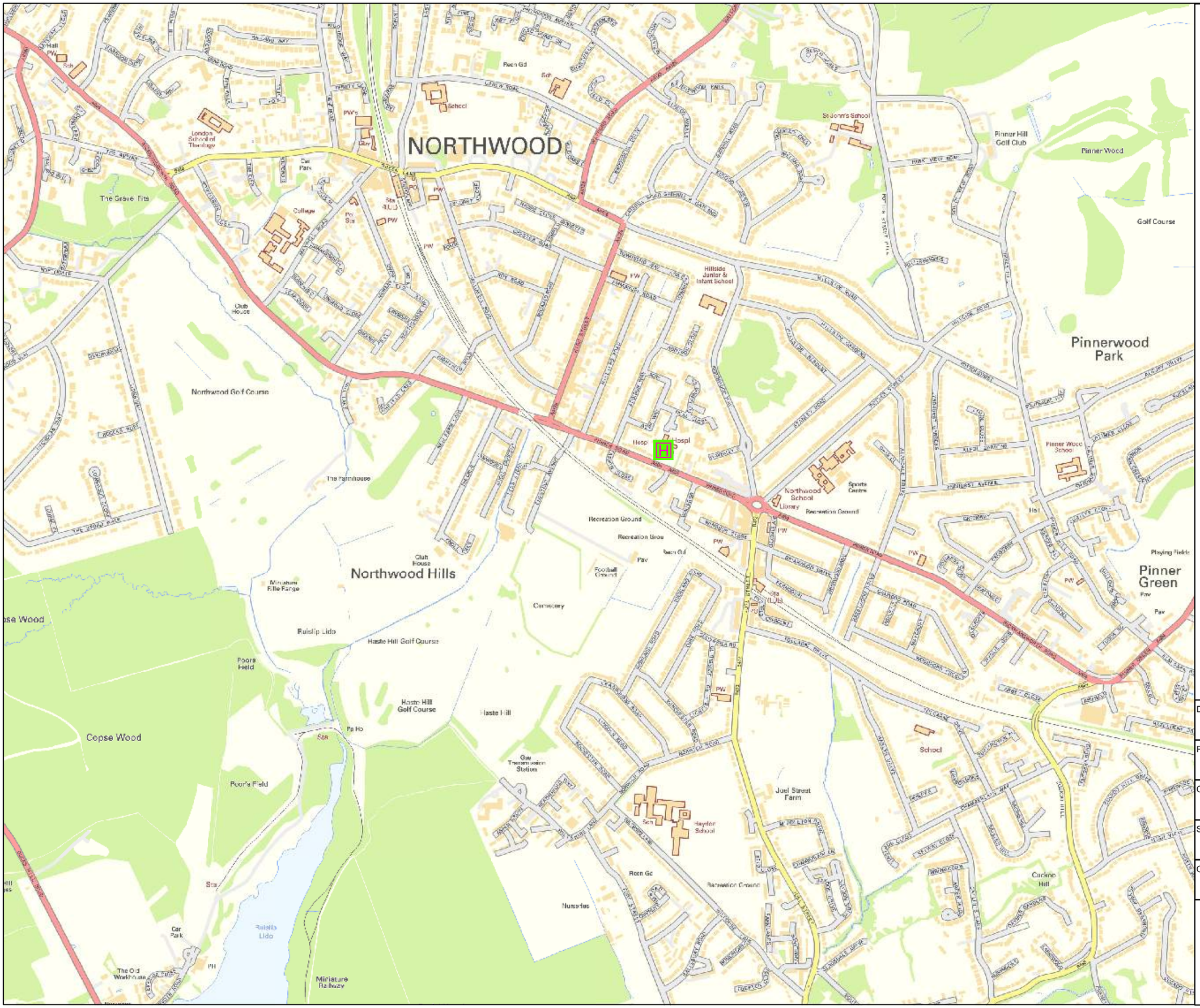
- RSPB 2009 Birds of Conservation Concern
- WYG (2015). *Bat Emergence and Return Surveys and Internal Building Assessment*

FIGURES

Figure 1 – Site Location Plan

Figure 2 – Phase 1 Habitat Plan



N

Legend

Northwood and Pinner Hospital

0 125 250 500 m

Drawing title:
Site Location

Project:
A094148 Northwood and Pinner Hospital

Client:
NHS Property Services

Scale (A3):	Created by:	Reviewed by:	Verified by:
1:10,000	TJB 27/11/15	- - - --/--/--	- - - --/--/--

Office:	Drawing number:	Revision:
4594	Figure 1	Rev.01

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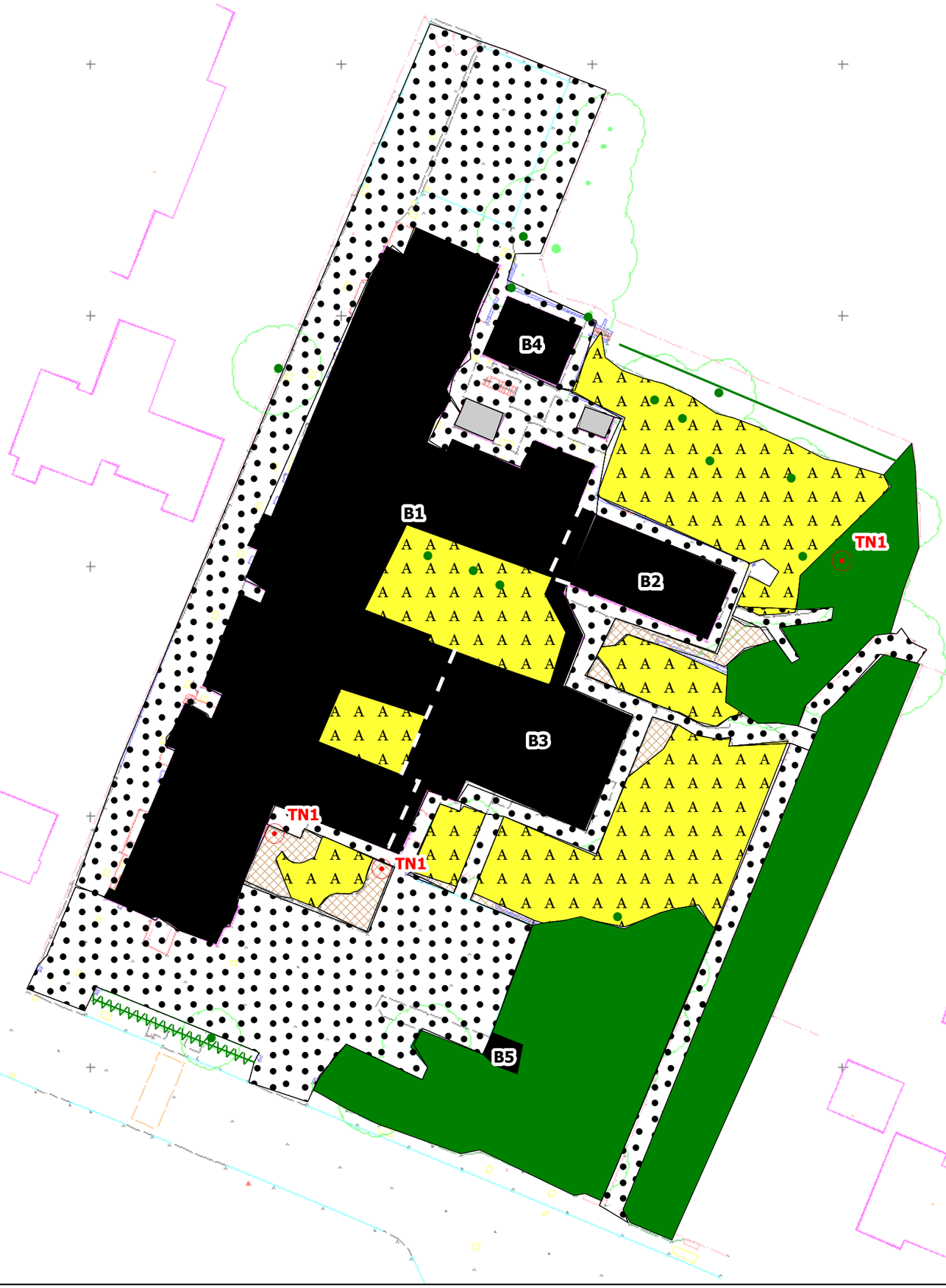

N

Legend

- Broadleaved woodland
- Amenity grassland
- Introduced shrub
- Building
- Hard standing
- Damaged shed (no bat roost potential)
- Species-rich hedgerow
- Species-poor hedgerow
- Scattered tree
- Target note
  TN1: Invasive Species: Wall cotoneaster/ butterfly bush

0 2.5 5 10 15 20 m

Drawing title:
Phase 1 Habitats Map

Project:
A094148 Northwood and Pinner Hospital

Client:
NHS Property Services

Scale (A3):	Created by:	Reviewed by:	Verified by:
1:450	TJB 27/11/15	- - - --/--/--	- - - --/--/--

Office:	Drawing number:	Revision:
4594	Figure 2	Rev.01

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APPENDIX A - Legislation

Introduction

The UK has ratified a number of Conventions and implemented legislation pertaining to the protection of biodiversity and habtiats, either independently or as member state of the European Union. These are defined and summarised below.

Lists of theatened, endagered and extinct species are also provided, together with a summary explanation of each.

Bern Convention (1982)

The *Convention on the Conservation of European Wildlife and Natural Habitats* (the *Bern Convention*) was adopted in Bern, Switzerland in 1979, and was ratified in 1982. Its aims are to protect wild plants and animals and their habitats listed in Appendices 1 and 2 of the of the Convention, and regulate the exploitation of speices listed in Appendix 3. The regulation imposes legal obligations on participating countires to protect over 500 plant species and more than 1000 animals.

To meet its obligations imposed by the Convention, the European Community adopted the *EC Birds Directiv*e (1979) and the *EC Habitats Directive* (1992 – see below). Since the Lisbon Treaty, in force since 1st December 2009, European legislation has been adopted by the European Union.

Birds Directive (BD)

The *EC Directive on the Conservation of Wild Birds* (791409/EEC) or '*Birds Directive*' was introduced to achieve favourable conservation status of all wild bird species across their distribution range. In this context, the most important provision is the identification and classification of Special Protection Areas (SPAs) for rare or vulnerable species listed in Annex 1 of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance.

Birds of Conservation Concern (BoCC)

This is a review of the status of all birds occuring regularly in the United Kingdom. It is regularly updated and is prepared by leading bird conservation organisations, including the British Trust for Ornithology (BTO), Joint Nature Conservation Committee (JNCC) and The Royal Society for the Protection of Birds (RSPB).

The latest report was produced in 2009 (Eaton *et al,* 2009) and identified 52 red list species, 126 amber species, and 68 green species. The criteria are complex, but generally:

- Red list species are those that have shown a decline of the breeding population, non-breeding population or breeding range of more than 50% in the last 25 years.

- Amber list species are those that have shown a decline of the breeding population, non-breeding population or breeding range of between 25% and 50% in the last 25 years. Species that have a UK breeding population of less than 300 or a non-breeding population of less than 900 individuals are also included, together with those whose 50% of the population

is localasied in 10 sites or fewer and those whose 20% of the European population is found in the UK.

- Green list species are all regularly occurring species that do not qualify under any of the red or amber criteria are green listed

Bonn Convention

The Convention on the Conservation of Migratory Species of Wild Animals or '*Bonn Convention*' was adopted in Bonn, Germany in 1979 and came into force in 1985. Participating states agree to work together to preserve migratory species and their habitats by providing strict protection to species listed in Appendix I of the Convention. It also establishes agreements for the conservation and management of migratory species listed in Appendix II.

In the UK, the requirements of the convention are implemented via the *Wildlfie & Countryside Act 1981* (as amended), *Widlife (Northern Ireland) Order 1985*, *Nature Conservation and Amenity Lands (Northern Ireland) Order 1985* and the *Countryside and Rights of Way Act 2000* (CRoW).

Global IUCN Red List

The International Union for Conservation of Nature (IUCN) Threatended Species was devised to provide a list of those species that are most at risk of becoming extinct globally. It provides taxonomic, conservation status and distribution information about threatened taxa around the globe.

The system catalogues threatened species into groups of varying levels of threat, which are: Extinct (EX), Extinct in the Wild (EW), Critically Endangered (CE), Endangered (EN), Vulnerable (VU), Near Threatened (NT), Least Conern (LC), Data Deficient (DD), Not Evaluated (NE). Criteria for designation into each of the catgories is complex, and consider several principles.

Habitats Directive

The *Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Fora*, or the '*Habitats Directive*', is a European Union directive adopted in 1992 in response to the Bern Convention. Its aims are to protect approximately 220 habitats and 1,000 species listed in its several Annexes.

In the UK, the *Habitats Directive* is transposed into national law via the *Conservation of Habitats and Species (Amendment) Regulations 2012* in England, Scotland and Wales, and via the *Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended)* in Northern Ireland.

Protection of Badgers Act 1992 (PBA 1992)

The main legislation protecting badgers in England and Wales is the *Protection of Badgers Act 1992* (the 1992 Act). Under the 1992 Act it is an offence to: wilfully kill, injure, take or attempt to kill, injure or take a badger; dig for a badger; interfere with a badger sett by, damaging a sett or any part thereof, destroying a sett, obstructing access to a sett, causing a dog to enter a sett or disturbing a badger while occupying a sett.
The 1992 Act defines a badger sett as: "any structure or place which displays signs indicating current use by a badger"

National Planning Policy Framework (2012)

Following the publication of the National Planning Policy Framework (NPPF) in March 2012, *Planning Policy Statement 9* (PPS9)*: Biodiversity and Geological Conservation (*2005) has been withdrawn. However, *ODPM 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their impact within the Planning System* (the guidance document that accompanied PPS9) has not been withdrawn and, where more detailed guidance is required than is given within the NPPF, local planning authorities will continue to rely on ODPM 06/2005.

This guidance requires local planning authorities to take account of the conservation of protected species when determining planning applications and makes the presence of a protected species a material consideration when assessing a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.

In the case of European Protected Species such as bats, planning policy emphasises that strict statutory provisions apply (including the *Conservation of Habitats and Species (Amendment) Regulations 2012*), to which a planning authority must have due regard.

Where developments requiring planning permission are likely to impact upon protected species it is necessary that protected species surveys are undertaken and submitted to meet the requirements of paragraph 98 of ODPM Circular 06/2005 which states that:

'*The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.*'

General guidance within the body of the NPPF which are also potentially relevant to the possible presence of bats at the Site includes the following statements:

"The planning system should contribute to and enhance the natural and local environment by:

- *protecting and enhancing valued landscapes, geological conservation interests and soils;*
- *recognising the wider benefits of ecosystem services;*
- *minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"*

"Local planning authorities should set criteria based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged."

"When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- *if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;"*

Habitats and Species of Principal Importance in England

Section 41 (S41) of the *Natural Environment and rural Communities (NERC) Act 2006* requires the Secretary of State to publish a list (in consultation with Natural England) of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of this Act, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 habitats of principal importance and 1,150 species of principal importance.

The Conservation of Habitats and Species Regulations 2010 (as amended)

The *Conservation of Habitats and Species Regulations 2010* (as amended) transpose the various provisions of Directive 92/43/EC ('the Habitats Directive') into UK law.

Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I or II of the Habitats Directive respectively) to the European Commission. These sites, if ratified by the European Commission, are then designated as Special Protection Areas (SPAs) within six years. The 2012 amendments include that public bodies help preserve, maintain and re-establish habitats for wild birds.

The Regulations also make it an offence to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2, or pick, uproot, destroy, or trade in the plants listed in Schedule 5 (see Table B1).

APPENDIX B – Data Search

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

eCountability

An Ecological Data Search for Northwood and Pinner Hospital

On behalf of
WYG

Report reference 265

Prepared on 10 Sep 2015
by Alec Walker, eCountability Ltd.
enquiries@eCountability.co.uk

Prepared by eCountability Ltd (enquiries@ecountability.co.uk) on behalf of:
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community interest company limited by guarantee registered in England and Wales number 8345552
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Contents

1.0 Introduction

An ecological data search for Northwood and Pinner Hospital and surrounding land to a 2000m radius on behalf of WYG.

The following report was compiled by eCountability Ltd on behalf of WYG, 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.

*** Please note the search area falls partly outside of the GiGL data area. This report only covers the data available from the GiGL data holdings. Please see the GiGL Data Holdings Check Map in Annex A for the location of available data included in this report ***

Important information about this report

The data provided within this report is for the **internal** use of WYG (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 2 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.

Ruislip Woods NNR

Access:	Open
County:	Greater London
Local Team:	Essex, Hertfordshire & London Team
Main Habitats:	Woodland, Open Water, Lowland Grassland
Natural Area:	London Basin
Area (Ha):	296
Number of visitors (annually):	175,000

Introduction

Ruislip Woods National Nature Reserve (NNR) consists of five principal areas - Poor's Field, Mad Bess, Bayhurst, Park Wood and Copse Wood - making a total of 295.7 ha. As a unit it represents 10% of London's Semi-Natural Ancient Woodland (SNAW). Park Wood, at 100.2 ha, is the largest unbroken wood in London.

Ruislip Woods were declared as an SSSI in 1950 and became London's first NNR in May 1997.

Significant habitats and species

The majority of the site is wooded, with extensive areas of hornbeam coppice overstood with either common or sessile oak. The remaining woods are secondary, consisting of oak/birch, birch/aspen, beech and sweet chestnut.

Most of the woodlands contain historical earthbanks, some with layed or stubbed trees indicating external boundaries, former divisions within the wood and cover for game shooting.

Situated between Park Wood and Copse Wood is Poor's Field, an area of 16.2 ha, which is a Registered Common. Sub-soil ranging from Reading Beds to Reading Sand, combined with a long history of grazing, has given rise to a wide range of flowering plants.

There are numerous header streams, mostly running in their original meanders, and areas of wetland surrounding small bodies of water amounting to approximately 6 ha.

Management

Following the collapse of the coppice industry in the 1930s, little management work was undertaken until the early 1980s. Following the adoption of the Ruislip Woods Long-Term Management Plan, the London Borough of Hillingdon commenced works in 1982 with particular emphasis on restoring the coppice. Many areas have now been cut, and the transformation from areas of dark, out-of-cycle coppice to a mosaic of regenerated woodland is now well under way.

Grazing on Poor's Field ceased in 1956 and during the next 25 years tree and shrub encroachment was widespread. Between 1982 and 1997 tree felling and mechanical vegetation control achieved reasonable success in restoring some of the grasslands and a more open aspect.

In May 1997, with the assistance of grant aid from English Nature, Poor's Field was fenced and gated,. Through a local farmer cattle grazing has been reinstated during the summer months.

Location and access

The woods are situated in Ruislip. There are a number of roads which pass nearby, including Ducks Hill

road, and Breakspear road North. There are three carparks available at, Mad Besswood, Bayhurst Wood, and next to Poors Field. Various bus routes pass nearby and through the reserve. There is limited disabled access at certain points throughout the woodland complex.

Facilities
There are no toilet or refreshment facilities at the site, with the nearest available located at Ruislip Lido. There are some interpretation leaflets available at the reserve. The site can be visited at any time of the year.

Site Name: **Ruislip Woods**

District: Hillingdon

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended

Local Planning Authority: London Borough of Hillingdon

National Grid Reference: TQ081892 **Area:** 305.4 hectares

Description and Reasons for Notification:
The Ruislip Woods form an extensive example of ancient semi-natural woodland, including some of the largest unbroken blocks that remain in Greater London. A diverse range of oak and hornbeam woodland types occur, with large areas managed on a traditional coppice-with-standards system. The site is also unusual in Greater London for the juxtaposition of extensive woodland with other semi-natural habitats, mostly notably acidic grass-heath mosaic and areas of wetland. These habitats and especially the woodland contain a number of plant and insect species that are rare* or scarce* in a national or local context.

The woodland lies in four major blocks, known as Bayhurst, Mad Bess, Copse and Park Woods, situated across the upper slopes and valleys at the head of several stream systems. Park Wood is the only unbroken area of ancient semi-natural woodland larger than 100 hectares in Greater London. Nearly all the woodland is on London Clay or clays of the Reading Beds. This has given rise to soils which are acidic and frequently poorly drained, especially in some of the valleys and on the more gently sloping ground. Characteristically of such soils in south-east Britain, the woodland is mostly dominated by pedunculate oak *Quercus robur*, sessile oak *Q. petraea*, hornbeam *Carpinus betulus* and birch *Betula* species. These occur in a number of distinctly recognisable stand-types such as lowland birch/sessile oak woodland, a variant of pedunculate oak-hornbeam woodland and acidic sessile oak-hornbeam woodland. Most of the stand types are uncommon or localised in Great Britain, and these include the oak and hornbeam types which cover large areas in each of the woods.

The woodland varies widely in structure, with parts supporting mature high forest and more extensive areas supporting hornbeam coppice with oak standards. There are also areas of recent secondary woodland at various stages of development toward high forest. In recent years management of the old coppice has been reinstated on a large scale adding further variety to the woodland features.
The distribution of the different stand types partly reflects the soils and former management. The pedunculate oak-hornbeam woods occur predominantly in Mad Bess Wood, Copse Wood and the southern part of Park Wood. These are replaced by sessile oak-hornbeam wood in the north of Park Wood and Bayhurst Wood. Also in Bayhurst Wood the occurrence of beech *Fagus sylvatica* provides a transition to acidic sessile oak-beech woodland. Examples of birch-oak woodland tend to occur on more freely draining soils, particularly in Copse and Park Woods. Many of the tree and shrub species that are associated with ancient woodland occur within these woods. These include field maple *Acer campestre*, midland hawthorn *Crataegus laevigata*, aspen *Populus tremula*, wild cherry *Prunus avium*, wild service tree *Sorbus torminalis* and guelder-rose *Viburnum opulus*. Where the drainage is impeded the range of species also includes alder *Alnus glutinosa*, willow *Salix* species and the less common alder buckthorn *Frangula alnus*.

The acidic soils give rise to a characteristically limited ground flora which is often sparse or absent under the dense shade of old hornbeam coppice. The dominant species include bramble *Rubus fruticosus*, bracken *Pteridium aquilinum*, honeysuckle *Lonicera periclymenum*, creeping softgrass *Holcus mollis* and, in places, bluebell *Hyacinthoides non-scripta*.

Along rides, in areas of recently-cut coppice and on damper ground in the stream valleys, the ground flora tends to be more diverse. Many of the species are strongly associated with ancient woodland such as wood anemone *Anemone nemorosa*, yellow archangel *Lamiastrum galeobdolon*, yellow pimpernel *Lysimachia nemorum* and betony *Stachys officinalis*. Several others are scarce in Greater London, including broad-leaved helleborine *Epipactis helleborine*, violet helleborine *E. purpurata* and common cow-wheat *Melampyrum pratense*.

Areas of wetland vegetation occur in some of the main valleys, such as at Ruislip Local Nature Reserve which supports a species-rich association of willow carr, tall fen and swamp communities. Additional

diversity is provided by the juxtaposition of the woodland with areas of acidic grassland, neutral grassland and open heath. Poor's Field, situated adjacent to Copse Wood on the sand and clays of he lower Reading Beds, supports a complex mosaic of these habitats. Characteristic species of the more acidic parts include heather *Calluna vulgaris*, tormentil *Potentilla erecta* and mat-grass *Nardus stricta*. Species which are rare or scarce in Greater London such as heath spotted orchid *Dactylorhiza maculata*, petty whin *Genista anglica*, lousewort *Pedicularis sylvatica* and dwarf gorse *Ulex minor* also occur.

The woodlands and adjacent open habitats support an insect fauna which includes nationally rare* and nationally scarce* species of moths *(Lepidoptera*), beetle *(Coleoptera*) and two winged flies *(Diptera*). Among the rarer species are two moths, the light orange underwing *Archiearis notha* and the lead-coloured drab *Orthosia populeti* associated with aspen, and the great oak beauty *Boarmia roboraria*, a moth whose larvae feed on oak. The Diptera include a nationally rare soldier fly *Xylomyia maculata* (vulnerable**) which is confined to a few ancient woodlands containing overmature trees with rot holes.

The Ruislip Woods also support a diverse range of breeding birds characteristic of woodland habitat. These include tawny oak *Strix aluco*, all three British species of woodpecker: green *Picus viridus*, greater spotted *Dendrocopos major* and lesser spotted *D. minor*, willow tit *Parus montanus*, nuthatch *Sitta europaea* and the less common woodcock *Scolopax rusticola* and hawfinch *Coccothraustes coccothraustes*. The large extent of the woods and the presence of adjoining open habitats provide particularly suitable conditions for several of the less common breeding species.

* Nationally rare: recorded from 15 or less 10 km squares in Britain; nationally scarce: 15-100 km squares.

** The term 'vulnerable' refers to status category 2 in Shirt, D B, (ed) 1987, **British Red Data Books 2**, Insects. The status of individual species is subject to periodic review.

Other Information:
Ruislip LNR was declared in 1959 and is managed jointly by the Ruislip and District Natural History Society and the Hertfordshire and Middlesex Wildlife Trust. Tarleton's Lake is managed as a nature reserve by the Hertfordshire and Middlesex Wildlife Trust. Bayhurst Wood is a Countryside Park. There are several boundary amendments from the former SSSI, including extensions.

3.0 Non-Statutory Sites

A desk-based search shows that there are 17 SINCs and 2 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: M009

Site Name: Ruislip Woods and Poor's Field

Summary: One of London's two National Nature Reserves, this site includes a large area of ancient woodlands, as well as heathland and grassland.

Grid ref: TQ 085 895

Area (ha): 344.42

Borough(s): Hillingdon

Habitat(s): Acid grassland, Ancient woodland, Heathland, Pond/lake, Reed bed

Access: Free public access (all/most of site)

Ownership: London Borough of Hillingdon

Site Description:

The largest block of ancient woodland in London, with adjacent areas of acid grassland, heathland and wetlands. The woodland, which is divided into Park Wood, Copse Wood, Mad Bess Wood and Bayhurst Wood, is varied but predominantly consists of old coppice-with-standards, and is particularly interesting for the occurrence of both pedunculate and sessile oaks (Quercus robur, Q. petraea). The mixture of hornbeam (Carpinus betulus) and beech (Fagus sylvatica) in places is also unusual. Locally uncommon plant species include wild service-tree (Sorbus torminalis), common cow-wheat (Melampyrum pratense), southern woodrush (Luzula forsteri) and moschatel (Adoxa moschatellina). The heathland at Poor's Field consists of fescues (Festuca spp.) and tufted hair-grass (Deschampsia cespitosa), with heather (Calluna vulgaris), dwarf gorse (Ulex minor), the rare petty whin (Genista anglica), heath-grass (Danthonia decumbens) and heath speedwell (Veronica officinalis). Ruislip Lido is a substantial body of open water, with a reed bed at the northern end and fairly diverse marginal vegetation.

The avifauna of the site is diverse, with breeding sparrowhawk, tawny owl and occasionally woodcock and wood warbler. There is also an important invertebrate fauna including several nationally rare and scarce species. One of London's most important sites for specially-protected bats (with at least nine species recorded) and reptiles. Most of the site is a National Nature Reserve. Free public access. Ruislip Woods won a Green Flag Award for 2006/7.

Site first notified:	01/04/1986	**Boundary last changed:**	30/11/2005
Citation last edited:	14/08/2006	**Mayor Agreed:**	25/11/2002
Defunct:	N		
Last Updated:	05/04/2007		

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: HiBI02

Site Name: Haydon Hall Meadows

Summary: A series of lightly cattle-grazed meadows, an orchard and river corridor in the grounds of Haydon Hall.

Grid ref: TQ 107 893

Area (ha): 9.55

Borough(s): Hillingdon

Habitat(s): Amenity grassland, Bare ground, Hedge, Orchard, Running water, Scattered trees, Scrub, Secondary woodland, Semi-improved neutral grassland, Unimproved neutral grassland

Access: Access on public footpaths only

Ownership: London Borough of Hillingdon and Private

Site Description:

A series of lightly cattle-grazed meadows in the south of the site display an excellent meadow flora including plentiful sneezewort (Achillea ptarmica) and common knapweed (Centaurea nigra), devil's-bit scabious (Succisa pratensis), agrimony (Agrimonia eupatoria), red bartsia (Odontites vernus) and meadowsweet (Filipendula ulmaria). Trees and outgrown hedges include pedunculate oak (Quercus robur), field maple (Acer campestre), blackthorn (Prunus spinosa), common hawthorn (Crataegus monogyna), hybrid hawthorn (C. x macrocarpa), field rose (Rosa arvensis) and hornbeam (Carpinus betulus). A wide variety of insects use these good quality grasslands including diverse solitary bees, hoverflies and dung-beetles and butterflies such as common blue and meadow brown. The birdlife includes goldfinch and chiffchaff.

To the south-west, a densely overgrown orchard appears to have remained unmanaged for some years.

The river corridor to the north and west contains a variety of habitats, including riparian scrub and trees, a copse and rough grassland. A broad tree and scrub-lined permissive footpath may be a remnant of an ancient trackway.

Site first notified: 01/01/1988 **Boundary last changed:** 08/09/2005

Citation last edited: 29/12/2005 **Mayor Agreed:**

Defunct: N

Last Updated: 06/01/2006

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 (Koelreuteria 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: HiBII15

Site Name: Old Pumping Station Field

Summary: A large area of rich grassland with good native hedgerow boundaries.

Grid ref: TQ 085 892

Area (ha): 8.1

Borough(s): Hillingdon

Habitat(s): Hedge, Scattered trees, Scrub, Semi-improved neutral grassland, Unimproved neutral grassland

Access: Free public access (part of site)

Ownership: Private

Site Description:

The Old Pumping Station field is a large area of rich grassland, bounded by good native hedgerows, immediately adjacent to Ruislip Woods National Nature Reserve. Yellow rattle (Rhinanthus minor) grows in sporadic clumps amongst a sward dominated by false oat-grass (Arrhenatherum elatius) and red fescue (Festuca rubra), along with soft brome (Bromus hordaceus), meadow barley (Hordeum secalinum) and tufted hair-grass (Deschampsia cespitosa). Leguminous plants such as red clover (Trifolium pratense), common vetch (Vicia sativa), tufted vetch, (Vicia cracca), hairy tare (Vicia hirsuta) and meadow vetchling (Lathyrus pratensis) are abundant, and other wild flowers include long-stalked cranesbill (Geranium columbinum), greater stitchwort (Stellaria holostea) and common knapweed (Centaurea nigra). Pedunculate oak (Quercus robur) grows in the hedges along with grey willow (Salix cinerea), bramble (Rubus fruticosus), field rose (Rosa arvensis) and dog rose (R. canina).

The site of the old storage tank is a scrubbed-over pit with marshy mud and standing water, but with no apparent wetland vegetation. The scrub is mainly grey willow (Salix cinerea), with pedunculate oak, elder (Sambucus nigra) and silver birch (Betula pendula). Although botanically poor, this area provides a number of potentially high-value invertebrate habitats, including semi-submerged large-section timber, permanent mud in deep shade and still, humid air.

The field to the north-east has abundant red fescue and crested dog's-tail (Cynosurus cristatus), along with greater bird's-foot-trefoil (Lotus pedunculatus) and, in a seasonally damp area, lesser spearwort (Ranunculus flammula). Hedgerow remnants include hybrid hawthorn (Crataegus x macrocarpa). The meadow to the west has a hedge of firethorn (Pyracantha sp.) on its eastern boundary, and is mainly dominated by tufted hair-grass. There are a number of elderly oaks with standing decaying timber, and a clump of grey willows is thought to conceal a wet area on its west margin.

The entire site is particularly insect rich, and notable for the presence of the ringlet butterfly. Common blue, large skipper and meadow brown fly here along with the day-flying narrow-bordered five-spot burnet moth (Zygaena lonicerae). There are numerous robber-flies (Asilidae) flying in this grassland, and this is taken as an indicator of the richness and stability of the invertebrate fauna on which these large predators depend. The site is valuable for reptiles.

The site is accessible to the public apart from the small field on the west margin.

Site first notified: 01/01/1988 **Boundary last changed:** 08/09/2005

Citation last edited: 27/03/2006 **Mayor Agreed:**

Defunct: N

Last Updated: 27/03/2006

Borough Grade II

Site Reference: HiBII20

Site Name: Gravel Pit, Northwood

Summary: Heavily wooded gravel diggings, excellent for quiet walks.

Grid ref: TQ 084 913

Area (ha): 5.9

Borough(s): Hillingdon

Habitat(s): Amenity grassland, Ruderal, Scrub, Secondary woodland, Semi-improved neutral grassland

Access: Free public access (all/most of site)

Ownership: London Borough of Hillingdon

Site Description:

These heavily wooded gravel diggings lie on the junction of two main roads, and the pathways through the woods are heavily used by the public.

The woods are dominated by sycamore (Acer pseudoplatanus) and common hawthorn (Crataegus monogyna), interspersed with beech (Fagus sylvatica), aspen (Populus tremula) and pedunculate oak (Quercus robur), some of which clearly pre-date the other trees. The densely scrubbed woodland floor is criss-crossed with paths, and the woodland edges have a relatively rich flora. Species occurring commonly here include ground elder (Aegopodium podagraria), black horehound (Ballota nigra), bracken (Pteridium aquilinum), clustered dock (Rumex conglomeratus) and violets (Viola sp.). The shadier areas are home to lords-and-ladies (Arum maculatum), enchanter's nightshade (Circaea lutetiana), and broad buckler-fern (Dryopteris dilatata). Cherry laurel (Prunus laurocerasus) is becoming invasive at the site.

Damper areas resulting from old gravel workings provide potential habitats for a wide range of invertebrates, and there is good quality decaying timber in some of the standing pedunculate oaks.

The narrow extensions to the site bordering Copse Wood Way to the west are dominated by even-aged hornbeams (Carpinus betulus), with pedunculate oaks and false acacia (Robinia pseudoacacia). There is a dense shrub layer including holly (Ilex aquifolium), and a ground flora comprising extensive ivy (Hedera helix) and bracken, interspersed with dog rose (Rosa canina) and white-flowered cyclamen (Cyclamen hederifolia).

Site first notified: 01/01/1988 **Boundary last changed:** 08/09/2005

Citation last edited: 15/12/2005 **Mayor Agreed:**

Defunct: N

Last Updated: 20/04/2006

Borough Grade II

Site Reference: HiBII22

Site Name: St Vincent's Hospital Meadows

Summary: Two fields, one each side of St Vincent's Hospital, rich in butterflies and grasshoppers.

Grid ref: TQ 096 897

Area (ha): 2.37

Borough(s): Hillingdon

Habitat(s): Amenity grassland, Bare ground, Roughland, Ruderal, Scattered trees, Scrub, Semi-improved neutral grassland

Access: Free public access (part of site)

Ownership: Private

Site Description:

This site comprises two fields, one each side of St Vincent's Hospital. The field to the north is dominated by Yorkshire fog (Holcus lanatus) and tufted hair-grass (Deschampsia cespitosa), along with meadow foxtail (Alopecurus pratensis) common couch (Elytrigia repens) and occasional giant fescue (Festuca gigantea). Other flora includes great willowherb (Epilobium hirsutum), red clover (Trifolium pratense) and tufted vetch (Vicia cracca). Extensive bramble (Rubus fruticosus agg.) scrub is patchily dominant, and field maple (Acer campestre) occurs occasionally. The field is rich in grasshoppers, and meadow brown, gatekeeper and common blue butterflies can be found here.

The origin of the vegetated mound at the east end is unknown, but may have arisen as the result of rubble or soil dumping. Scrub, scattered trees and grassland encircle the east of the hospital buildings and border Park Wood (part of Ruislip Woods National Nature Reserve) and Haste Hill Golf Course, to the west and north respectively.

The field to the south-west of the hospital is dominated by false oat-grass (Arrhenatherum elatius) and perennial rye-grass (Lolium perenne) and has a relatively rich flora including abundant crested dog's-tail (Cynosurus cristatus), as well as pineappleweed (Matricaria discoidea), common centaury (Centaurium erythrea), red clover, smooth tare (Vicia tetrasperma) and small melilot (Melilotus indica). Its southern aspect and path-side bare soil provide nesting sites for solitary wasps and other invertebrates, while pedunculate oaks (Quercus robur), dog rose (Rosa canina) and common hawthorns (Crataegus monogyna) grow on the southern edge, probably remnants of an old hedge. The provides resources such as nectar for scarce woodland insects associated with the National Nature Reserve.

There is de facto access from Wiltshire Lane and Heatherfold Way.

Site first notified: 01/01/1988 **Boundary last changed:** 08/09/2005

Citation last edited: 27/03/2006 **Mayor Agreed:**

Defunct: N

Last Updated: 27/03/2006

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: HiBII44

Site Name: Fore Street Meadows

Summary: Two grazing fields, hedgerow and a section of public footpath situated on the east margin of Park Wood.

Grid ref: TQ 099 891

Area (ha): 2.82

Borough(s): Hillingdon

Habitat(s): Hedge, Roughland, Ruderal, Scattered trees, Semi-improved neutral grassland, Wet ditches

Access: Access on public footpaths only

Ownership: London Borough of Hillingdon

Site Description:

This site comprises two grazing fields situated on the east margin of Park Wood (part of Ruislip Woods National Nature Reserve).

The grassland is dominated by false-oat grass (Arrhenatherum elatius) with cock's-foot (Dactylis glomerata) and common couch (Elytrigia repens), with tall wild flowers including curled dock (Rumex conglomeratus), bittersweet (Solanum dulcamara), great willowherb (Epilobium hirsutum), and hogweed (Heracleum sphondylium). The hedges are dominated by common hawthorn (Crataegus monogyna) and blackthorn (Prunus spinosa), with some elder (Sambucus nigra). There are a few large pedunculate oak (Quercus robur) trees in the horse-grazed northern meadow, including large standing dead and decaying timber. The southern meadow contains scattered scrub and tall herbs. There is a recently re-laid hedge by the roadside to the south. Situated near the south end is a vegetated ditch and associated damp areas, dominated by floating sweet-grass (Glyceria fluitans), which are likely to provide habitats for a range of invertebrates. The value of these fields is augmented by their proximity to Park Wood, part of Ruislip Woods National Nature Reserve, to which they provide an important buffer zone. In addition to habitats for saproxylic and wetland invertebrates the site is likely to provide nectar sources and swarming sites for uncommon insects associated with the ancient woodland.

The site is inaccessible to the public, except for the public footpath which bisects it. This is lined with common flora such as cow parsley (Anthriscus sylvestris).

Site first notified: 08/09/2005 **Boundary last changed:** 08/09/2005

Citation last edited: 15/12/2005 **Mayor Agreed:**

Defunct: N

Last Updated: 20/04/2006

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

Borough Grade II

Site Reference: HwBII08

Site Name: Grim's Ditch and Pinner Green

Summary: Woodland associated with ancient earthworks, combining archaeological and historic interest with good wildlife habitat.

Grid ref: TQ 114 905

Area (ha): 2.77

Borough(s): Harrow

Habitat(s): Hedge, Scrub, Secondary woodland, Semi-improved neutral grassland, Veteran trees, Wet ditches

Access: Free public access (all/most of site)

Ownership: London Borough of Harrow

Site Description:

Most of Pinner Green is wooded. Although the woodlands are predominantly secondary, some large oak (Quercus robur) trees, on Grim's Dyke and elsewhere, hint at older origins. To the north, there is a dense woodland understorey, interspersed with several regularly-used paths. The ground flora includes hedge woundwort (Stachys sylvatica), wood avens (Geum urbanum), raspberry (Rubus idaeus) and honesty (Lunaria annua).

The hedgerow and ditch on the west margin arise from the historical diversion of a stream from its original course (which can still be discerned in the centre of the park). Except at the north end, the hedgerow is fenced on both sides, providing undisturbed, sheltered habitat at the streamside. Brooklime (Veronica beccabunga) grows on the streamside, and lords-and-ladies (Arum maculatum) is found in the hedgerow.

The mechanical turning of former allotments to the west of Dingles Chalkmines in 2003 has produced a diverse area of roughland. Wood speedwell (Veronica montana), scarlet pimpernel (Anagallis arvensis), tansy (Tanacetum vulgare), and feverfew (T. parthenium) grow amongst Russian comfrey (Symphytum x uplandicum), hedge woundwort and a range of other ruderal plants. Grim's Dyke is a Scheduled Ancient Monument. More recently, Dingles Chalk Mines have been identified as a Regionally Important Geological Site.

The site is freely accessible to the public.

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

Citation last edited: 02/02/2006 **Mayor Agreed:**

Defunct: N

Last Updated: 28/04/2006

Borough Grade II

Site Reference: HwBII13

Site Name: The Grail Centre

Summary: The grounds of a religious retreat with a number of wildlife-friendly features.

Grid ref: TQ 117 902

Area (ha): 3.3

Borough(s): Harrow

Habitat(s): Acid grassland, Orchard, Pond/Lake, Secondary woodland, Semi-improved neutral grassland

Access: No public access

Ownership: Archdiocese of Westminster (Roman Catholic Diocese of Westminster)

Site Description:

The site is run as a retreat, and there are a number of scattered cabins for residents around the site. The site managers have adopted a Nature Conservation Management Plan, prepared by the former London Ecology Unit.

There is a formal area in the east of the site with intermixed exotic plantings, 'wild' patches and small areas of mixed woodland including hornbeam (Carpinus betulus). Parsley-piert (Aphanes arvensis), an uncommon plant in London, is found along the paths in the more open areas. A small, recently created pond suffers from seasonal drying, but supports introduced populations of yellow iris (Iris pseudacorus) and bogbean (Menyanthes trifoliata).

In the west of the site is an area of species-rich acid grassland, as well as amenity grassland, hedgerows with trees, a small orchard and bee hives. Flowers in the acid grassland include birds-foot trefoil (Lotus corniculatus), tormentil (Potentilla erecta) and goat's-beard (Tragopogon pratensis) in a sward dominated by bents (Agrostis spp.). Bats and tawny owls have been reported from this secluded, historic site. The site is not accessible to the public.

Site first notified: 09/10/2003 **Boundary last changed:** 07/10/2004

Citation last edited: 24/03/2006 **Mayor Agreed:**

Defunct: N

Last Updated: 06/11/2006

Local

Site Reference: HiL02

Site Name: River Pinn near Eastcote

Summary: The River Pinn flows through a series of open spaces, forming a green corridor.

Grid ref: TQ 109 890

Area (ha): 11.52

Borough(s): Hillingdon

Habitat(s): Amenity grassland, Bare ground, Running water, Scattered trees, Scrub, Secondary woodland, Semi-improved neutral grassland, Tall herbs

Access: Free public access (all/most of site)

Ownership: London Borough of Hillingdon

Site Description:

The River Pinn enters Hillingdon from Cuckoo Hill Walk in West Harrow, and flows through a series of open spaces, forming a valuable green corridor. The section described here runs through Cheney Street Open Space, Long Meadow Open Space and Haydon Hall Park, and continues on the enter Kings College Playing Fields.

Cheney Street Open Space is an area of rough grassland encircled by sheltering trees and scrub, with the scrub-shaded River Pinn following the south and east margins. Meadowsweet (Filipendula ulmaria) is common in the grassland, and native bluebells (Hyacinthoides non-scripta) grow beneath the marginal treeline. Trees and shrubs include field maple (Acer campestre), hazel (Corylus avellana), hawthorn (Crataegus monogyna) and white poplar (Populus alba). Other flora includes cow parsley (Anthriscus sylvestris), dog rose (Rosa canina), hogweed (Heracleum sphondylium) and male fern (Dryopteris filix-mas). The large red damselfly (Pyrrhosoma nymphula), chiffchaff and orange tip butterfly also occur here. Long Meadow Open Space comprises a mosaic of copses, scrub, rough grass and amenity grassland. Common blue damselfly, goldcrest and chaffinch occur here and there are small fish in the river. Trees include field maple and horse-chestnut (Aesculus hippocastanum), and a good range of wild flowers includes lesser burdock (Arctium minus), goat's-rue (Galega officinalis), germander speedwell (Veronica chamaedrys) and wood speedwell (V. montana).

This site is freely accessible to the public and includes part of the 'Celandine route', a designated walking route extending to the Grand Union Canal.

Site first notified: 01/01/1988 **Boundary last changed:** 08/09/2005

Citation last edited: 16/03/2007 **Mayor Agreed:**

Defunct: N

Last Updated: 16/03/2007

Local

Site Reference: HwL01

Site Name: River Pinn at West Harrow

Summary: An attractive river corridor with a good range of wildlife habitats.

Grid ref: TQ 115 890

Area (ha): 1.17

Borough(s): Harrow

Habitat(s): Running water, Scrub, Secondary woodland, Semi-improved neutral grassland, Wet grassland

Access: Free public access (part of site)

Ownership: London Borough of Harrow

Site Description:

The western part of the site incorporates woodland, scrub and damp grassland as well as a section of the River Pinn and its riparian habitats. The river continues westwards over the borough Boundary into Hillingdon, where it is described as the River Pinn at Ruislip. There is a significant decaying timber component in the woodlands, which is likely to be important for fungi and invertebrates. Hazel (Corylus avellana), which is uncommon in Harrow, grows in the woodland amongst oak (Quercus robur), ash (Fraxinus excelsior), field maple (Acer campestre) and English elm (Ulmus procera). Ground flora includes lesser celandine (Ranunculus ficaria) and wood avens (Geum urbanum), while water figwort (Scrophularia auriculata) grows on the river bank.

The allotments are a well used site with marginal and interstitial trees, shrubs, bare earth and rough grassland providing de facto extensions to adjacent woodland and other habitats. Upstream the river runs through a small amenity grassland area planted with horse-chestnuts (Aesculus hippocastanum). Curled pondweed (Potamogeton crispus) occurs in this section of river. Harts-tongue fern (Phyllitis scolopendrium) and a range of other plants grow from the concrete revetments in the upstream inaccessible sectionl, whilst further upstream the river runs through a large roadside channel after emerging from a secluded, heavily wooded area which includes native hedgerow features and a number of large oak trees. The western is freely accessible during daylight hours. There is also public access to Cuckoo Hill Allotments from a public footpath, and to the section from Lloyd Court to Eastcote Road. The section east of Cannon Lane is inaccessible, but viewable from roadside and Grove estate. There is no access to the sections from Cranbourne Drive to Lloyd Court or Eastcote Road to Cannon Lane.

Site first notified: 01/01/1989 **Boundary last changed:** 30/06/2006

Citation last edited: 26/02/2007 **Mayor Agreed:**

Defunct: N

Last Updated: 16/03/2007

Local

Site Reference: HwL12

Site Name: Woodridings Brook

Summary: A section of brook with a shady footpath beside it.

Grid ref: TQ 120 906

Area (ha): 0.27

Borough(s): Harrow

Habitat(s): Hedge, Running water, Scattered trees, Scrub

Access: Free public access (all/most of site)

Ownership:

Site Description:

The Woodridings Brook is a tributary to the River Pinn. This section of the brook has varied habitats, including shallows and shingle banks. Adjacent habitats include a good range of trees and shrubs. Amongst native hedgerow plants such as field maple (Acer campestre), blackthorn (Prunus spinosa) and oak (Quercus robur), there are a number of alder trees (Alnus glutinosa), which are very scarce in Harrow. The site supports good populations of garden birds, and grey wagtails can sometimes be seen feeding on exposed river shingles. The damp and shady areas are likely to be important for a range of invertebrates. A shady public footpath runs along the length of the site.

Site first notified: 09/10/2003 **Boundary last changed:** 07/10/2004

Citation last edited: 04/04/2007 **Mayor Agreed:**

Defunct: N

Last Updated: 06/06/2007

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.

Proposed Regionally Important Geological / Geomorphological Site

(proposed in London Borough of Hillingdon Pre-submission Core Strategy, February 2011)

Site Reference:	GLA 29
Site Name:	The Gravel Pits, Northwood
Site Type:	Former quarry works
Summary:	Lambeth Group, Paleocene – Eocene

Grid ref:	TQ 083 913
Area (ha):	5.47
Borough(s):	London Borough of Hillingdon
Ownership:	London Borough of Hillingdon
Access:	Open access

Site Description:

An area of woodland covering old gravel pits in the Lambeth Group. The gravel from these pits was used for several hundred years for road mending in the area. The gravel was described as 'worked out' in 1898 and the area was saved as a public amenity in commemoration of Queen Victoria's diamond jubilee the previous year. The site is very overgrown with very few exposures in the hillocks within the site, largely caused by excavation by animals and/or humans.

Stratigraphy and Rock Types:

Time Unit: Paleocene	Rock Unit: Lambeth Group
Rock Type: Sand and gravel	Details: Glauconitic sands overlain by grey clays and sands with Brackish fauna and interleaved red and variegated clays and sands

Geodiversity Topic:	Lithostratigraphy; sedimentology; economic geology
Geodiversity Value:	Well used local site with information

Date of Last Survey: 14/9/2010

Proposed Regionally Important Geological / Geomorphological Site

(proposed in London Borough of Harrow Core Strategy pre-submission version, April 2011)

Site Reference:	GLA 36
Site Name:	Pinner Chalk Mines
Site Type:	Former mine workings
Summary:	Chalk Group/Upnor Formation, Upper Cretaceous/Paleocene
Grid ref:	TQ 11538 90483
Area (ha):	3.44
Borough(s):	London Borough of Harrow
Ownership:	London Borough of Harrow
Access:	By request to Council Licensee (ken.kirkman@btinternet.com, or via Harrow & Hillingdon Geological Society)

Site Description:

Pinner Chalk Mines extend over a large area, with mixed extraction methods recorded from the 14th century. Access is not currently possible. When accessible, it is one of the few locations still existing in London where the Chalk can be examined without being masked by vegetation. It is also important for the extremely rare in situ Hertfordshire Pudding Stone that can be seen in the shaft to the mine and in small roof falls. Its presence allowed the quarry men to utilise the Chalk almost to the top as it provided a hard ceiling. Much of the ground above the mine is not built over. Details of the mine can be found on www.pinnerchalkmine.info and there is a booklet on the geology written by Raymond Gallois, available from the Harrow & Hillingdon Geological Society. It is featured in GA Guide 68.

Stratigraphy and Rock Types:

Time Unit: Upper Cretaceous/Paleocene	Rock Unit: Chalk Group/Upnor & Reading Formations (Lambeth Group)
Rock Type: Chalk with flints/puddingstone	Details: Seaford Chalk, Hertfordshire Puddingstone

Geodiversity Topic: Sedimentology; paleontology; lithostratigraphy

Geodiversity Value: Rare regional example of ‘deep’ chalk mining with well documented history and wide educational value. It is important scientifically for its exceedingly rare in situ exposure of Hertfordshire Pudding Stone.

Date of Last Survey: 24/11/2008

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 m^2 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											
Bufo bufo	Common Toad	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	2	1	P	739	N	2001-2002	1761	SW	11/06/2004
Rana temporaria	Common Frog	Local Spp of Cons Conc	15		1	539	N	2006	1281	N	22/03/2011- 23/03/2011
Triturus cristatus	Great Crested Newt	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 2np Hab&Spp Dir Anx 4 NERC Act Section 41 BAP Priority National W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London Local Spp of Cons Conc	2		1	1408	N	22/03/2011- 23/03/2011	1408	N	22/03/2011- 23/03/2011
Reptiles											
Anguis fragilis	Slow-worm	NERC Act Section 41 BAP Priority National W&CA Sch5 Sec 9.1k/i BAP Priority London Local Spp of Cons Conc	6		1	515	SW	19/10/2004	1760	SW	03/05/2010
Natrix natrix	Grass Snake	NERC Act Section 41 BAP Priority National W&CA Sch5 Sec 9.1k/i BAP Priority London Local Spp of Cons Conc	12		20	515	SW	19/10/2004	1760	SW	03/05/2010
Zootoca vivipara	Common Lizard	NERC Act Section 41 BAP Priority National W&CA Sch5 Sec 9.1k/i BAP Priority London Local Spp of Cons Conc	7		2	1760	SW	20/07/2009	1760	SW	03/05/2010

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
Birds											
Acanthis cabaret	Lesser Redpoll	NERC Act Section 41 BAP Priority National Bird-Red	2		10	1356	SW	29/10/1983	1356	SW	29/10/1983
Acanthis flammea	Common (Mealy) Redpoll	BAP Priority London Local Spp of Cons Conc	5		7	1923	SW	25/09/2005	1923	SW	12/11/2005
Alcedo atthis	Kingfisher	Birds Dir Anx 1 W&CA Sch1 Part 1 Local Spp of Cons Conc	8	1	2	1356	SW	30/03/1985	1928	N	16/07/2014
Anas acuta	Pintail	Local Spp of Cons Conc	1		1	1923	SW	16/01/2005	1923	SW	16/01/2005
Anas clypeata	Shoveler	Local Spp of Cons Conc	19		14	1923	SW	17/12/2006	1923	SW	30/12/2007
Anas crecca	Teal	Local Spp of Cons Conc	17		30	1356	SW	11/04/1986	1923	SW	13/08/2006
Anas penelope	Wigeon	Local Spp of Cons Conc	9		120	1356	SW	07/03/1987	1923	SW	17/09/2006
Anas strepera	Gadwall	Local Spp of Cons Conc	30		86	1356	SW	07/03/1987	1923	SW	08/10/2006
Anthus trivialis	Tree Pipit	NERC Act Section 41 BAP Priority National Bird-Red BAP Priority London Local Spp of Cons Conc	4		1	1800	SW	09/05/1982	1800	SW	22/06/1986
Apus apus	Swift	Local Spp of Cons Conc	6		300	608	NW	01/01/2010-31/12/2010	608	NW	01/01/2010-31/12/2010
Ardea cinerea	Grey Heron	Local Spp of Cons Conc	29		6	739	N	2001-2002	1923	SW	17/12/2006
Botaurus stellaris	Bittern	Birds Dir Anx 1 NERC Act Section 41 BAP Priority National W&CA Sch1 Part 1 Bird-Red BAP Priority London	1		1	1356	SW	21/02/1985	1356	SW	21/02/1985
Bucephala clangula	Goldeneye	Local Spp of Cons Conc	4		1	1923	SW	17/04/2006	1923	SW	19/04/2006
Calidris pugnax	Ruff	Birds Dir Anx 1 W&CA Sch1 Part 1 Bird-Red	1		1	1923	SW	28/08/2000	1923	SW	28/08/2000
Charadrius hiaticula	Ringed Plover	Local Spp of Cons Conc	2		1	1923	SW	30/04/1994	1923	SW	26/08/2005
Chlidonias niger	Black Tern	Birds Dir Anx 1 W&CA Sch1 Part 1	6		4	1923	SW	24/07/1994	1923	SW	10/09/2006
Columba oenas	Stock Dove	Local Spp of Cons Conc	3		P	1928	N	23/04/2014	1928	N	14/05/2014
Cuculus canorus	Cuckoo	NERC Act Section 41 BAP Priority National Bird-Red BAP Priority London Local Spp of Cons Conc	2		1	1923	SW	17/04/2001	1923	SW	17/05/2005
Cygnus olor	Mute Swan	Local Spp of Cons Conc	46	3	62	1761	SW	11/06/2004	1923	SW	07/04/2008
Delichon urbicum	House Martin	Local Spp of Cons Conc	3		15	1390	N	Sep 2004	1923	SW	13/10/2004
Dendrocopos minor	Lesser Spotted Woodpecker	Bird-Red BAP Priority London Local Spp of Cons Conc	26		2	1356	SW	21/08/1982	1765	SW	18/02/2007
Egretta garzetta	Little Egret	Birds Dir Anx 1 Local Spp of Cons Conc	1		P	1928	N	24/03/2014	1928	N	24/03/2014
Falco columbarius	Merlin	Birds Dir Anx 1 W&CA Sch1 Part 1	1		2	1923	SW	06/06/1986	1923	SW	06/06/1986
Falco tinnunculus	Kestrel	Local Spp of Cons Conc	2	1	P	1837	N	1986	1928	N	10/09/2014

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
Fringilla montifringilla	Brambling	W&CA Sch1 Part 1	1		1	1356	SW	25/01/1987	1356	SW	25/01/1987
Hirundo rustica	Swallow	Local Spp of Cons Conc	4		85	1390	N	May 2004	1390	N	May 2004
Lanius collurio	Red-backed Shrike	Birds Dir Anx 1 BAP Priority National W&CA Sch1 Part 1 Bird-Red	1		1	1356	SW	26/05/1996	1356	SW	26/05/1996
Larus fuscus	Lesser Black-backed Gull	Local Spp of Cons Conc	18		11	1923	SW	19/11/2006	1923	SW	17/12/2006
Larus melanocephalus	Mediterranean Gull	Birds Dir Anx 1 W&CA Sch1 Part 1	1		1	1923	SW	20/12/1982	1923	SW	20/12/1982
Loxia curvirostra	Common Crossbill	W&CA Sch1 Part 1 Local Spp of Cons Conc	4		11	1765	SW	21/07/1997	1899	N	14/06/2005
Mergellus albellus	Smew	Birds Dir Anx 1	17		4	1923	SW	11/01/1998	1923	SW	12/02/2006
Milvus milvus	Red Kite	Birds Dir Anx 1 W&CA Sch1 Part 1	1		1	1899	N	03/03/1994	1899	N	03/03/1994
Motacilla cinerea	Grey Wagtail	Local Spp of Cons Conc	6		2	478	N	02/08/2004	1928	N	10/09/2014
Motacilla flava	Yellow Wagtail	Bird-Red BAP Priority London Local Spp of Cons Conc	1		1	1923	SW	24/06/1995	1923	SW	24/06/1995
Muscicapa striata	Spotted Flycatcher	NERC Act Section 41 BAP Priority National Bird-Red BAP Priority London Local Spp of Cons Conc	6		6	546	W	28/07/1985	1923	SW	16/09/2003
Numenius arquata	Curlew	NERC Act Section 41 BAP Priority National	1		1	1356	SW	17/07/1984	1356	SW	17/07/1984
Pandion haliaetus	Osprey	Birds Dir Anx 1 W&CA Sch1 Part 1	1		1	1923	SW	25/03/2008	1923	SW	25/03/2008
Passer domesticus	House Sparrow	NERC Act Section 41 BAP Priority National Bird-Red BAP Priority London Local Spp of Cons Conc	68	52	14	86	N	2002	416	W	22/07/2005
Phylloscopus sibilatrix	Wood Warbler	NERC Act Section 41 BAP Priority National Bird-Red BAP Priority London Local Spp of Cons Conc	3	1	1	1765	SW	26/05/1986	1765	SW	01/06/1986
Phylloscopus trochilus	Willow Warbler	Local Spp of Cons Conc	7		25	1279	W	11/06/2004	1279	W	11/06/2004
Pluvialis apricaria	Golden Plover	Birds Dir Anx 1	2		10	1923	SW	04/04/2006	1923	SW	04/04/2006
Prunella modularis	Dunnock	BAP Priority London Local Spp of Cons Conc	2		1	1555	SW	11/06/2004	1555	SW	11/06/2004
Pyrrhula pyrrhula	Bullfinch	BAP Priority London	3		2	1555	SW	11/06/2004	1899	N	25/11/2005
Rallus aquaticus	Water Rail	Local Spp of Cons Conc	7		2	1356	SW	20/07/2005	1923	SW	24/01/2006
Regulus regulus	Goldcrest	Local Spp of Cons Conc	3	2	P	987	NW	03/05/2001	1924	N	24/05/2004
Riparia riparia	Sand Martin	BAP Priority London Local Spp of Cons Conc	2		100	1923	SW	27/04/1986	1923	SW	24/08/2004
Scolopax rusticola	Woodcock	Local Spp of Cons Conc	22		2	1356	SW	17/05/1983	1800	SW	30/12/2007
Sterna hirundo	Common Tern	Birds Dir Anx 1 Local Spp of Cons Conc	4		1	1761	SW	11/06/2004	1923	SW	03/04/2006
Sterna paradisaea	Arctic Tern	Birds Dir Anx 1	6		2	1923	SW	10/08/2006	1923	SW	13/08/2006
Sterna sandvicensis	Sandwich Tern	Birds Dir Anx 1	1		1	1923	SW	11/09/1999	1923	SW	11/09/1999
Strix aluco	Tawny Owl	Local Spp of Cons Conc	7		1	1765	SW	05/02/1998	1830	N	06/08/2003

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
Sturnus vulgaris	Starling	Bird-Red BAP Priority London Local Spp of Cons Conc	1		P	1903	N	24/05/2004	1903	N	24/05/2004
Tadorna tadorna	Shelduck	Local Spp of Cons Conc	3		2	1923	SW	23/09/1998	1923	SW	21/08/2005
Tringa nebularia	Greenshank	W&CA Sch1 Part 1	12		3	1923	SW	07/08/2006	1923	SW	07/08/2006
Tringa ochropus	Green Sandpiper	W&CA Sch1 Part 1	3		5	1356	SW	22/07/1986	1923	SW	25/07/1999
Turdus iliacus	Redwing	W&CA Sch1 Part 1 Bird-Red	2		30	1356	SW	19/10/1985	1356	SW	19/10/1985
Turdus philomelos	Song Thrush	Bird-Red BAP Priority London Local Spp of Cons Conc	11	1	P	1254	SW	20/05/2004	1928	N	24/07/2014
Turdus pilaris	Fieldfare	W&CA Sch1 Part 1 Bird-Red	2		30	1356	SW	29/10/1983	1923	SW	27/01/1987
Turdus viscivorus	Mistle Thrush	Local Spp of Cons Conc	2		P	1928	N	23/04/2014	1928	N	09/07/2014
Mammals (Excl. Bats)											
Arvicola amphibius	European Water Vole	NERC Act Section 41 BAP Priority National W&CA Sch5 Sec 9.1k/i W&CA Sch5 Sec 9.1t WCA5/9.4.a W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London Local Spp of Cons Conc	2		1	1356	SW	May 2003	1356	SW	May 2003
Mammals (Bats)											
Eptesicus serotinus	Serotine	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London Local Spp of Cons Conc	1		P	1842	SW	13/05/2006	1842	SW	13/05/2006
Mammals (Excl. Bats)											
Erinaceus europaeus	West European Hedgehog	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	7		P	739	N	2001-2002	1814	N	2004
Mammals (Bats)											
Myotis	Unidentified Bat	Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London	1		P	1842	SW	13/05/2006	1842	SW	13/05/2006
Myotis daubentonii	Daubenton's Bat	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London Local Spp of Cons Conc	5		P	1336	SW	19/05/2001	1842	SW	13/05/2006

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
Nyctalus leisleri	Lesser Noctule	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London Local Spp of Cons Conc	1		P	1842	SW	13/05/2006	1842	SW	13/05/2006
Nyctalus noctula	Noctule Bat	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 NERC Act Section 41 BAP Priority National W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London Local Spp of Cons Conc	3		P	1336	SW	19/05/2001	1842	SW	13/05/2006
Pipistrellus	Pipistrelle Bat species	Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London	8		P	1482	N	26/06/1996	1842	SW	21/08/2007
Pipistrellus pipistrellus	Common Pipistrelle	Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London	8		P	1336	SW	19/05/2001	1842	SW	21/08/2007
Pipistrellus pygmaeus	Soprano Pipistrelle	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 NERC Act Section 41 BAP Priority National W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London Local Spp of Cons Conc	4		P	1336	SW	19/05/2001	1416	N	22/07/2007
Plecotus auritus	Brown Long-eared Bat	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 NERC Act Section 41 BAP Priority National W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London Local Spp of Cons Conc	1		P	1970	N	2005	1970	N	2005
Vespertilionidae	Bats	Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London	6		P	739	N	2001-2002	1814	N	2005
Lichens											
Xanthoria ulophyllodes	Xanthoria ulophyllodes	Nationally Rare	1		P	1686	SW	2006	1686	SW	2006
Higher Plants (Conifers)											
Pinus sylvestris	Scots Pine	Nationally Scarce	6		P	515	SW	19/10/2004	515	SW	19/10/2004
Higher Plants (Flowering Plants)											
Anthemis cotula	Stinking Chamomile	RedList_GB-VU	2		P	1761	SW	11/06/2004	1761	SW	11/06/2004

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
Cyperus longus	Galingale	Nationally Scarce RedList_GB-Lr(NT)	2		P	817	SW	06/10/2004	1843	N	19/10/2004
Genista anglica	Petty Whin	Local Spp of Cons Conc RedList_GB-Lr(NT)	4		P	1232	W	1995	1555	SW	11/06/2004
Hyacinthoides non-scripta	Bluebell	W&CA Sch8 Local Spp of Cons Conc	6		P	937	N	02/08/2004	937	N	02/08/2004
Lepidium latifolium	Dittander	Nationally Scarce	1		P	1761	SW	11/06/2004	1761	SW	11/06/2004
Melampyrum pratense	Common Cow-wheat	Local Spp of Cons Conc	5		P	1555	SW	11/06/2004	1555	SW	11/06/2004
Narcissus pseudonarcissus	Daffodil	Local Spp of Cons Conc	2		P	437	N	1987	437	N	1987
Pedicularis sylvatica	Lousewort	Local Spp of Cons Conc	3		P	1618	SW	1999	1618	SW	1999
Pedicularis sylvatica subsp. sylvatica	Lousewort	Local Spp of Cons Conc	1		P	1634	SW	1967	1634	SW	1967
Polygala serpyllifolia	Heath Milkwort	Local Spp of Cons Conc	2		P	1889	N	1999	1889	N	1999
Polygonatum multiflorum	Solomon's-seal	Local Spp of Cons Conc	1		P	1995	N	06/08/2003	1995	N	06/08/2003
Populus nigra subsp. betulifolia	Black Poplar	BAP Priority London	1		P	384	N	06/10/2004	384	N	06/10/2004
Ranunculus arvensis	Corn Buttercup	NERC Act Section 41 BAP Priority National RedList_GB-CR	1		P	866	N	1952	866	N	1952
Rosa spinosissima	Burnet Rose	Local Spp of Cons Conc	1		P	1761	SW	11/06/2004	1761	SW	11/06/2004
Rosa stylosa	Short-styled Field-rose	Local Spp of Cons Conc	2		P	725	N	2003	725	N	2003
Succisa pratensis	Devil's-bit Scabious	Local Spp of Cons Conc	3		P	1407	N	11/09/2003	1862	N	06/05/2004
Ulex minor	Dwarf Gorse	Local Spp of Cons Conc	2		P	1555	SW	11/06/2004	1555	SW	11/06/2004
Viscum album	Mistletoe	BAP Priority London Local Spp of Cons Conc	2		P	1620	NW	2002	1620	NW	2002
Invertebrates - Odonata (Dragonflies & Damselflies)											
Erythromma najas	Red-eyed Damselfly	Local Spp of Cons Conc	1		2	1923	SW	26/07/2014	1923	SW	26/07/2014
Sympetrum sanguineum	Ruddy Darter	Local Spp of Cons Conc	6		4	1274	SW	27/07/2013	1370	W	24/08/2014
Invertebrates - Coleoptera (Beetles)											
Bycticus populi	Poplar Leaf-rolling Weevil	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	2		1	1356	SW	15/07/2002	1914	SW	Jul 2002
Lucanus cervus	Stag Beetle	Hab&Spp Dir Anx 2np NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc Nationally Notable B	7		9	634	N	22/07/2005	1675	N	25/06/2010
Invertebrates - Lepidoptera (Butterflies)											
Apatura iris	Purple Emperor	Local Spp of Cons Conc RedList_GB-Lr(NT)	15		5	1191	SW	18/07/2010	1904	N	24/07/2010
Argynnis paphia	Silver-washed Fritillary	Local Spp of Cons Conc	2		1	1390	N	25/07/2007- 06/08/2007	1904	N	24/07/2008
Aricia agestis	Brown Argus	Local Spp of Cons Conc	3		4	1904	N	07/08/2008	1928	N	30/07/2014

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
Coenonympha pamphilus	Small Heath	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc RedList_GB-Lr(NT)	2		1	1555	SW	11/06/2004	1618	SW	28/07/2008
Limenitis camilla	White Admiral	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc RedList_GB-VU	29		33	1191	SW	18/07/2010	1904	N	24/07/2010
Melanargia galathea subsp. serena	Marbled White	Local Spp of Cons Conc	4		2	1079	SW	24/07/2006	1191	SW	18/07/2010
Satyrium w-album	White-letter Hairstreak	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc RedList_GB-EN	1		1	1879	N	19/07/2010	1879	N	19/07/2010
Invertebrates - Lepidoptera (Moths)											
Acronicta psi	Grey Dagger	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	3		1	479	N	1978	1555	SW	30/06/2000
Acronicta rumicis	Knot Grass	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	3		1	479	N	1978	1555	SW	2001
Agrochola litura	Brown-spot Pinion	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1		P	479	N	1978	479	N	1978
Allophyes oxyacanthae	Green-brindled Crescent	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	7		5	479	N	1978	1356	SW	23/10/2012
Amphipoea oculea	Ear Moth	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1		1	1356	SW	08/08/2013	1356	SW	08/08/2013
Amphipyra tragopoginis	Mouse Moth	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1		1	479	N	1978	479	N	1978
Aporophyla lutulenta	Deep-brown Dart	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1		1	479	N	1978	479	N	1978
Arctia caja	Garden Tiger	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1		1	479	N	1978	479	N	1978

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Asteroscopus sphinx	Sprawler	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	5		1	1356	SW	09/11/2011	1356	SW	09/11/2011
Brachylomia viminalis	Minor Shoulder-knot	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	6		1	1555	SW	07/07/2000	1555	SW	18/08/2000
Calamotropha paludella	Bulrush Veneer	Nationally Notable B	1		1	1356	SW	13/08/2012	1356	SW	13/08/2012
Callistege mi	Mother Shipton	Local Spp of Cons Conc	2		1	1555	SW	25/04/2011	1555	SW	25/04/2011
Caradrina morpheus	Mottled Rustic	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	7		1	479	N	1978	1555	SW	2001
Diarsia rubi	Small Square-spot	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	11		2	479	N	1978	1356	SW	17/05/2011
Dichonia aprilina	Merveille Du Jour	Local Spp of Cons Conc	2		1	1555	SW	23/06/1905	1555	SW	2001
Ecliptopera silaceata	Small Phoenix	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	8		2	1356	SW	20/08/2012	1356	SW	22/08/2012
Eilema depressa	Buff Footman	Local Spp of Cons Conc	1		1	1356	SW	27/07/2010	1356	SW	27/07/2010
Eilema griseola	Dingy Footman	Local Spp of Cons Conc	10		9	1356	SW	09/08/2012	1356	SW	08/08/2013
Ennomos fuscantaria	Dusky Thorn	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	2		1	1555	SW	23/06/1905	1555	SW	2001
Eulithis mellinata	Spinach	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	3		1	479	N	1978	1555	SW	2001
Hemistola chrysoprasaria	Small Emerald	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	2		1	1555	SW	21/07/2000	1555	SW	21/07/2000
Hepialus humuli	Ghost Moth	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	6		1	1555	SW	02/06/2000	1555	SW	2001
Hoplodrina blanda	Rustic	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	5		1	479	N	1978	1555	SW	04/08/2000
Hydraecia micacea	Rosy Rustic	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1		1	479	N	1978	479	N	1978
Hypomecis roboraria	Great Oak Beauty	Local Spp of Cons Conc	2		1	1555	SW	17/06/2000	1555	SW	17/06/2000

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Lycia hirtaria	Brindled Beauty	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1		1	479	N	1978	479	N	1978
Malacosoma neustria	Lackey	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1		P	479	N	1978	479	N	1978
Melanchra persicariae	Dot Moth	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1		P	479	N	1978	479	N	1978
Mythimna comma	Shoulder-striped Wainscot	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	10		1	479	N	1978	1356	SW	01/07/2010
Orthosia gracilis	Powdered Quaker	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1		1	479	N	1978	479	N	1978
Orthosia populeti	Lead-coloured Drab	Local Spp of Cons Conc	2		1	1356	SW	09/04/2010	1555	SW	29/03/2011
Parascotia fuliginaria	Waved Black	Local Spp of Cons Conc	2		1	1356	SW	12/07/2010	1356	SW	21/07/2011
Pelurga comitata	Dark Spinach	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1		1	479	N	1978	479	N	1978
Scotopteryx chenopodiata	Shaded Broad-bar	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	11		1	1336	SW	10/07/2011	1555	SW	03/08/2013
Spilosoma lubricipeda	White Ermine	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	12		1	479	N	1978	1356	SW	22/06/2010
Spilosoma luteum	Buff Ermine	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	25		7	479	N	1978	1356	SW	26/07/2012
Tholera cespitis	Hedge Rustic	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	2		1	1356	SW	02/09/2012	1356	SW	02/09/2012
Thumatha senex	Round-winged Muslin	Local Spp of Cons Conc	5		1	1356	SW	20/07/2012	1356	SW	20/07/2012
Timandra comae	Blood-Vein	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	6		1	479	N	1978	1356	SW	25/06/2012
Tyria jacobaeae	Cinnabar	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	5		1	1336	SW	10/07/2011	1336	SW	10/07/2011

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Watsonalla binaria	Oak Hook-tip	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	6		2	1356	SW	27/07/2010	1356	SW	08/08/2013
Xanthia icteritia	Sallow	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	5		1	1356	SW	08/10/2010	1356	SW	08/10/2010
Invertebrates - Hymenoptera (Ants, Bees, Sawflies & Wasps)											
Andrena (Zonandrena) flavipes	Yellow Legged Mining Bee	Local Spp of Cons Conc	1		P	1618	SW	2006	1618	SW	2006
Cerceris rybyensis	Ornate Tailed Digger Wasp	Local Spp of Cons Conc	1		P	1618	SW	2006	1618	SW	2006
Sphecodes niger	Sphecodes niger	Local Spp of Cons Conc	1		P	1618	SW	2006	1618	SW	2006

Protected species and Species of Conservation Concern – Coarse Resolution Records

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

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
Birds						
Acanthis flammea	Common (Mealy) Redpoll	BAP Priority London Local Spp of Cons Conc	5	1km	17/10/2010	20/11/2010
Alauda arvensis	Skylark	NERC Act Section 41 Bird-Red BAP Priority London Local Spp of Cons Conc	1	1km	17/10/2010	17/10/2010
Alcedo atthis	Kingfisher	Birds Dir Anx 1 W&CA Sch1 Part 1 Local Spp of Cons Conc	3	1km	17/10/2010	18/12/2010
Anas clypeata	Shoveler	Local Spp of Cons Conc	6	1km	17/10/2010	30/11/2010
Anas crecca	Teal	Local Spp of Cons Conc	7	1km	17/10/2010	24/12/2010
Anas penelope	Wigeon	Local Spp of Cons Conc	7	1km	17/10/2010	30/11/2010
Anas strepera	Gadwall	Local Spp of Cons Conc	7	1km	17/10/2010	30/11/2010
Apus apus	Swift	Local Spp of Cons Conc	2	1km	01/01/2009-31/12/2009	01/01/2009-31/12/2009
Ardea cinerea	Grey Heron	Local Spp of Cons Conc	1	1km	08/11/2010	08/11/2010
Cygnus olor	Mute Swan	Local Spp of Cons Conc	2	1km	17/10/2010	30/10/2010
Egretta garzetta	Little Egret	Birds Dir Anx 1 Local Spp of Cons Conc	3	1km	30/11/2010	24/12/2010
Falco tinnunculus	Kestrel	Local Spp of Cons Conc	1	1km	05/12/2010	05/12/2010
Fringilla montifringilla	Brambling	W&CA Sch1 Part 1	1	1km	17/10/2010	17/10/2010
Gallinago gallinago	Snipe	Local Spp of Cons Conc	3	1km	30/11/2010	24/12/2010
Larus argentatus	Herring Gull	Bird-Red BAP Priority London Local Spp of Cons Conc	1	1km	10/11/2010	10/11/2010
Mergellus albellus	Smew	Birds Dir Anx 1	2	1km	30/11/2010	05/12/2010
Motacilla cinerea	Grey Wagtail	Local Spp of Cons Conc	4	1km	17/10/2010	24/12/2010
Pyrrhula pyrrhula	Bullfinch	BAP Priority London	3	1km	03/11/2010	05/12/2010
Rallus aquaticus	Water Rail	Local Spp of Cons Conc	2	1km	23/10/2010	30/11/2010
Regulus regulus	Goldcrest	Local Spp of Cons Conc	4	1km	17/10/2010	20/11/2010
Strix aluco	Tawny Owl	Local Spp of Cons Conc	1	1km	23/10/2010	23/10/2010

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
Sturnus vulgaris	Starling	Bird-Red BAP Priority London Local Spp of Cons Conc	1	1km	08/11/2010	08/11/2010
Turdus iliacus	Redwing	W&CA Sch1 Part 1 Bird-Red	2	1km	23/10/2010	03/11/2010
Turdus pilaris	Fieldfare	W&CA Sch1 Part 1 Bird-Red	3	1km	03/11/2010	18/12/2010
Mammals (Bats)						
Myotis	Unidentified Bat	Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London	1	1km	30/05/2009	30/05/2009
Myotis daubentonii	Daubenton's Bat	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London Local Spp of Cons Conc	3	1km	07/04/1995	30/05/2009
Nyctalus noctula	Noctule Bat	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 NERC Act Section 41 BAP Priority National W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London Local Spp of Cons Conc	3	1km	07/04/1995	30/05/2009
Pipistrellus pipistrellus	Common Pipistrelle	Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London	3	1km	07/04/1995	30/05/2009
Pipistrellus pygmaeus	Soprano Pipistrelle	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 NERC Act Section 41 BAP Priority National W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London Local Spp of Cons Conc	1	1km	30/05/2009	30/05/2009
Higher Plants (Horsetails)						
Equisetum sylvaticum	Wood Horsetail	Local Spp of Cons Conc	1	1km	1945	1945
Higher Plants (Ferns)						
Blechnum spicant	Hard-fern	Local Spp of Cons Conc	2	10km	1907	1980
Oreopteris limbosperma	Lemon-scented Fern	Local Spp of Cons Conc	2	10km	1974	02/08/1998
Higher Plants (Conifers)						
Pinus sylvestris	Scots Pine	Nationally Scarce	6	10km	1936	1995
Higher Plants (Flowering Plants)						

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
Adonis annua	Pheasant's-eye	NERC Act Section 41 BAP Priority National Nationally Scarce RedList_GB-EN	2	10km	1884	1884
Aira caryophyllea	Silver Hair-grass	Local Spp of Cons Conc	2	10km	1951	06/08/1978
Allium oleraceum	Field Garlic	RedList_GB-VU	2	10km	24/06/1998	04/07/1998
Alopecurus aequalis	Orange Foxtail	Local Spp of Cons Conc	4	1km, 2km, 10km	1995	2003
Althaea hirsuta	Rough Marsh-mallow	W&CA Sch8	1	2km	1997	1997
Anthemis cotula	Stinking Chamomile	RedList_GB-VU	4	1km, 10km	1912	02/07/1988
Apera spica-venti	Loose Silky-bent	Local Spp of Cons Conc RedList_GB-Lr(NT)	4	1km, 10km	07/10/1926	1997
Arabis glabra	Tower Mustard	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc Nationally Scarce RedList_GB-EN	4	10km	1860	1991
Atriplex littoralis	Grass-leaved Orache	Local Spp of Cons Conc	1	10km	1900	1900
Bromus hordeaceus subsp. thominei	Sand Soft-brome	Nationally Scarce	1	10km	1965-1976	1965-1976
Bromus interruptus	Interrupted Brome	NERC Act Section 41 BAP Priority National RedList_GB-EW	8	1km, 10km	1898	1907
Bromus racemosus	Smooth Brome	Local Spp of Cons Conc	1	10km	2007	2007
Buxus sempervirens	Box	Nationally Rare RedList_GB-DD	4	10km	1980	2001
Cardamine bulbifera	Coralroot	Local Spp of Cons Conc Nationally Scarce	13	10km	1901	24/05/2003
Cardamine impatiens	Narrow-leaved Bitter-cress	BAP Priority London Local Spp of Cons Conc Nationally Scarce RedList_GB-Lr(NT)	1	10km	1988	1988
Carex appropinquata	Fibrous Tussock-sedge	Nationally Scarce RedList_GB-Lr(NT)	2	10km	1910	1936
Carex binervis	Green-ribbed Sedge	Local Spp of Cons Conc	2	10km	1948	1948
Carex caryophyllea	Spring-sedge	Local Spp of Cons Conc	5	2km, 10km	1920	1965
Carex panicea	Carnation Sedge	Local Spp of Cons Conc	3	2km, 10km	1947	1965
Carex paniculata	Greater Tussock-sedge	Local Spp of Cons Conc	3	10km	1945	1995
Carex paniculata x appropinquata = C. x rotae	Sedge	Nationally Rare RedList_GB-VU	1	10km	1880	1880
Carex riparia	Greater Pond-sedge	Local Spp of Cons Conc	5	10km	1945	05/05/2002
Catabrosa aquatica	Whorl-grass	Local Spp of Cons Conc	3	10km	1915	1940
Centaurea cyanus	Cornflower	NERC Act Section 41 BAP Priority National	7	10km	1820	1992
Cephalanthera damasonium	White Helleborine	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc RedList_GB-VU	1	10km	1944	1944
Ceratocapnos claviculata	Climbing Corydalis	Local Spp of Cons Conc	3	10km	1947	1979

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
Chamaemelum nobile	Chamomile	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc RedList_GB-VU	3	10km	1890	1939
Chenopodium bonus-henricus	Good-King-Henry	RedList_GB-VU	3	10km	1943	1994
Chenopodium glaucum	Oak-leaved Goosefoot	Nationally Scarce RedList_GB-VU	1	10km	1949	1949
Chenopodium murale	Nettle-leaved Goosefoot	Local Spp of Cons Conc RedList_GB-VU	5	10km	1951	1991
Chrysosplenium oppositifolium	Opposite-leaved Golden-saxifrage	Local Spp of Cons Conc	2	10km	1936	1955
Clinopodium acinos	Basil Thyme	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc RedList_GB-VU	2	10km	1953	1981
Clinopodium ascendens	Common Calamint	Local Spp of Cons Conc	1	10km	1906	1906
Clinopodium calamintha	Lesser Calamint	BAP Priority London Local Spp of Cons Conc Nationally Scarce RedList_GB-VU	5	10km	1903	04/07/1998
Coeloglossum viride	Frog Orchid	NERC Act Section 41 BAP Priority National Local Spp of Cons Conc RedList_GB-VU	1	10km	1906	1906
Convallaria majalis	Lily-of-the-valley	Local Spp of Cons Conc	5	2km, 10km	1950	1978
Dactylorhiza maculata subsp. ericetorum	Heath Spotted-Orchid	Local Spp of Cons Conc	6	1km, 10km	1900	2001
Dianthus armeria	Deptford Pink	NERC Act Section 41 BAP Priority National W&CA Sch8 Local Spp of Cons Conc Nationally Scarce RedList_GB-EN	4	10km	1860	1909
Dipsacus pilosus	Small Teasel	Local Spp of Cons Conc	6	10km	1913	04/10/1997
Draba muralis	Wall Whitlowgrass	Nationally Scarce	1	10km	1951	1951
Eleocharis acicularis	Needle Spike-rush	Local Spp of Cons Conc	7	1km, 2km, 10km	14/07/1929	2003
Epilobium palustre	Marsh Willowherb	Local Spp of Cons Conc	3	10km	1950	1972
Epipactis purpurata	Violet Helleborine	Local Spp of Cons Conc	6	1km, 2km, 10km	1872	1987
Erica cinerea	Bell Heather	Local Spp of Cons Conc	2	10km	1965-1976	1977
Erica tetralix	Cross-leaved Heath	Local Spp of Cons Conc	3	10km	1944	02/08/1998
Eriophorum angustifolium	Common Cottongrass	Local Spp of Cons Conc	2	10km	1945	1947
Euphorbia exigua	Dwarf Spurge	RedList_GB-Lr(NT)	1	10km	04/07/1998	04/07/1998
Filago minima	Small Cudweed	Local Spp of Cons Conc	3	10km	1946	02/08/1998
Fritillaria meleagris	Fritillary	Nationally Scarce	7	1km, 10km	1872	2002
Fumaria purpurea	Purple Ramping-fumitory	NERC Act Section 41 BAP Priority National Nationally Scarce	3	10km	1892	1892

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
Galeopsis angustifolia	Red Hemp-nettle	NERC Act Section 41 BAP Priority National Local Spp of Cons Conc Nationally Scarce RedList_GB-CR	7	10km	1874	1955
Genista anglica	Petty Whin	Local Spp of Cons Conc RedList_GB-Lr(NT)	11	1km, 2km, 10km	1950	2003
Genista tinctoria subsp. tinctoria	Dyer's Greenweed	Local Spp of Cons Conc	2	10km	04/07/1998	10/06/2001
Gentianella germanica	Chiltern Gentian	Nationally Scarce RedList_GB-VU	3	10km	1945	1977
Geranium columbinum	Long-stalked Crane's-bill	Local Spp of Cons Conc	4	10km	1951	2003
Geranium pratense	Meadow Crane's-bill	Local Spp of Cons Conc	7	1km, 10km	1945	1990
Glebionis segetum	Corn Marigold	RedList_GB-VU	6	10km	1902	1993
Gnaphalium sylvaticum	Heath Cudweed	RedList_GB-EN	4	10km	16/08/1924	25/09/1998
Gymnadenia conopsea	Fragrant Orchid	Local Spp of Cons Conc	2	10km	1946	1965
Helleborus foetidus	Stinking Hellebore	Nationally Scarce	1	10km	1999	1999
Hieracium diaphanum	Petite-leaved Hawkweed	Nationally Rare	1	1km	1920	1920
Hordelymus europaeus	Wood Barley	Nationally Scarce	1	10km	1935	1935
Hyacinthoides non-scripta	Bluebell	W&CA Sch8 Local Spp of Cons Conc	8	1km, 2km, 10km	1965-1976	06/10/2002
Hydrocharis morsus-ranae	Frogbit	RedList_GB-VU	4	10km	1945	1965
Hydrocotyle vulgaris	Marsh Pennywort	Local Spp of Cons Conc	4	10km	1945	24/05/2003
Hyoscyamus niger	Henbane	Local Spp of Cons Conc RedList_GB-VU	2	10km	1917	1935
Isatis tinctoria	Woad	Nationally Scarce	1	10km	1995	1995
Isolepis fluitans	Floating Club-rush	Local Spp of Cons Conc	1	10km	1983	1983
Jasione montana	Sheep's-bit	Local Spp of Cons Conc	1	10km	07/09/1912	07/09/1912
Juncus squarrosus	Heath Rush	Local Spp of Cons Conc	1	10km	1947	1947
Koeleria macrantha	Crested Hair-grass	Local Spp of Cons Conc	2	10km	1947	04/07/1998
Lathyrus aphaca	Yellow Vetchling	Local Spp of Cons Conc Nationally Scarce RedList_GB-VU	2	10km	1907	1995
Lathyrus linifolius	Bitter-vetch	Local Spp of Cons Conc	5	2km, 10km	1910	1990
Lepidium latifolium	Dittander	Nationally Scarce	15	1km, 10km	1937	2003
Lepidium ruderale	Narrow-leaved Pepperwort	Local Spp of Cons Conc	5	10km	1946	1997
Linaria repens	Pale Toadflax	Local Spp of Cons Conc	1	10km	2001	2001
Lolium temulentum	Darnel	NERC Act Section 41 BAP Priority National Nationally Rare RedList_GB-CR	1	10km	1965-1976	1965-1976
Meconopsis cambrica	Welsh Poppy	Nationally Scarce	2	1km, 10km	1947	1981
Medicago polymorpha	Toothed Medick	Local Spp of Cons Conc Nationally Scarce	2	10km	1911	1961
Medicago sativa subsp. falcata	Sickle Medick	Nationally Scarce	1	10km	1912	1912
Melampyrum pratense	Common Cow-wheat	Local Spp of Cons Conc	6	1km, 10km	1965-1976	1995
Mentha pulegium	Pennyroyal	NERC Act Section 41 BAP Priority National W&CA Sch8 BAP Priority London Local Spp of Cons Conc Nationally Scarce RedList_GB-EN	1	1km	1880	1880

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Minuartia hybrida	Fine-leaved Sandwort	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc Nationally Scarce RedList_GB-EN	2	10km	1951	1979
Moenchia erecta	Upright Chickweed	Local Spp of Cons Conc	2	10km	1936	1940
Myosurus minimus	Mousetail	RedList_GB-VU	1	10km	1934	1934
Myriophyllum alterniflorum	Alternate Water-milfoil	Local Spp of Cons Conc	1	10km	2002	2002
Myriophyllum verticillatum	Whorled Water-milfoil	Local Spp of Cons Conc RedList_GB-VU	3	10km	1911	1981
Narcissus pseudonarcissus	Daffodil	Local Spp of Cons Conc	4	1km, 10km	1950	2002
Nepeta cataria	Cat-mint	RedList_GB-VU	1	10km	1999	1999
Oenanthe fistulosa	Tubular Water-dropwort	NERC Act Section 41 BAP Priority National RedList_GB-VU	1	10km	1910	1910
Oenanthe fluviatilis	River Water-dropwort	BAP Priority London Local Spp of Cons Conc	1	10km	24/05/2003	24/05/2003
Ononis spinosa	Spiny Restharrow	Local Spp of Cons Conc	5	1km, 2km, 10km	1950	1976
Ophrys insectifera	Fly Orchid	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc RedList_GB-VU	9	2km, 10km	23/05/1889	1902
Orchis mascula	Early-purple Orchid	Local Spp of Cons Conc	1	10km	1945	1945
Orchis morio	Green-winged Orchid	Local Spp of Cons Conc RedList_GB-Lr(NT)	1	10km	22/05/1902	22/05/1902
Papaver argemone	Prickly Poppy	RedList_GB-VU	2	10km	1982	1986
Paris quadrifolia	Herb-paris	Local Spp of Cons Conc	3	2km, 10km	12/05/1934	1965
Pedicularis sylvatica	Lousewort	Local Spp of Cons Conc	7	2km, 10km	1944	22/05/1983
Pedicularis sylvatica subsp. sylvatica	Lousewort	Local Spp of Cons Conc	3	10km	1983	1994
Persicaria mitis	Tasteless Water-pepper	Local Spp of Cons Conc Nationally Scarce RedList_GB-VU	1	10km	1975	1975
Polygala serpyllifolia	Heath Milkwort	Local Spp of Cons Conc	11	2km, 10km	1939	1981
Polygonatum multiflorum	Solomon's-seal	Local Spp of Cons Conc	1	10km	1995	1995
Polygonatum odoratum	Angular Solomon's-seal	Nationally Scarce	1	10km	1995	1995
Polygonum rurivagum	Cornfield Knotgrass	Local Spp of Cons Conc	1	10km	1960	1960
Populus nigra subsp. betulifolia	Black Poplar	BAP Priority London	1	10km	1995	1995
Potamogeton lucens	Shining Pondweed	Local Spp of Cons Conc	9	1km, 2km, 10km	1934	1976
Potamogeton perfoliatus	Perfoliate Pondweed	Local Spp of Cons Conc	2	10km	1945	1945
Potamogeton polygonifolius	Bog Pondweed	Local Spp of Cons Conc	3	10km	1892	1970
Potentilla anglica	Trailing Tormentil	Local Spp of Cons Conc	5	10km	1900	1982
Potentilla argentea	Hoary Cinquefoil	Local Spp of Cons Conc RedList_GB-Lr(NT)	1	10km	1900	1900
Ranunculus arvensis	Corn Buttercup	NERC Act Section 41 BAP Priority National RedList_GB-CR	9	10km	1900	1989
Ranunculus fluitans	River Water-crowfoot	Local Spp of Cons Conc	2	10km	1984	1984
Ranunculus hederaceus	Ivy-leaved Crowfoot	Local Spp of Cons Conc	3	10km	1869	1928
Rorippa islandica	Northern Yellow-cress	Nationally Scarce	4	1km, 10km	1965-1976	1965-1976

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Rosa obtusifolia	Round-leaved Dog-rose	Local Spp of Cons Conc	5	1km, 10km	1945	1947
Rosa spinosissima	Burnet Rose	Local Spp of Cons Conc	2	1km, 10km	1998	1998
Rosa stylosa	Short-styled Field-rose	Local Spp of Cons Conc	1	1km	1976	1976
Rubus britannicus	Bramble	Nationally Rare	1	10km	11/10/1998	11/10/1998
Rumex palustris	Marsh Dock	Local Spp of Cons Conc	1	10km	2004	2004
Sagittaria sagittifolia	Arrowhead	Local Spp of Cons Conc	2	1km, 10km	1949	1965-1976
Salix aurita	Eared Willow	Local Spp of Cons Conc	3	1km, 10km	1924	2002
Salix repens var. repens	Willow	Local Spp of Cons Conc	6	2km, 10km	1948	1965
Scandix pecten-veneris	Shepherd's-needle	NERC Act Section 41 BAP Priority National Local Spp of Cons Conc RedList_GB-CR	3	10km	1884	1927
Scleranthus annuus	Annual Knawel	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc RedList_GB-EN	15	10km	1869	1987
Scutellaria minor	Lesser Skullcap	Local Spp of Cons Conc	10	1km, 2km, 10km	1891	1989
Sedum forsterianum	Rock Stonecrop	Nationally Scarce	1	10km	1946	1946
Sedum telephium	Orpine	Local Spp of Cons Conc	4	10km	1903	1951
Serratula tinctoria	Saw-wort	Local Spp of Cons Conc	3	2km, 10km	1920	1965
Silene gallica	Small-flowered Catchfly	NERC Act Section 41 BAP Priority National Nationally Scarce RedList_GB-EN	1	10km	1900	1900
Sium latifolium	Greater Water-parsnip	NERC Act Section 41 BAP Priority National Nationally Scarce RedList_GB-EN	3	10km	1911	1945
Spergula arvensis	Corn Spurrey	RedList_GB-VU	3	2km, 10km	1946	1991
Stachys arvensis	Field Woundwort	RedList_GB-Lr(NT)	2	2km, 10km	1965	1965
Stellaria neglecta	Greater Chickweed	Local Spp of Cons Conc	2	2km, 10km	1946	1946
Stellaria palustris	Marsh Stitchwort	NERC Act Section 41 BAP Priority National RedList_GB-VU	2	10km	1839	20/09/1890
Stratiotes aloides	Water-soldier	Nationally Rare RedList_GB-Lr(NT)	4	10km	1889	1995
Succisa pratensis	Devil's-bit Scabious	Local Spp of Cons Conc	6	1km, 10km	1965-1976	1998
Teesdalia nudicaulis	Shepherd's Cress	RedList_GB-Lr(NT)	1	10km	1893	1893
Thalictrum flavum	Common Meadow-rue	Local Spp of Cons Conc	5	10km	1902	1947
Torilis arvensis	Spreading Hedge-parsley	NERC Act Section 41 BAP Priority National Nationally Scarce RedList_GB-EN	6	10km	1889	1986
Ulex minor	Dwarf Gorse	Local Spp of Cons Conc	8	1km, 2km, 10km	1921	1999
Valeriana dioica	Marsh Valerian	Local Spp of Cons Conc	2	10km	1947	1957
Valeriana officinalis	Common Valerian	Local Spp of Cons Conc	3	1km, 2km, 10km	1965-1976	1965-1976
Valerianella rimosa	Broad-fruited Cornsalad	NERC Act Section 41 BAP Priority National Nationally Scarce RedList_GB-EN	2	1km, 10km	1885	1887
Veronica scutellata	Marsh Speedwell	Local Spp of Cons Conc	4	2km, 10km	14/06/1919	24/06/1989

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
Vicia lutea	Yellow-vetch	Nationally Scarce RedList_GB-Lr(NT)	1	10km	1979	1979
Viola canina subsp. canina	Heath Dog-Violet	Local Spp of Cons Conc RedList_GB-Lr(NT)	9	2km, 10km	1902	1957
Viola tricolor subsp. tricolor	Pansy	RedList_GB-Lr(NT)	2	10km	10/09/1910	1946
Viscum album	Mistletoe	BAP Priority London Local Spp of Cons Conc	8	1km, 10km	1928	2002
Invertebrates - Lepidoptera (Butterflies)						
Apatura iris	Purple Emperor	Local Spp of Cons Conc RedList_GB-Lr(NT)	109	1km, 10km	14/07/2002	11/08/2013
Argynnis paphia	Silver-washed Fritillary	Local Spp of Cons Conc	16	1km	12/07/2003	27/08/2013
Aricia agestis	Brown Argus	Local Spp of Cons Conc	16	1km	07/08/2008	08/08/2013
Coenonympha pamphilus	Small Heath	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc RedList_GB-Lr(NT)	28	1km	24/06/1996	25/06/2013
Limenitis camilla	White Admiral	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc RedList_GB-VU	255	1km	1995	08/08/2013
Melanargia galathea	Marbled White	Local Spp of Cons Conc	74	1km	12/07/2003	24/07/2013
Melitaea athalia	Heath Fritillary	NERC Act Section 41 BAP Priority National W&CA Sch5 Sec 9.1k/i W&CA Sch5 Sec 9.1t WCA5/9.4.a W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London Local Spp of Cons Conc RedList_GB-EN	4	1km	09/07/2005	10/07/2005
Satyrium w-album	White-letter Hairstreak	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc RedList_GB-EN	2	1km	19/07/2010	19/07/2010
Invertebrates - Lepidoptera (Moths)						
Acronicta psi	Grey Dagger	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	4	1km, 10km	1918	1961
Acronicta rumicis	Knot Grass	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	7	10km	1940	1978
Adscita statices	Forester	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1	10km	31/12/1940	31/12/1940

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Agrochola helvola	Flounced Chestnut	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	3	10km	1930	1952
Agrochola litura	Brown-spot Pinion	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	3	10km	1940	1961
Agrochola lychnidis	Beaded Chestnut	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	5	10km	1940	1978
Allophyes oxyacanthae	Green-brindled Crescent	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	7	1km, 10km	1918	1978
Amphipoea oculea	Ear Moth	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	2	10km	1940	1977
Amphipyra tragopoginis	Mouse Moth	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	4	10km	1940	1978
Apamea anceps	Large Nutmeg	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	3	10km	1940	1961
Apamea remissa	Dusky Brocade	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	3	10km	1940	1961
Apamea sublustris	Reddish Light Arches	Local Spp of Cons Conc	2	10km	1940	1952
Aplota palpella	Scarce Brown Streak	NERC Act Section 41 BAP Priority National	1	10km	1855	1855
Apoda limacodes	Festoon	Local Spp of Cons Conc	1	10km	1940	1940
Aporophyla lutulenta	Deep-brown Dart	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1	10km	1940	1940
Arctia caja	Garden Tiger	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	6	10km	1940	1978
Arenostola phragmitidis	Fen Wainscot	Local Spp of Cons Conc	1	10km	02/07/1905	02/07/1905
Asteroscopus sphinx	Sprawler	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1	1km	1940	1940
Atethmia centrago	Centre-barred Sallow	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	2	10km	1940	1952

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Brachylomia viminalis	Minor Shoulder-knot	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1	10km	1940	1940
Callistege mi	Mother Shipton	Local Spp of Cons Conc	2	10km	1940	30/05/2004
Caradrina morpheus	Mottled Rustic	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	4	10km	1918	1961
Catarhoe cuculata	Royal Mantle	Local Spp of Cons Conc	1	10km	1940	1940
Celaena leucostigma	Crescent	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1	10km	1940	1940
Chesias legatella	Streak	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1	10km	1940	1940
Chiasmia clathrata	Latticed Heath	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	4	10km	1918	1961
Cosmia diffinis	White-spotted Pinion	NERC Act Section 41 BAP Priority National	3	10km	1940	1977
Cossus cossus	Goat Moth	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	2	10km	1940	31/12/1940
Cucullia absinthii	Wormwood	Local Spp of Cons Conc	1	10km	1940	1940
Cymatophorima diluta	Oak Lutestring	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	2	10km	1940	1952
Diarsia rubi	Small Square-spot	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	5	10km	1930	1978
Dichonia aprilina	Merveille Du Jour	Local Spp of Cons Conc	1	10km	1940	1940
Dicycla oo	Heart Moth	NERC Act Section 41 BAP Priority National	2	10km	1952	1961
Diloba caeruleocephala	Figure of Eight	NERC Act Section 41 BAP Priority National BAP Priority London	1	10km	1940	1940
Earias clorana	Cream-bordered Green Pea	Local Spp of Cons Conc	1	10km	1940	1940
Ecliptopera silaceata	Small Phoenix	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	4	10km	1918	1961
Elegia similella	White-barred Knot-horn	Nationally Notable B	1	10km	1957	1957
Ennomos erosaria	September Thorn	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	2	1km, 10km	1940	1952

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
Ennomos fuscantaria	Dusky Thorn	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	5	10km	1940	1978
Ennomos quercinaria	August Thorn	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	2	10km	1940	1961
Eudonia delunella	Pied Grey	Nationally Notable B	1	10km	1957	1957
Eulithis mellinata	Spinach	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	4	1km, 10km	1940	07/07/2013
Euphyia biangulata	Cloaked Carpet	Local Spp of Cons Conc	1	10km	1940	1940
Eupithecia plumbeolata	Lead-coloured Pug	Local Spp of Cons Conc	1	10km	1940	1940
Eupithecia pygmaeata	Marsh Pug	Local Spp of Cons Conc	1	10km	1940	1940
Eupithecia subumbrata	Shaded Pug	Local Spp of Cons Conc	1	10km	1940	1940
Euxoa nigricans	Garden Dart	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	5	10km	1940	1978
Euxoa tritici	White-line Dart	NERC Act Section 41 BAP Priority National	1	10km	1940	1940
Gastropacha quercifolia	Lappet	Local Spp of Cons Conc	1	10km	1940	1940
Graphiphora augur	Double Dart	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	7	1km, 10km	1918	1977
Heliophobus reticulata	Bordered Gothic	NERC Act Section 41 BAP Priority National	1	10km	1952	1952
Hemaris tityus	Narrow-bordered Bee Hawk-moth	NERC Act Section 41 BAP Priority National	1	10km	1940	1940
Hemistola chrysoprasaria	Small Emerald	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	2	10km	1940	1952
Hepialus humuli	Ghost Moth	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	6	10km	1918	1969
Hoplodrina blanda	Rustic	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	5	10km	1918	1961
Hydraecia micacea	Rosy Rustic	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	6	10km	1930	1978
Hypena rostralis	Buttoned Snout	Local Spp of Cons Conc	1	10km	1940	1940
Hypomecis roboraria	Great Oak Beauty	Local Spp of Cons Conc	3	1km, 10km	1930	1940
Lacanobia suasa	Dog's Tooth	Local Spp of Cons Conc	1	10km	1952	1952
Lampropteryx suffumata	Water Carpet	Local Spp of Cons Conc	1	10km	1940	1940

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Lycia hirtaria	Brindled Beauty	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	5	1km, 10km	1930	1977
Macaria wauaria	V-moth	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	2	10km	1940	1952
Macrothylacia rubi	Fox Moth	Local Spp of Cons Conc	1	10km	31/12/1940	31/12/1940
Malacosoma neustria	Lackey	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	4	10km	1918	1978
Melanchra persicariae	Dot Moth	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	6	10km	1918	1978
Melanchra pisi	Broom Moth	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	5	10km	1918	1961
Melanthia procellata	Pretty Chalk Carpet	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1	10km	1940	1940
Mesoligia literosa	Rosy Minor	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	1	10km	1940	1940
Mythimna comma	Shoulder-striped Wainscot	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	3	10km	1940	1961
Odezia atrata	Chimney Sweep	Local Spp of Cons Conc	1	10km	31/12/1940	31/12/1940
Orthosia gracilis	Powdered Quaker	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	4	10km	1940	1961
Orthosia miniosa	Blossom Underwing	Local Spp of Cons Conc	3	10km	1940	1961
Orthosia opima	Northern Drab	Local Spp of Cons Conc	3	10km	1940	1961
Orthosia populeti	Lead-coloured Drab	Local Spp of Cons Conc	3	10km	1940	1977
Pachycnemia hippocastanaria	Horse Chestnut	Local Spp of Cons Conc	1	10km	1940	1940
Parascotia fuliginaria	Waved Black	Local Spp of Cons Conc	1	10km	1940	1940
Pechipogo strigilata	Common Fan-foot	NERC Act Section 41 BAP Priority National	1	10km	1940	1940
Pediasia contaminella	Waste Grass-veneer	Nationally Notable B	1	10km	1957	1957
Pelurga comitata	Dark Spinach	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	4	1km, 10km	1940	1978
Peridea anceps	Great Prominent	Local Spp of Cons Conc	1	10km	1940	1940
Perizoma albulata	Grass Rivulet	BAP Priority London Local Spp of Cons Conc	1	10km	1940	1940

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
Pexicopia malvella	Hollyhock Seed Moth	Nationally Notable B	1	10km	1959	1959
Phytometra viridaria	Small Purple-barred	Local Spp of Cons Conc	1	1km	1940	1940
Plagodis pulveraria	Barred Umber	Local Spp of Cons Conc	1	10km	1940	1940
Polia bombycina	Pale Shining Brown	NERC Act Section 41 BAP Priority National Local Spp of Cons Conc	1	10km	1940	1940
Recurvaria nanella	Brindled Groundling	Nationally Notable B	1	10km	1959	1959
Rheumaptera hastata	Argent & Sable	NERC Act Section 41 BAP Priority National	1	1km	1940	1940
Rheumaptera undulata	Scallop Shell	Local Spp of Cons Conc	1	10km	1940	1940
Rhizedra lutosa	Large Wainscot	NERC Act Section 41 BAP Priority National	2	10km	1940	1961
Scopula immutata	Lesser Cream Wave	Local Spp of Cons Conc	2	10km	1930	1940
Scotopteryx chenopodiata	Shaded Broad-bar	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	2	10km	1918	1940
Scotopteryx luridata	July Belle	Local Spp of Cons Conc	1	10km	1961	1961
Sesia bembeciformis	Lunar Hornet Moth	Local Spp of Cons Conc	1	10km	1940	1940
Sphinx ligustri	Privet Hawk-moth	Local Spp of Cons Conc	1	10km	1940	1940
Spilosoma lubricipeda	White Ermine	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	10	1km, 10km	1918	1977
Spilosoma luteum	Buff Ermine	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	7	10km	1930	1978
Synanthedon myopaeformis	Red-belted Clearwing	Local Spp of Cons Conc	1	10km	1940	1940
Synanthedon tipuliformis	Currant Clearwing	Local Spp of Cons Conc	1	10km	1940	1940
Tethea or	Poplar Lutestring	Local Spp of Cons Conc	1	10km	1940	1940
Tholera cespitis	Hedge Rustic	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	3	10km	1940	1961
Tholera decimalis	Feathered Gothic	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	5	10km	1930	1961
Thumatha senex	Round-winged Muslin	Local Spp of Cons Conc	2	10km	1918	1940
Timandra comae	Blood-Vein	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	8	10km	1939	1978
Triphosa dubitata	Tissue	Local Spp of Cons Conc	2	10km	1940	1952
Tyria jacobaeae	Cinnabar	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	5	10km	1934	08/06/2004
Tyta luctuosa	Four-spotted	NERC Act Section 41 BAP Priority National Local Spp of Cons Conc	2	10km	1940	1952

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
Watsonalla binaria	Oak Hook-tip	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	4	10km	1940	1978
Watsonalla cultraria	Barred Hook-tip	Local Spp of Cons Conc	1	10km	1940	1940
Xanthia gilvago	Dusky-lemon Sallow	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	2	10km	1940	1961
Xanthia icteritia	Sallow	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	8	1km, 10km	1918	30/03/2012
Xanthorhoe biriviata	Balsam Carpet	BAP Priority London Local Spp of Cons Conc	1	10km	1940	1940
Xanthorhoe ferrugata	Dark-barred Twin-spot Carpet	NERC Act Section 41 BAP Priority National BAP Priority London Local Spp of Cons Conc	6	10km	1918	1961
Xestia castanea	Neglected Rustic	NERC Act Section 41 BAP Priority National	1	10km	1940	1940
Xestia ditrapezium	Triple-spotted Clay	Local Spp of Cons Conc	1	10km	1940	1940

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
Reptiles					
Vipera berus	Adder	NERC Act Section 41 BAP Priority National W&CA Sch5 Sec 9.1k/i BAP Priority London Local Spp of Cons Conc	17	1997-2005	03/05/2010
Birds					
Charadrius dubius	Little Ringed Plover	W&CA Sch1 Part 1 Local Spp of Cons Conc	15	27/04/1994	31/05/2009
Coccothraustes coccothraustes	Hawfinch	NERC Act Section 41 BAP Priority National Bird-Red BAP Priority London Local Spp of Cons Conc	4	10/01/1982	13/07/1985
Falco peregrinus	Peregrine	Birds Dir Anx 1 W&CA Sch1 Part 1 BAP Priority London Local Spp of Cons Conc	2	11/03/2007	11/03/2007
Falco subbuteo	Hobby	W&CA Sch1 Part 1 Local Spp of Cons Conc	2	16/07/1983	18/10/2004

Taxon Name	Common Name	Designation	Total number of occurrences	Date of oldest record	Date of most recent record
Milvus milvus	Red Kite	Birds Dir Anx 1 W&CA Sch1 Part 1	2	24/07/2004	28/04/2005
Poecile montana	Willow Tit	Bird-Red	2	27/04/1986	1987
Mammals (Bats)					
Myotis daubentonii	Daubenton's Bat	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London Local Spp of Cons Conc	10	13/01/1997	15/02/2002
Myotis nattereri	Natterer's Bat	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London Local Spp of Cons Conc	5	24/01/1999	04/01/2002
Pipistrellus	Pipistrelle Bat species	Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London	2	18/07/1996	21/08/2007
Pipistrellus pipistrellus	Common Pipistrelle	Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London	1	21/08/2007	21/08/2007
Plecotus auritus	Brown Long-eared Bat	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 NERC Act Section 41 BAP Priority National W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c BAP Priority London Local Spp of Cons Conc	7	24/01/1998	15/02/2002

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									
Psittacula krameri	Ring-necked Parakeet	LISI category 4	2	2	TQ105925	22/01/2008	TQ105925	22/01/2008	01/01/2005-22/01/2008
Mammals (Excl. Bats)									
Muntiacus reevesi	Chinese Muntjac	LISI category 4	1	P	TQ0998988819	18/10/2004	TQ0998988819	18/10/2004	18/10/2004
Higher Plants (Flowering Plants)									
Ailanthus altissima	Tree-of-heaven	LISI category 3	2	P	TQ0899889900	20/05/2004	TQ0899889900	20/05/2004	05/05/2004-20/05/2004
Buddleja davidii	Butterfly-bush	LISI category 3	16	P	TQ1052189529	25/05/2004	TQ1071390012	05/10/2006	22/06/1999-05/10/2006
Cotoneaster	Cotoneaster	LISI category 2	5	P	TQ0947091591	18/10/2004	TQ0969990260	19/10/2004	06/05/2004-19/10/2004
Cotoneaster salicifolius	Willow-leaved Cotoneaster	LISI category 2	1	P	TQ092913	1995	TQ092913	1995	01/01/1995-31/12/1995
Crassula helmsii	New Zealand Pigmyweed	LISI category 3	3	P	TQ0885989507	11/06/2004	TQ0998988819	19/10/2004	01/01/2001-19/10/2004
Elodea canadensis	Canadian Waterweed	LISI category 4	4	P	TQ0998988819	19/10/2004	TQ0998988819	19/10/2004	01/01/2000-19/10/2004
Fallopia japonica	Japanese Knotweed	LISI category 3	9	P	TQ0947091591	18/10/2004	TQ119902	28/05/2008-15/06/2008	22/06/1999-15/06/2008
Fallopia sachalinensis	Giant Knotweed	LISI category 5	1	P	TQ0940891081	04/10/2006	TQ0940891081	04/10/2006	04/10/2006
Galega officinalis	Goat's-rue	LISI category 4	5	P	TQ0885989507	11/06/2004	TQ110890	2014	24/05/2004-31/12/2014
Heracleum mantegazzianum	Giant Hogweed	LISI category 3	2	P	TQ1097688991	24/05/2004	TQ119902	28/05/2008-15/06/2008	24/05/2004-15/06/2008
Hyacinthoides hispanica	Spanish Bluebell	LISI category 4	4	P	TQ1052189529	25/05/2004	TQ1052189529	25/05/2004	26/04/2004-25/05/2004
Ilex aquifolium x perado = I. x altaclerensis	Highclere Holly	LISI category 5	1	P	TQ1132091395	11/09/2003	TQ1132091395	11/09/2003	11/09/2003
Impatiens glandulifera	Indian Balsam	LISI category 3	5	P	TQ0886990802	18/10/2004	TQ0886990802	18/10/2004	20/05/2004-18/10/2004
Lamium galeobdolon subsp. argentatum	Yellow Archangel	LISI category 4	2	P	TQ0976788817	06/05/2004	TQ0976788817	06/05/2004	05/05/2004-06/05/2004
Myriophyllum aquaticum	Parrot's-feather	LISI category 3	1	P	TQ102888	2001-2002	TQ102888	2001-2002	01/01/2001-31/12/2002
Pentaglottis sempervirens	Green Alkanet	LISI category 6	1	P	TQ0821490036	05/05/2004	TQ0821490036	05/05/2004	05/05/2004
Prunus laurocerasus	Cherry Laurel	LISI category 3	19	P	TQ0947091591	18/10/2004	TQ11529058	25/09/2009	22/06/1999-25/09/2009

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
Quercus cerris	Turkey Oak	LISI category 5	6	P	TQ1143790319	04/08/2003	TQ0969990260	19/10/2004	22/06/1999-19/10/2004
Rhododendron ponticum	Rhododendron	LISI category 2	2	P	TQ1043891666	02/08/2004	TQ0886990802	18/10/2004	02/08/2004-18/10/2004
Robinia pseudoacacia	False-acacia	LISI category 4	5	P	TQ0886990802	18/10/2004	TQ1026390248	26/07/2005	12/10/2004-26/07/2005
Symphoricarpos albus	Snowberry	LISI category 2	15	2	TQ092914	1994	TQ11529058	25/09/2009	01/01/1994-25/09/2009

LISI species – Coarse Resolution Records

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

Taxon Name	Common Name	Designation	Total number of occurrences	Record accuracy	Date of oldest record	Date of most recent record
Birds						
Psittacula krameri	Ring-necked Parakeet	LISI category 4	1	1km	17/10/2010	17/10/2010
Higher Plants (Flowering Plants)						
Allium paradoxum	Few-flowered Garlic	LISI category 2	1	1km	23/03/2003	23/03/2003
Allium triquetrum	Three-cornered Garlic	LISI category 4	1	1km	23/03/2003	23/03/2003
Ambrosia artemisiifolia	Ragweed	LISI category 5	2	1km	1945	2003
Buddleja davidii	Butterfly-bush	LISI category 3	7	1km, 10km	1965-1976	04/07/1998
Claytonia sibirica	Pink Purslane	LISI category 5	1	1km	2001	2001
Cotoneaster horizontalis	Wall Cotoneaster	LISI category 2	1	10km	2001	2001
Cotoneaster simonsii	Himalayan Cotoneaster	LISI category 2	1	10km	1997	1997
Crassula helmsii	New Zealand Pigmyweed	LISI category 3	3	1km, 2km	31/12/1993	2001
Elodea canadensis	Canadian Waterweed	LISI category 4	3	1km, 10km	1965-1976	1995
Fallopia japonica	Japanese Knotweed	LISI category 3	7	1km, 10km	1965-1976	1995
Fallopia sachalinensis	Giant Knotweed	LISI category 5	2	1km	31/12/1994	24/05/2003
Galega officinalis	Goat's-rue	LISI category 4	6	1km, 2km, 10km	31/12/1976	10/06/2001
Galinsoga parviflora	Gallant Soldier	LISI category 3	2	1km, 2km	1965-1976	1965-1976
Galinsoga quadriradiata	Shaggy Soldier	LISI category 3	1	1km	2001	2001
Hyacinthoides hispanica	Spanish Bluebell	LISI category 4	2	1km	1965-1976	1965-1976
Hyacinthoides non-scripta x hispanica = H. x massartiana	Bluebell	LISI category 4	1	1km	2003	2003
Impatiens capensis	Orange Balsam	LISI category 2	3	1km, 10km	31/12/1945	1994
Impatiens glandulifera	Indian Balsam	LISI category 3	2	1km, 10km	1965-1976	1995
Impatiens parviflora	Small Balsam	LISI category 2	7	1km, 10km	31/12/1945	24/05/2003
Lamium galeobdolon subsp. argentatum	Yellow Archangel	LISI category 4	1	10km	1994	1994
Lemna minuta	Least Duckweed	LISI category 4	3	1km, 10km	1991	2000
Lysichiton americanus	American Skunk-cabbage	LISI category 2	4	1km, 10km	1950	28/05/2002
Pentaglottis sempervirens	Green Alkanet	LISI category 6	1	1km	1947	1947
Prunus laurocerasus	Cherry Laurel	LISI category 3	4	1km, 10km	1995	23/03/2003
Quercus cerris	Turkey Oak	LISI category 5	3	1km, 10km	31/12/1976	1995
Rhododendron ponticum	Rhododendron	LISI category 2	2	1km, 10km	1965-1976	1995
Robinia pseudoacacia	False-acacia	LISI category 4	4	1km, 10km	31/12/1976	1995
Sorghum halepense	Johnson-grass	LISI category 2	1	1km	1947	1947
Symphoricarpos albus	Snowberry	LISI category 2	6	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
The Gravel Pits B1120	GiGL_HAB_11831	TQ0838891349	5.57	13/08/2004	Non- native broadleaved woodland	40	2.22	Lon(P1)
					Native broadleaved woodland	40	2.22	
					Neutral grassland (semi-improved)	5	0.28	
					Scrub	5	0.28	
					Ruderal or ephemeral	5	0.28	
					Amenity grassland	5	0.28	
The Gravel Pits B1120, Copse Wood Spinney	GiGL_HAB_11832	TQ0840491190	0.40	12/10/2004	Native broadleaved woodland	80	0.32	Lon(P1)
					Scrub	10	0.04	
					Non- native broadleaved woodland	10	0.04	
Northwood Golf Course, Greens	GiGL_HAB_11833	TQ0886990802	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	TQ0925390679	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	

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
Coniston Gardens open space	GiGL_HAB_11866	TQ1013089099	1.23	03/08/2004	Amenity grassland	98	1.2	Lon(P1)
					Scattered trees	2	0.02	
Haste Hill Golf Course, Golf Course	GiGL_HAB_11867	TQ0921790140	33.11	11/10/2004	Amenity grassland	50	16.5	Lon(P1)
					Scattered trees	30	9.9	
					Scrub	5	1.65	
					Bare soil and rock	5	1.65	
					Acid grassland	5	1.65	
					Planted shrubbery	3	0.99	
					Running water (rivers and streams)	2	0.66	
Haste Hill Golf Course, East copse	GiGL_HAB_11868	TQ0952090350	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	
Haste Hill Golf Course, SE Copse	GiGL_HAB_11869	TQ0962189950	3.05	06/10/2004	Scrub	30	0.91	Lon(P1)
					Scattered trees	25	0.76	
					Non- native broadleaved woodland	25	0.76	
					Neutral grassland (herb-rich)	18	0.55	
					Wet marginal vegetation	2	0.06	
Wiltshire Meadows, Wiltshire Meadows North	GiGL_HAB_11870	TQ0959589469	0.65	04/08/2004	Neutral grassland (herb-rich)	80	0.52	Lon(P1)
					Scrub	8	0.05	
					tall herbs	7	0.05	
					Scattered trees	4	0.03	
					Bare soil and rock	1	0.01	
Wiltshire Meadows, Wiltshire Meadows - South	GiGL_HAB_11871	TQ0968689363	5.77	04/08/2004	Neutral grassland (semi-improved)	94	5.41	Lon(P1)
					Native hedge	4	0.23	
					Scattered trees	2	0.12	
Haydon Hall Meadows, North pasture - small holding	GiGL_HAB_11872	TQ1046189978	0.99	03/08/2004	Neutral grassland (herb-rich)	80	0.79	Lon(P1)
					Scrub	10	0.1	
					Scattered trees	5	0.05	
					Native hedge	5	0.05	

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
Haydon Hall Meadows, Grazing field	GiGL_HAB_11873	TQ1035389762	5.12	03/08/2004	Neutral grassland (semi-improved) Roughland (intimate mix of 9, 14 and 6) Native hedge	90 5 5	4.59 0.26 0.26	Lon(P1)
Haydon Hall Meadows, R.Pinn corridor	GiGL_HAB_11874	TQ1052189529	2.00	25/05/2004	Non- native broadleaved woodland Native broadleaved woodland Running water (rivers and streams) Scrub Bare soil and rock	30 30 20 15 5	0.6 0.6 0.4 0.3 0.1	Lon(P1)
Haydon Hall Meadows, Long Meadow	GiGL_HAB_11875	TQ1057789613	4.76	03/08/2004	Neutral grassland (semi-improved) Native hedge Bare soil and rock Scattered trees	90 5 3 2	4.27 0.24 0.14 0.09	Lon(P1)
Haydon Hall Meadows, Wrenwood Meadow - North	GiGL_HAB_11876	TQ1069589345	2.37	04/08/2004	Neutral grassland (herb-rich) Scrub Neutral grassland (semi-improved) Scattered trees	70 15 10 5	1.65 0.35 0.24 0.12	Lon(P1)
Haydon Hall Meadows, Wrenwood Meadow - West	GiGL_HAB_11877	TQ1072489185	3.10	04/08/2004	Neutral grassland (herb-rich) Native hedge Scrub Scattered trees	80 10 5 5	2.47 0.31 0.15 0.15	Lon(P1)
Haydon Hall Meadows, Brush to SW	GiGL_HAB_11878	TQ1054889133	0.60	03/08/2004	Scrub Scattered trees	50 50	0.3 0.3	Lon(P1)
Haydon Hall Meadows, Wrenwood Meadows - East	GiGL_HAB_11879	TQ1073789256	0.70	04/08/2004	Neutral grassland (semi-improved) Native hedge Scattered trees Scrub	90 5 3 2	0.63 0.04 0.02 0.01	Lon(P1)
Haydon Hall Meadows, Footpath and greenspace to West	GiGL_HAB_11880	TQ1051589916	1.40	03/08/2004	Native broadleaved woodland Amenity grassland Scrub Non- native broadleaved woodland Scattered trees Running water (rivers and streams)	50 20 15 10 4 1	0.7 0.28 0.21 0.14 0.06 0.01	Lon(P1)

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
River Pinn near Eastcote, Long Meadow open space	GiGL_HAB_11881	TQ1097688991	5.80	24/05/2004	Amenity grassland Running water (rivers and streams) Non- native broadleaved woodland Native broadleaved woodland Scrub	65 10 10 10 5	3.76 0.58 0.58 0.58 0.29	Lon(P1)
River Pinn near Eastcote, Cheney Street open space	GiGL_HAB_11882	TQ1137389046	2.31	04/05/2004	Neutral grassland (semi-improved) Native broadleaved woodland Running water (rivers and streams) Non- native broadleaved woodland	60 20 10 10	1.38 0.46 0.23 0.23	Lon(P1)
Hogs Back open space, Woodlands circumference	GiGL_HAB_11887	TQ1024290919	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	TQ1033390847	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	TQ1047091289	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	TQ1062091384	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	TQ1064891139	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)

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
St Johns School, Main building complex and grassland to South	GiGL_HAB_11892	TQ1050791492	2.78	02/08/2004	Amenity grassland	48	1.33	Lon(P1)
					Bare artificial habitat	40	1.11	
					Scattered trees	5	0.14	
					Native hedge	3	0.08	
					Non-native hedge	2	0.06	
					Bare soil and rock	2	0.06	
St Johns School, Nature Trail	GiGL_HAB_11893	TQ1043891666	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	TQ1052591661	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	TQ1059191503	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	
Raisins Hill Common	GiGL_HAB_11896	TQ1112689642	1.15	05/05/2004	Amenity grassland	75	0.85	Lon(P1)
					Scattered trees	15	0.17	
					Scrub	10	0.11	
Cuckoo Hill	GiGL_HAB_11897	TQ1104389388	2.37	25/05/2004	Amenity grassland	65	1.53	Lon(P1)
					Scattered trees	20	0.47	
					Native hedge	10	0.24	
					Scrub	5	0.12	
Ruislip Woods, Park Wood	GiGL_HAB_11929	TQ0918389102	107.27	26/04/2004	Native broadleaved woodland	78	83.41	Lon(P1)
					tall herbs	5	5.35	
					Scrub	5	5.35	
					Neutral grassland (herb-rich)	5	5.35	
					Bare soil and rock	3	3.21	
					Ditches (water filled)	2	2.14	
					Acid grassland	2	2.14	

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
Ruislip Woods, Grub Ground Pond	GiGL_HAB_11930	TQ0967088872	0.06	13/08/2004	Wet marginal vegetation	40	0.02	Lon(P1)
					Native broadleaved woodland	30	0.02	
					Scrub	20	0.01	
					Standing water (includes canals)	10	0.01	
Ruislip Woods, Ruislip Lido	GiGL_HAB_11931	TQ0883989357	15.44	11/06/2004	Standing water (includes canals)	95	14.62	Lon(P1)
					Scrub	2	0.31	
					Wet marginal vegetation	1	0.15	
					Typha etc. swamp	1	0.15	
					Reedswamp	1	0.15	
Ruislip Woods, Lake	GiGL_HAB_11932	TQ0899889900	0.37	20/05/2004	Standing water (includes canals)	80	0.3	Lon(P1)
					Wet marginal vegetation	10	0.04	
					tall herbs	5	0.02	
					Scattered trees	5	0.02	
Ruislip Woods, Locked Nature Reserve Woodland	GiGL_HAB_11933	TQ0896889982	4.03	20/05/2004	Native broadleaved woodland	50	2.01	Lon(P1)
					Non- native broadleaved woodland	15	0.6	
					Standing water (includes canals)	10	0.4	
					Fen carr (woodland or scrub over fen)	10	0.4	
						6	0.24	
					Neutral grassland (herb-rich)	5	0.2	
					Wet marginal vegetation	2	0.08	
					Typha etc. swamp	2	0.08	
					Ditches (water filled)			
Ruislip Woods, The Finger	GiGL_HAB_11934	TQ0883590185	1.03	11/06/2004	Native broadleaved woodland	50	0.52	Lon(P1)
					Typha etc. swamp	30	0.31	
					tall herbs	20	0.21	
Ruislip Woods, Poors Field	GiGL_HAB_11935	TQ0875389763	16.49	11/06/2004	Acid grassland	47	7.73	Lon(P1)
					tall herbs	15	2.47	
					Scrub	15	2.47	
					Scattered trees	10	1.64	
					Heathland	10	1.64	
					Bare soil and rock	3	0.49	

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
Ruislip Woods, Copse Wood	GiGL_HAB_11936	TQ0821490036	79.96	05/05/2004	Native broadleaved woodland Non- native broadleaved woodland tall herbs Scrub Neutral grassland (herb-rich) Bare soil and rock	50 20 10 10 5 5	39.85 15.94 7.97 7.97 3.99 3.99	Lon(P1)
Ruislip Woods, Amenity Grassland west of Lido	GiGL_HAB_11937	TQ0870689375	7.08	11/06/2004	Amenity grassland Neutral grassland (herb-rich) Scattered trees Scrub	40 30 20 10	2.82 2.12 1.41 0.71	Lon(P1)
Ruislip Wood, Lido Roughland	GiGL_HAB_11938	TQ0885989507	1.00	11/06/2004	Roughland (intimate mix of 9, 14 and 6) Scattered trees	95 5	0 0	Lon(P1)
Ruislip Woods, Aspen Wood	GiGL_HAB_11939	TQ0889289583	1.11	21/08/2004	Native broadleaved woodland Scrub tall herbs	85 10 5	0.94 0.11 0.06	Lon(P1)
Ruislip Woods, Scrubland near car park	GiGL_HAB_11940	TQ0853289389	1.17	21/06/2004	Native broadleaved woodland Acid grassland Recently felled woodland Bare soil and rock tall herbs	40 30 15 10 5	0.47 0.35 0.18 0.12 0.06	Lon(P1)
Ruislip Woods, Grub Ground	GiGL_HAB_11941	TQ0976788817	10.66	06/05/2004	Acid grassland Native broadleaved woodland tall herbs Scrub Non- native broadleaved woodland Coniferous woodland	35 30 14 10 10 1	3.72 3.19 1.49 1.06 1.06 0.11	Lon(P1)
Ruislip and Northolt Co-op Allotmentholders	GiGL_HAB_12049	TQ1032990028	2.32	08/08/2004	Allotments (active) Roughland (intimate mix of 9, 14 and 6) Bare artificial habitat Scattered trees Bare soil and rock	80 10 5 3 2	1.85 0.23 0.12 0.07 0.05	Lon(P1)

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
Haste Hill Farm	GiGL_HAB_12050	TQ0980289456	0.83	04/08/2004	Scrub Scattered trees	60 40	0.5 0.33	Lon(P1)
St. Vincent's Hospital, Heatherfold Way Field	GiGL_HAB_12051	TQ0967189724	1.08	04/08/2004	Neutral grassland (semi-improved) Roughland (intimate mix of 9, 14 and 6) Scrub Scattered trees	45 40 10 5	0.49 0.43 0.11 0.05	Lon(P1)
St. Vincent's Hospital, North Grounds	GiGL_HAB_12052	TQ0962189813	0.54	04/08/2004	Scrub Scattered trees Ruderal or ephemeral Amenity grassland	30 30 25 15	0.16 0.16 0.13 0.08	Lon(P1)
St. Martin's School	GiGL_HAB_12055	TQ0860592106	1.96	13/08/2004	Amenity grassland Bare soil and rock Native hedge Scattered trees Non-native hedge	83 10 4 2 1	1.62 0.2 0.08 0.04 0.02	Lon(P1)
Northwood FC	GiGL_HAB_12080	TQ0983790325	1.71	06/10/2004	Amenity grassland Bare artificial habitat Scattered trees Roughland (intimate mix of 9, 14 and 6)	55 25 10 10	0.94 0.43 0.17 0.17	Lon(P1)
Fore Street Meadow	GiGL_HAB_12093	TQ0995889116	2.83	13/10/2004	Ruderal or ephemeral Neutral grassland (semi-improved) Roughland (intimate mix of 9, 14 and 6) Scattered trees Native hedge Wet marginal vegetation Bare artificial habitat	32 30 25 5 5 2 1	0.9 0.85 0.71 0.14 0.14 0.06 0.03	Lon(P1)
Frithwood School	GiGL_HAB_12095	TQ0968591749	0.70	13/08/2004	Amenity grassland Bare artificial habitat Scattered trees Ruderal or ephemeral	70 18 10 2	0.49 0.13 0.07 0.01	Lon(P1)

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
Old Pumping Station Fields, Old Pumping Station Field - north	GiGL_HAB_12233	TQ0840789381	3.02	21/06/2004	Neutral grassland (herb-rich) Native hedge Scattered trees	85 10 5	2.56 0.3 0.15	Lon(P1)
Riverside Walk at Eastcote Road	GiGL_HAB_12296	TQ1045388560	1.39	25/04/2004	Scattered trees Running water (rivers and streams) Scrub tall herbs Bare artificial habitat	40 25 15 10 10	0.56 0.35 0.21 0.14 0.14	Lon(P1)
Eastcote House gardens	GiGL_HAB_12297	TQ1071888713	3.17	25/05/2004	Amenity grassland Scattered trees Bare artificial habitat	50 40 10	1.58 1.26 0.32	Lon(P1)
Haydon Hall Park, Eastcote Cricket Club	GiGL_HAB_12298	TQ1054789025	3.99	24/05/2004	Amenity grassland Scattered trees Neutral grassland (semi-improved) Scrub Native hedge Bare artificial habitat	70 10 5 5 5 5	2.79 0.4 0.2 0.2 0.2 0.2	Lon(P1)
Haydon Hall Park, Woodland arounr River Pinn	GiGL_HAB_12299	TQ1057888841	2.18	24/05/2004	Neutral grassland (semi-improved) Non- native broadleaved woodland Native broadleaved woodland Bare soil and rock Scrub Running water (rivers and streams) tall herbs	20 20 20 15 10 10 5	0.43 0.43 0.43 0.33 0.22 0.22 0.11	Lon(P1)
Northwood Cemetery	GiGL_HAB_12302	TQ0969990260	6.43	19/10/2004	Amenity grassland Scattered trees Vegetated walls, tombstones etc. Planted shrubbery Native hedge Bare soil and rock	35 30 20 5 5 5	2.24 1.92 1.28 0.32 0.32 0.32	Lon(P1)

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
Northwood Recreation Ground	GiGL_HAB_12303	TQ0973690550	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	
Northwood Recreation Ground, Northwood Recreation Ground amenity area	GiGL_HAB_12304	TQ0991090294	7.76	06/10/2004	Amenity grassland	87	6.73	Lon(P1)
					Scattered trees	4	0.31	
					Neutral grassland (semi-improved)	3	0.23	
					Ruderal or ephemeral	3	0.23	
					Native hedge	3	0.23	
St Helens School	GiGL_HAB_12305	TQ0947091591	7.42	18/10/2004	Amenity grassland	51	3.77	Lon(P1)
					Bare artificial habitat	30	2.22	
					Scattered trees	15	1.11	
					Non-native hedge	2	0.15	
					Native hedge	2	0.15	
Metropolital Line - Watford Branch	GiGL_HAB_12306	TQ1054190087	2.86	23/09/2004	Bare artificial habitat	70	2	Lon(P1)
					Scrub	10	0.28	
					Scattered trees	10	0.28	
					Bare soil and rock	10	0.28	
Metropolital Line - Watford Branch, Northwood Hills to Northwood Tube	GiGL_HAB_12307	TQ0952690864	5.23	23/09/2004	Bare artificial habitat	65	3.39	Lon(P1)
					Scattered trees	25	1.3	
					Scrub	5	0.26	
					Bare soil and rock	5	0.26	
Metropolital Line - Watford Branch, Northwood Tube to north Hillingdon boundary	GiGL_HAB_12308	TQ0917091768	3.27	23/09/2004	Bare artificial habitat	40	1.3	Lon(P1)
					Scattered trees	30	0.98	
					Scrub	20	0.65	
					Neutral grassland (semi-improved)	5	0.16	
					Bare soil and rock	5	0.16	
Harlyn Primary & Nursery School	GiGL_HAB_12316	TQ1074489828	1.87	04/08/2004	Amenity grassland	87	1.62	Lon(P1)
					Non-native hedge	4	0.07	
					Native hedge	4	0.07	
					Bare artificial habitat	3	0.06	
					Scattered trees	2	0.04	

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
Grangewood School and Coteford Junior School Grounds	GiGL_HAB_12317	TQ0998988819	5.09	18/10/2004	Native broadleaved woodland Amenity grassland Bare artificial habitat Scattered trees	40 35 20 5	2.03 1.78 1.02 0.25	Lon(P1)
Haydon School grounds	GiGL_HAB_12318	TQ1011989545	7.31	03/08/2004	Amenity grassland Bare artificial habitat Scrub Scattered trees	90 8 1 1	6.56 0.58 0.07 0.07	Lon(P1)
Northwood Comprehensive School & Sports Centre	GiGL_HAB_12319	TQ1048790551	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	TQ0956891789	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	TQ0970790438	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)
Pinnerwood Farm	GiGL_HAB_13703	TQ1192591800	47.42	05/09/2003	Improved or re-seeded agricultural grassland Native hedge Scattered trees	80 15 5	37.82 7.09 2.36	Lon(P1)
Pinner Hill Golf Course, Greens, Roughs and (dry) ditches	GiGL_HAB_13706	TQ1112391402	31.53	11/09/2003	Amenity grassland Acid grassland Other Scrub	70 15 10 5	22 4.71 3.14 1.57	Lon(P1)
Pinner Hill Golf Course, Pond	GiGL_HAB_13707	TQ1101991466	0.16	11/09/2003	Standing water (includes canals) Scrub Native broadleaved woodland Non- native broadleaved woodland	50 20 20 10	0.08 0.03 0.03 0.02	Lon(P1)

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
Pinner Hill Golf Course, Wide Ditch and Pond	GiGL_HAB_13708	TQ1105591618	0.80	11/09/2003	Wet marginal vegetation Standing water (includes canals) Typha etc. swamp Roughland (intimate mix of 9, 14 and 6) Ditches (water filled)	30 30 20 10 10	0.24 0.24 0.16 0.08 0.08	Lon(P1)
Pinner Hill Golf Course, Dispersed woodland and hedgerow features	GiGL_HAB_13709	TQ1132091395	18.81	11/09/2003	Native broadleaved woodland Non- native broadleaved woodland	80 20	15 3.75	Lon(P1)
Pinner Hill Golf Course, Pinnerhill Golf Club	GiGL_HAB_13710	TQ1152991191	0.63	11/09/2003	Typha etc. swamp Standing water (includes canals) Wet marginal vegetation Scrub Scattered trees Ditches (water filled)	40 20 10 10 10 10	0.25 0.13 0.06 0.06 0.06 0.06	Lon(P1)
Pinner Hill Golf Course, Pond with ditch to NE corner	GiGL_HAB_13711	TQ1136791868	0.32	11/09/2003	Typha etc. swamp Wet marginal vegetation Roughland (intimate mix of 9, 14 and 6)	80 10 10	0.26 0.03 0.03	Lon(P1)
Pinner Green, Montesoles Playing Fields	GiGL_HAB_13712	TQ1143790319	5.51	04/08/2003	Amenity grassland Scattered trees	80 20	4.39 1.1	Lon(P1)
Pinner Green, Course of stream and riparian habitats	GiGL_HAB_13713	TQ1131090319	0.50	04/08/2003	Ditches (water filled) Native hedge Non-native hedge Wet marginal vegetation	40 35 15 10	0.2 0.18 0.08 0.05	Lon(P1)
Pinner Green, Grim's Dyke	GiGL_HAB_13714	TQ1144090525	1.59	04/08/2003	Native broadleaved woodland Non- native broadleaved woodland	60 40	0.95 0.64	Lon(P1)
Pinner Green, Pinner Chalk Mine aka Dingles Chalk Mine	GiGL_HAB_13715	TQ1160690542	1.31	04/08/2003	Non- native broadleaved woodland Native broadleaved woodland Bare soil and rock Scrub	30 30 30 10	0.39 0.39 0.39 0.13	Lon(P1)
Pinner Green, Allotments	GiGL_HAB_13716	TQ1157790431	0.87	04/08/2003	Allotments (active) Neutral grassland (semi-improved)	85 15	0.73 0.13	Lon(P1)

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
Pinner Green, Rough grassland to N of allotments	GiGL_HAB_13717	TQ1151290502	0.72	04/08/2003	Ruderal or ephemeral Neutral grassland (herb-rich)	50 50	0.36 0.36	Lon(P1)
The Grail Centre, Formal Gardens	GiGL_HAB_13718	TQ1181690296	1.07	06/08/2003	Planted shrubbery Scattered trees Improved or re-seeded agricultural grassland Vegetated walls, tombstones etc.	30 30 30 10	0.32 0.32 0.32 0.11	Lon(P1)
The Grail Centre, Pond	GiGL_HAB_13719	TQ1180790231	0.08	06/08/2003	Other	100	0.08	Lon(P1)
The Grail Centre, Grassland to W of site	GiGL_HAB_13720	TQ1174490296	1.54	06/08/2003	Acid grassland Scattered trees Planted shrubbery Non- native broadleaved woodland Native broadleaved woodland Native hedge	40 20 10 10 10 10	0.61 0.31 0.15 0.15 0.15 0.15	Lon(P1)
The Grail Centre, Woodland to SW of site	GiGL_HAB_13721	TQ1172390195	0.69	06/08/2003	Native broadleaved woodland Scrub tall herbs Planted shrubbery Non- native broadleaved woodland	50 20 10 10 10	0.35 0.14 0.07 0.07 0.07	Lon(P1)
Rail side	GiGL_HAB_13734	TQ1215789509	3.47	12/09/2003	Native broadleaved woodland Non- native broadleaved woodland Scrub	60 30 10	2.08 1.04 0.35	Lon(P1)
Rail side	GiGL_HAB_13735	TQ1136889822	2.08	10/10/2003	Scattered trees Neutral grassland (semi-improved) Ruderal or ephemeral tall herbs	40 20 20 15	0.83 0.41 0.41 0.31	Lon(P1)
Missing Site Name, and parcel name	GiGL_HAB_13889	TQ1196790312	0.47	00/00/0000				Lon(P1)
Little Common, Pinner, S half of Park	GiGL_HAB_13895	TQ1186889904	0.87	06/08/2003	Amenity grassland (80%, 0.7ha) Scrub (10%, 0.09ha) Scattered trees (10%, 0.09ha)			Lon(P1)
Little Common, Pinner, Childrens Play Area and Oak Copse	GiGL_HAB_13896	TQ1185089995	0.45	06/08/2003	Scattered trees (50%, 0.23ha) Bare artificial habitat (50%, 0.23ha)			Lon(P1)

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Survey Date	Habitat Type	Area (%)	Area (ha)	Survey Type
Little Common, Pinner, Woodland/scrub clump to N of Park	GiGL_HAB_13897	TQ1183290047	0.24	06/08/2003	Scrub (50%, 0.12ha) Native broadleaved woodland (50%, 0.12ha)			Lon(P1)
Pinner Recreation Ground	GiGL_HAB_13898	TQ1157089712	1.25	18/09/2003	Amenity grassland (85%, 1.06ha) Scattered trees (5%, 0.06ha) Non-native hedge (5%, 0.06ha) Native hedge (5%, 0.06ha)			Lon(P1)
Meredith Close 'Private Green'	GiGL_HAB_13990	TQ1177391230	0.32	05/09/2003	Amenity grassland (80%, 0.26ha) Scattered trees (20%, 0.06ha)			Lon(P1)
Fenced triangle of grassland 294, Marsworth Gree	GiGL_HAB_13991	TQ1187390918	0.44	05/09/2003	Neutral grassland (semi-improved) (90%, 0.4ha) Scrub (5%, 0.02ha) Scattered trees (5%, 0.02ha)			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)
The Gravel Pits B1120	GiGL_HAB_11831	TQ0838891349	5.57	2004	Wood Unknown condition (management not known)	4.44	Create new/restore relict wood	5.56
The Gravel Pits B1120, Copse Wood Spinney	GiGL_HAB_11832	TQ0840491190	0.40	2004	Wood Unknown condition (management not known)	0.36	Create new/restore relict wood	0.40
Northwood Golf Course, Greens	GiGL_HAB_11833	TQ0886990802	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	TQ0925390679	4.82	2004	Wood Unknown condition (management not known)	0.96	Create new/restore relict wood	4.81
Coniston Gardens open space	GiGL_HAB_11866	TQ1013089099	1.23	2004			Create new/restore relict wood	1.22
Haste Hill Golf Course, Golf Course	GiGL_HAB_11867	TQ0921790140	33.11	2004	Species Rich Acid grass CAT B	1.65	Create new/restore relict pond Expand existing acid grass Create new/restore relict reed	31.36 1.65 0.66
Haste Hill Golf Course, East copse	GiGL_HAB_11868	TQ0952090350	2.61	2004	Wood Unknown condition (management not known) Meadow condition Poor	1.72 0.13	Create new/restore relict meadow	0.88
Haste Hill Golf Course, SE Copse	GiGL_HAB_11869	TQ0962189950	3.05	2004	Wood Unknown condition (management not known) Meadow condition Poor	0.76 0.55	Create new/restore relict meadow	3.04
Wiltshire Meadows, Wiltshire Meadows North	GiGL_HAB_11870	TQ0959589469	0.65	2004	Meadow condition Poor	0.52	Create new/restore relict meadow	0.65
Wiltshire Meadows, Wiltshire Meadows - South	GiGL_HAB_11871	TQ0968689363	5.77	2004			Create new/restore relict wood	5.75
Haydon Hall Meadows, North pasture - small holding	GiGL_HAB_11872	TQ1046189978	0.99	2004	Meadow condition Poor	0.79	Create new/restore relict meadow	0.99
Haydon Hall Meadows, Grazing field	GiGL_HAB_11873	TQ1035389762	5.12	2004			Create new/restore relict wood	5.10
Haydon Hall Meadows, R.Pinn corridor	GiGL_HAB_11874	TQ1052189529	2.00	2004	Wood Unknown condition (management not known)	1.20	Create new/restore relict reed	0.40
Haydon Hall Meadows, Long Meadow	GiGL_HAB_11875	TQ1057789613	4.76	2004			Create new/restore relict wood	4.74
Haydon Hall Meadows, Wrenwood Meadow - North	GiGL_HAB_11876	TQ1069589345	2.37	2004	Meadow condition Poor	1.65	Create new/restore relict meadow	2.36
Haydon Hall Meadows, Wrenwood Meadow - West	GiGL_HAB_11877	TQ1072489185	3.10	2004	Meadow condition Poor	2.47	Create new/restore relict meadow Create new/restore relict floodplain GM	3.09 0.62
Haydon Hall Meadows, Brush to SW	GiGL_HAB_11878	TQ1054889133	0.60	2004			Create new/restore relict wood	0.60
Haydon Hall Meadows, Wrenwood Meadows - East	GiGL_HAB_11879	TQ1073789256	0.70	2004			Create new/restore relict wood	0.70
Haydon Hall Meadows, Footpath and greenspace to West	GiGL_HAB_11880	TQ1051589916	1.40	2004	Wood Unknown condition (management not known)	0.84	Create new/restore relict wood	1.40
River Pinn near Eastcote, Long Meadow open space	GiGL_HAB_11881	TQ1097688991	5.80	2004	Wood Unknown condition (management not known)	1.16	Create new/restore relict floodplain GM Create new/restore relict reed	5.78 0.58
River Pinn near Eastcote, Cheney Street open space	GiGL_HAB_11882	TQ1137389046	2.31	2004	Wood Unknown condition (management not known)	0.69	Create new/restore relict wood	2.30
Hogs Back open space, Woodlands circumference	GiGL_HAB_11887	TQ1024290919	2.78	2004	Wood Unknown condition (management not known)	1.94	Create new/restore relict wood	2.77

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Created Date	Habitat Condition	Area (ha)	Habitat Suitability	Area (ha)
Hogs Back open space, Clearing at top	GiGL_HAB_11888	TQ1033390847	2.04	2004			Create new/restore relict wood	2.03
St Johns School, South Sports Field	GiGL_HAB_11889	TQ1047091289	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	TQ1062091384	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	TQ1064891139	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	TQ1050791492	2.78	2004			Create new/restore relict pond	2.77
St Johns School, Nature Trail	GiGL_HAB_11893	TQ1043891666	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	TQ1052591661	1.00	2004			Create new/restore relict pond	1.00
St Johns School, East ponds (#2)	GiGL_HAB_11895	TQ1059191503	0.12	2004	Pond condition Poor	0.08	Create new/restore relict pond	0.12
Raisins Hill Common	GiGL_HAB_11896	TQ1112689642	1.15	2004			Create new/restore relict wood	1.14
Cuckoo Hill	GiGL_HAB_11897	TQ1104389388	2.37	2004			Create new/restore relict wood	2.36
Ruislip Woods, Park Wood	GiGL_HAB_11929	TQ0918389102	107.27	2004	Wood Good condition (under active management) Meadow condition Poor Floodplain G M condition Poor Species Rich Acid grass CAT B	83.41 5.35 5.35 2.14	Create new/restore relict meadow Create new/restore relict floodplain GM Create new/restore relict pond Expand existing acid grass	99.45 99.45 94.1 2.14
Ruislip Woods, Grub Ground Pond	GiGL_HAB_11930	TQ0967088872	0.06	2004	Wood Unknown condition (management not known) Pond condition Poor	0.02 0.01	Create new/restore relict pond	0.06
Ruislip Woods, Ruislip Lido	GiGL_HAB_11931	TQ0883989357	15.44	2004	Reed condition Good	0.15	Expand existing reed	14.62
Ruislip Woods, Lake	GiGL_HAB_11932	TQ0899889900	0.37	2004	Pond condition Poor	0.30	Create new/restore relict pond Create new/restore relict reed	0.37 0.3
Ruislip Woods, Locked Nature Reserve Woodland	GiGL_HAB_11933	TQ0896889982	4.03	2004	Wood Unknown condition (management not known) Pond condition Poor Meadow condition Poor Floodplain G M condition Poor	3.01 0.4 0.24 0.24	Create new/restore relict pond Create new/restore relict meadow Create new/restore relict floodplain GM Create new/restore relict reed	3.54 3.38 3.38 0.4
Ruislip Woods, The Finger	GiGL_HAB_11934	TQ0883590185	1.03	2004	Wood Unknown condition (management not known)	0.52	Create new/restore relict pond	1.03
Ruislip Woods, Poors Field	GiGL_HAB_11935	TQ0875389763	16.49	2004	Species Rich Acid grass CAT B Species Rich Heath CAT B	7.73 1.64	Expand existing acid grass Create new/restore relict pond Maintain existing heath	7.73 7.07 1.64
Ruislip Woods, Copse Wood	GiGL_HAB_11936	TQ0821490036	79.96	2004	Wood Good condition (under active management) Meadow condition Poor	55.79 3.99	Create new/restore relict meadow	23.92
Ruislip Woods, Amenity Grassland west of Lido	GiGL_HAB_11937	TQ0870689375	7.08	2004	Meadow condition Poor	2.12	Create new/restore relict meadow Create new/restore relict pond	7.06 4.94
Ruislip Wood, Lido Roughland	GiGL_HAB_11938	TQ0885989507	1.00	2004			Create new/restore relict wood	0.99
Ruislip Woods, Aspen Wood	GiGL_HAB_11939	TQ0889289583	1.11	2004	Wood Unknown condition (management not known)	0.94	Create new/restore relict wood	1.11
Ruislip Woods, Scrubland near car park	GiGL_HAB_11940	TQ0853289389	1.17	2004	Wood Unknown condition (management not known) Species Rich Acid grass CAT A	0.47 0.35	Create new/restore relict pond Expand existing acid grass	0.82 0.35
Ruislip Woods, Grub Ground	GiGL_HAB_11941	TQ0976788817	10.66	2004	Wood Unknown condition (management not known) Species Rich Acid grass CAT B	4.36 3.72	Expand existing acid grass Create new/restore relict pond	3.72 2.55
Ruislip and Northolt Co-op Allotmentholders	GiGL_HAB_12049	TQ1032990028	2.32	2004			Create new/restore relict wood	2.31
Haste Hill Farm	GiGL_HAB_12050	TQ0980289456	0.83	2004			Create new/restore relict wood	0.83

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Created Date	Habitat Condition	Area (ha)	Habitat Suitability	Area (ha)
St. Vincent's Hospital, Heatherfold Way Field	GiGL_HAB_12051	TQ0967189724	1.08	2004			Create new/restore relict wood	1.08
St. Vincent's Hospital, North Grounds	GiGL_HAB_12052	TQ0962189813	0.54	2004			Create new/restore relict wood	0.53
St. Martin's School	GiGL_HAB_12055	TQ0860592106	1.96	2004			Create new/restore relict wood	1.95
Northwood FC	GiGL_HAB_12080	TQ0983790325	1.71	2004			Create new/restore relict wood	1.71
Fore Street Meadow	GiGL_HAB_12093	TQ0995889116	2.83	2004			Create new/restore relict wood	2.82
Frithwood School	GiGL_HAB_12095	TQ0968591749	0.70	2004			Create new/restore relict wood	0.70
Old Pumping Station Fields, Old Pumping Station Field - north	GiGL_HAB_12233	TQ0840789381	3.02	2004	Meadow condition Poor	2.56	Create new/restore relict meadow Create new/restore relict pond	3.01 0.45
Riverside Walk at Eastcote Road	GiGL_HAB_12296	TQ1045388560	1.39	2004			Create new/restore relict reed	0.35
Eastcote House gardens	GiGL_HAB_12297	TQ1071888713	3.17	2004			Create new/restore relict floodplain GM	3.16
Haydon Hall Park, Eastcote Cricket Club	GiGL_HAB_12298	TQ1054789025	3.99	2004			Create new/restore relict floodplain GM	3.98
Haydon Hall Park, Woodland arounr River Pinn	GiGL_HAB_12299	TQ1057888841	2.18	2004	Wood Unknown condition (management not known)	0.86	Create new/restore relict wood	2.17
Northwood Cemetery	GiGL_HAB_12302	TQ0969990260	6.43	2004			Create new/restore relict wood	6.41
Northwood Recreation Ground	GiGL_HAB_12303	TQ0973690550	1.91	2004			Create new/restore relict wood	1.90
Northwood Recreation Ground, Northwood Recreation Ground amenity area	GiGL_HAB_12304	TQ0991090294	7.76	2004			Create new/restore relict wood	7.74
St Helens School	GiGL_HAB_12305	TQ0947091591	7.42	2004			Create new/restore relict wood	7.40
Metropolital Line - Watford Branch	GiGL_HAB_12306	TQ1054190087	2.86	2004			Create new/restore relict wood	2.85
Metropolital Line - Watford Branch, Northwood Hills to Northwood Tube	GiGL_HAB_12307	TQ0952690864	5.23	2004			Create new/restore relict wood	5.22
Metropolital Line - Watford Branch, Northwood Tube to north Hillingdon boundary	GiGL_HAB_12308	TQ0917091768	3.27	2004			Create new/restore relict wood	3.26
Harlyn Primary & Nursery School	GiGL_HAB_12316	TQ1074489828	1.87	2004			Create new/restore relict wood	1.86
Grangewood School and Coteford Junior School Grounds	GiGL_HAB_12317	TQ0998988819	5.09	2004	Wood Unknown condition (management not known)	2.03	Create new/restore relict wood	5.08
Haydon School grounds	GiGL_HAB_12318	TQ1011989545	7.31	2004			Create new/restore relict wood	7.29
Northwood Comprehensive School & Sports Centre	GiGL_HAB_12319	TQ1048790551	5.99	2004			Create new/restore relict wood	5.97
Frithwood Park	GiGL_HAB_12320	TQ0956891789	1.07	2004			Create new/restore relict wood	1.07
Chestnut Avenue Allotments	GiGL_HAB_12363	TQ0970790438	0.93	2004			Create new/restore relict wood	0.93
Pinnerwood Farm	GiGL_HAB_13703	TQ1192591800	47.42	2003			Create new/restore relict wood	47.27
Pinner Hill Golf Course, Greens, Roughs and (dry) ditches	GiGL_HAB_13706	TQ1112391402	31.53	2003	Species Rich Acid grass CAT B	4.71	Create new/restore relict pond Expand existing acid grass	26.72 4.71
Pinner Hill Golf Course, Pond	GiGL_HAB_13707	TQ1101991466	0.16	2003	Pond condition Poor Wood Unknown condition (management not known)	0.08 0.05	Create new/restore relict pond	0.16
Pinner Hill Golf Course, Wide Ditch and Pond	GiGL_HAB_13708	TQ1105591618	0.80	2003	Pond condition Poor	0.24	Create new/restore relict pond	0.79
Pinner Hill Golf Course, Dispersed woodland and hedgerow features	GiGL_HAB_13709	TQ1132091395	18.81	2003	Wood Unknown condition (management not known)	18.75	Create new/restore relict pond	0.00
Pinner Hill Golf Course, Pinnerhill Golf Club	GiGL_HAB_13710	TQ1152991191	0.63	2003	Pond condition Average	0.13	Expand existing pond	0.50
Pinner Hill Golf Course, Pond with ditch to NE corner	GiGL_HAB_13711	TQ1136791868	0.32	2003				
Pinner Green, Montesoles Playing Fields	GiGL_HAB_13712	TQ1143790319	5.51	2003			Create new/restore relict wood	5.49
Pinner Green, Course of stream and riparian habitats	GiGL_HAB_13713	TQ1131090319	0.50	2003			Create new/restore relict wood	0.50
Pinner Green, Grim's Dyke	GiGL_HAB_13714	TQ1144090525	1.59	2003	Wood Unknown condition (management not known)	1.59	Create new/restore relict wood	1.59
Pinner Green, Pinner Chalk Mine aka Dingles Chalk Mine	GiGL_HAB_13715	TQ1160690542	1.31	2003	Wood Unknown condition (management not known)	0.78	Create new/restore relict wood	1.30
Pinner Green, Allotments	GiGL_HAB_13716	TQ1157790431	0.87	2003				
Pinner Green, Rough grassland to N of allotments	GiGL_HAB_13717	TQ1151290502	0.72	2003	Meadow condition Poor	0.36	Create new/restore relict meadow	0.72
The Grail Centre, Formal Gardens	GiGL_HAB_13718	TQ1181690296	1.07	2003			Create new/restore relict wood	1.07
The Grail Centre, Pond	GiGL_HAB_13719	TQ1180790231	0.08	2003				

Site Name	Polygon ID	Grid Ref	Site Area (ha)	Created Date	Habitat Condition	Area (ha)	Habitat Suitability	Area (ha)
The Grail Centre, Grassland to W of site	GiGL_HAB_13720	TQ1174490296	1.54	2003	Species Rich Acid grass CAT B Wood Unknown condition (management not known)	0.61 0.3	Expand existing acid grass	0.61
The Grail Centre, Woodland to SW of site	GiGL_HAB_13721	TQ1172390195	0.69	2003	Wood Unknown condition (management not known)	0.41	Create new/restore relict wood	0.69
Rail side	GiGL_HAB_13734	TQ1215789509	3.47	2003	Wood Unknown condition (management not known)	3.12	Create new/restore relict wood	3.46
Rail side	GiGL_HAB_13735	TQ1136889822	2.08	2003			Create new/restore relict wood	2.07
Missing Site Name, and parcel name	GiGL_HAB_13889	TQ1196790312	0.47	0000				
Little Common, Pinner, S half of Park	GiGL_HAB_13895	TQ1186889904	0.87	2003			Create new/restore relict wood	0.87
Little Common, Pinner, Childrens Play Area and Oak Copse	GiGL_HAB_13896	TQ1185089995	0.45	2003			Create new/restore relict wood	0.45
Little Common, Pinner, Woodland/scrub clump to N of Park	GiGL_HAB_13897	TQ1183290047	0.24	2003	Wood Unknown condition (management not known)	0.12	Create new/restore relict wood	0.24
Pinner Recreation Ground	GiGL_HAB_13898	TQ1157089712	1.25	2003			Create new/restore relict wood	1.25
Meredith Close 'Private Green'	GiGL_HAB_13990	TQ1177391230	0.32	2003			Create new/restore relict wood	0.32
Fenced triangle of grassland 294, Marsworth Gree	GiGL_HAB_13991	TQ1187390918	0.44	2003			Create new/restore relict wood	0.44

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 to 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	Polygon 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			
Albury Drive	OS_Hr_0266	TQ1123290813	0.16	Amenity	amenity green space			Free	
Cheney Street	OS_Hr_0301	TQ1135689154	0.29	Natural And Semi-natural Urban Greenspace	private woodland		SINC (64%)		
Chestnut Avenue Allotments	OS_Hi_0055	TQ0970790438	0.93	Allotments, Community Gardens And City Farms	allotments		Green Belt (100%)	restricted	
Coniston Gardens open space	OS_Hi_0063	TQ1013089098	1.23	Parks And Gardens	park		Small Open Space	free	
Cuckoo Hill	OS_Hi_0075	TQ1104389388	2.37	Amenity	amenity green space		Local Park and Open Space	free	
Eastcote House gardens	OS_Hi_0090	TQ1071888713	3.17	Parks And Gardens	park		Local Park and Open Space Green chain Green Flag Award - 2012	free	Car parking Historic features Horse riding Information Litter bins Seats
Fore Street Meadow	OS_Hi_0112	TQ0995889116	2.83	Other Urban Fringe	agriculture		SINC (100%) Green Belt (97%)	none	
Frithwood Park	OS_Hi_0120	TQ0956891789	1.07	Parks And Gardens	park		Small Open Space	free	Dog litter bins/area Litter bins Play for under 7s Seats Tennis court
Frithwood School	OS_Hi_0121	TQ0968591749	0.70	Amenity	educational			restricted	
Grangewood School and Coteford Junior School Grounds	OS_Hi_0131	TQ0998988819	5.09	Amenity	educational		SSSI (8%) NNR (8%) SINC (10%) Green Belt (20%)	restricted	Athletics track Car parking Disabled facilities Information Litter bins Nature trail Play for 7-13 Recycling facilities Seats Toilets
Greenway	OS_Hr_0327	TQ1091590427	0.20	Amenity	amenity green space			Free	
Harlyn Primary & Nursery School	OS_Hi_0149	TQ1074489828	1.87	Amenity	educational			restricted	Play for 7-13 Play for under 7s
Haste Hill Farm	OS_Hi_0155	TQ0980289456	0.83	Other Urban Fringe	agriculture		Green Belt (98%)	de facto	
Haste Hill Golf Course	OS_Hi_0156	TQ0928890127	38.76	Outdoor Sports Facilities	golf course		SINC (11%) Green Belt (100%)	restricted	Car parking Golf course Information Litter bins Refreshments Waymarked walking route
Haydon Hall Meadows	OS_Hi_0157	TQ1054189566	21.04		agriculture; nature reserve; other (specify); river; vacant land	agriculture; nature reserve; other (specify); river; vacant land	SINC (45%) Green Belt (98%)	None	

Site Name	Polygon 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			
Haydon Hall Park	OS_Hi_0158	TQ1054888954	6.16	Outdoor Sports Facilities	playing fields	common	Local Park and Open Space SINC (48%) Conservation Area Green chain	De facto Restricted	Car parking Changing rooms Cricket pitch Full playing pitch Information Toilets
Haydon School grounds	OS_Hi_0159	TQ1011989545	7.31	Amenity	educational			restricted	Tennis court
Hogs Back open space	OS_Hi_0182	TQ1029190893	4.81	Amenity	amenity green space		Local Park and Open Space SINC (88%)	free	Information
Jubilee Close	OS_Hr_0449	TQ1131690445	0.25	Amenity	landscaping around premises			Free	
Jubilee Close Play Area	OS_Hr_0450	TQ1132390417	0.01	Children And Teenagers	play space			Free	
Little Common, Pinner	OS_Hr_0072	TQ1185189956	1.57	Parks And Gardens	park	play space	Small Open Space	free	Petanque Play for 7-13 Play for under 7s
Marsworth Green	OS_Hr_0031	TQ1187390918	0.44	Amenity	amenity green space			free	
Meredith Close 'Private Green'	OS_Hr_0081	TQ1177391230	0.32	Amenity	amenity green space			free	
Metropolital Line - Watford Branch	OS_Hi_0227	TQ0943390976	11.36	Green Corridors	railway cutting		SINC (28%)	none	
Mill Farm Close	OS_Hr_0473	TQ1116490299	0.08	Amenity	amenity green space			Free	
Montesoles Allotments	OS_Hr_0358	TQ1157790432	0.88	Allotments, Community Gardens And City Farms	allotments			restricted	
Montesoles Playing Fields	OS_Hr_0097	TQ1142890345	6.71	Outdoor Sports Facilities	recreation ground	play space		free	Basketball hoops Car parking Cricket pitch Full playing pitch Play for 7-13 Play for under 7s Skateboard area Tennis court
Montesoles Woodland	OS_Hr_0359	TQ1144090525	2.88	Natural And Semi-natural Urban Greenspace	public woodland		SINC (96%)	free	
Northwood Cemetery	OS_Hi_0250	TQ0969990260	6.43	Cemeteries And Churchyards	cemetery/churchyard		Green Belt (100%)		Information Litter bins Sculptures/monuments Seats
Northwood Comprehensive School & Sports Centre	OS_Hi_0251	TQ1048790551	5.99	Amenity	educational			restricted	Cricket pitch Tennis court
Northwood FC	OS_Hi_0253	TQ0983790325	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

Site Name	Polygon 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 Golf Course	OS_Hi_0254	TQ0895190802	46.22	Outdoor Sports Facilities	golf course		SINC (18%) Green Belt (99%)	restricted	Golf course Information Litter bins Refreshments Seats Toilets
Northwood Recreation Ground	OS_Hi_0255	TQ0997390338	9.67	Outdoor Sports Facilities	recreation ground	park	Local Park and Open Space Green Belt (99%)	free	Bowling green Cricket pitch Play for under 7s Seats Skateboard area Tennis court Waymarked walking route
Nursery Road	OS_Hr_0481	TQ1111089813	0.56	Amenity	amenity green space			Free	
Old Pumping Station Fields	OS_Hi_0261	TQ0839489300	8.13	Amenity	amenity green space		Local Park and Open Space SINC (100%) Green Belt (99%)	Free	
Pinner Green	OS_Hr_0486	TQ1130789982	0.10	Civic Spaces	other hard surfaced area			Free	
Pinner Hill Golf Course	OS_Hr_0098	TQ1124891395	52.25	Outdoor Sports Facilities	golf course		SINC (99%) Conservation Area Green Belt (100%)	none	
Pinner Recreation Ground	OS_Hr_0101	TQ1157089712	1.25	Parks And Gardens	park	play space	Small Open Space	free	Play for 7-13 Play for under 7s
Pinner Wood School	OS_Hr_0353	TQ1116590682	0.44	Amenity	educational			None	
Pinnerwood Farm	OS_Hr_0104	TQ1192591800	47.41	Other Urban Fringe	agriculture	private woodland	SINC (9%) Conservation Area Green Belt (100%)	restricted	
Rail side (Harrow)	OS_Hr_0108	TQ1322088812	17.94	Green Corridors	railway cutting	railway embankment		none	
Raisins Hill Common	OS_Hi_0290	TQ1112689642	1.15	Parks And Gardens	park		Small Open Space	free	Dog litter bins/area Litter bins
River Pinn near Eastcote	OS_Hi_0300	TQ1092188991	8.11		common; nature reserve	common; nature reserve	SINC (89%) Conservation Area Green chain	free	Information Waymarked walking route
Riverside Walk at Eastcote Road	OS_Hi_0303	TQ1045388560	1.39	Green Corridors	walking/cycling route		Linear Open Space SINC (93%) Conservation Area Green chain	free	Waymarked walking route
Ruislip and Northolt Co-op Allotmentholders	OS_Hi_0308	TQ1032990028	2.32	Allotments, Community Gardens And City Farms	allotments		Green Belt (99%)	restricted	Car parking Information
Ruislip Woods	OS_Hi_0313	TQ0889889484	245.66	Natural And Semi-natural Urban Greenspace	nature reserve	common; other (specify)	SSSI (86%) NNR (81%) Metropolitan Park SINC (99%) Conservation Area Green Belt (100%) Green Flag Award - 2012	free	Car parking Cycle paths Horse riding Information Litter bins Play for 7-13 Play for under 7s Refreshments Seats Water sports Waymarked walking route
St Helens School	OS_Hi_0336	TQ0947091591	7.42	Amenity	educational		Conservation Area	restricted	

Site Name	Polygon 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			
St Johns School	OS_Hi_0337	TQ1050191386	12.69	Amenity	educational	nature reserve	SINC (19%) SINC (9%) Green Belt (98%)	Restricted	Changing rooms Cricket pitch Information Nature trail Play for 7-13
St. Martin's School	OS_Hi_0339	TQ0860592106	1.96	Amenity	educational			restricted	Car parking Changing rooms Cricket pitch Litter bins Seats Toilets
St. Vincent's Hospital	OS_Hi_0341	TQ0969289753	1.62	Amenity	hospital	landscaping around premises; vacant land	SINC (97%) Green Belt (100%)	De facto	
The Grail Centre	OS_Hr_0156	TQ1177190258	3.38	Amenity	landscaping around premises			none	
The Gravel Pits B1120	OS_Hi_0361	TQ0838891298	5.97	Natural And Semi-natural Urban Greenspace	nature reserve		Local Park and Open Space SINC (99%) Green Belt (92%)	free	Information Seats
Waxwell Lane	OS_Hr_0421	TQ1182690453	0.15	Amenity	amenity green space			Free	
Wiltshire Meadows	OS_Hi_0396	TQ0967789363	6.42	Other Urban Fringe	agriculture	landscaping around premises	SINC (10%) Green Belt (100%)	None	
Woodridings Brook	OS_Hr_0194	TQ1196790312	0.47	Green Corridors	river			None	

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@hillingdon.gov.uk

London Borough of Harrow

Denis Vickers
Biodiversity Officer
Placeshaping - Design & Conservation
PO Box 37
Civic Centre
Station Road
Harrow
HA1 2UY

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

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**
Organisation	**GiGL – Greenspace Information for Greater London**
Email	enquiries@gigl.org.uk
Website	www.gigl.org.uk

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

Areas of expertise	**Bats**
Organisation	**London Bat Group**
Email	enquiries@londonbats.org.uk
Website	www.londonbats.org.uk

Areas of expertise	**Regional biodiversity action plans**
Organisation	**London Biodiversity Partnership**
Website	www.lbp.org.uk

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

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

Areas of expertise	**Odonata - Dragonflies and damselflies**
Name	**Neil Anderson**
Organisation	**London Natural History Society**
Email	neil@anders42.freeserve.co.uk
Website	www.lnhs.org.uk

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

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

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

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

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

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

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

Areas of expertise	**Geological Designations**
Organisation	**London Geodiversity Partnership**
Email	info@londongeopartnership.org.uk
Website	www.londongeopartnership.org.uk

Annex A - MAPS

Statutory Sites Map

SINCs Map

RIGS or LIGS Map

Survey Parcels Map

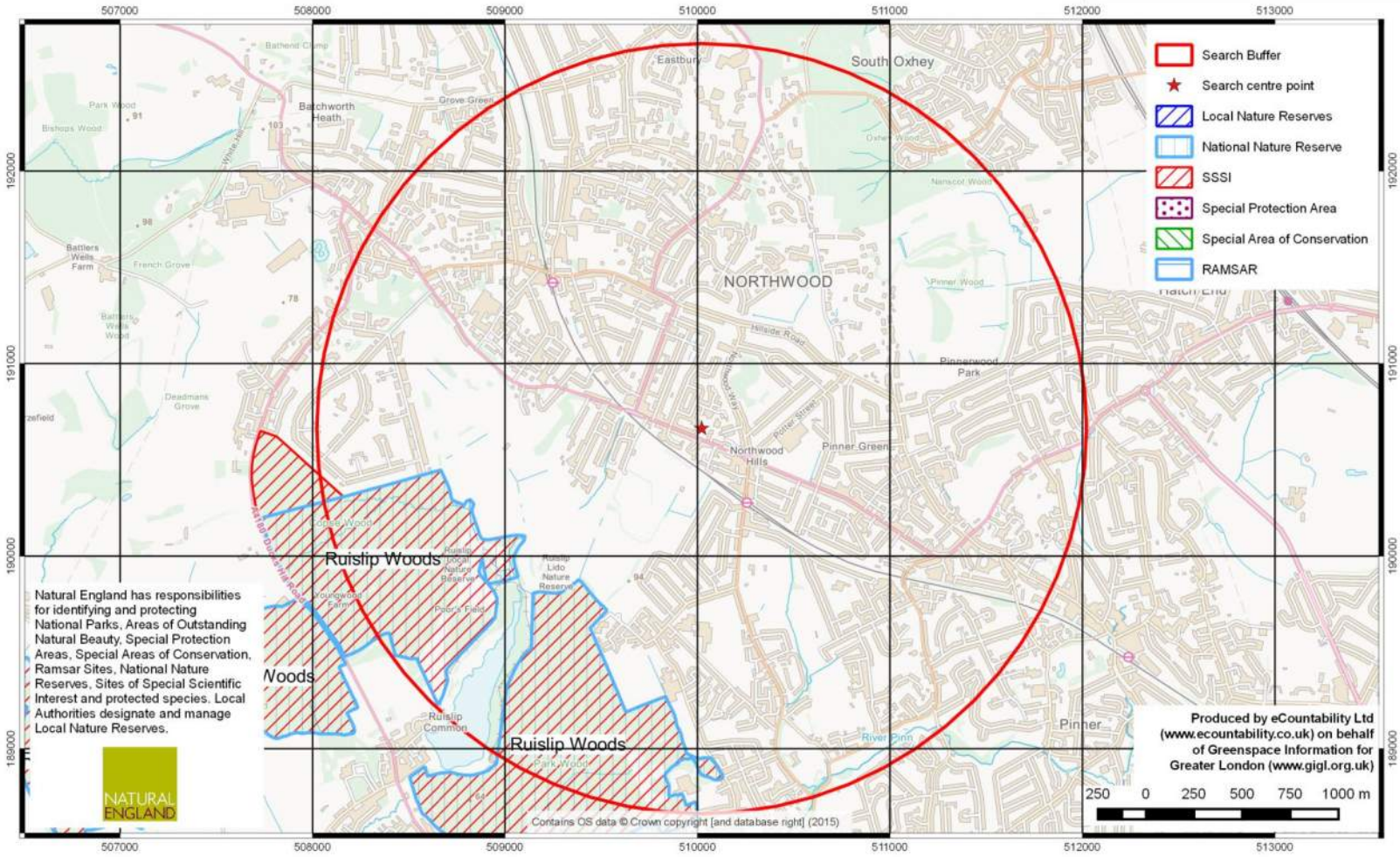
Open Space Map

Metropolitan Open Land and Green Belt Map

GiGL Data Holdings Check

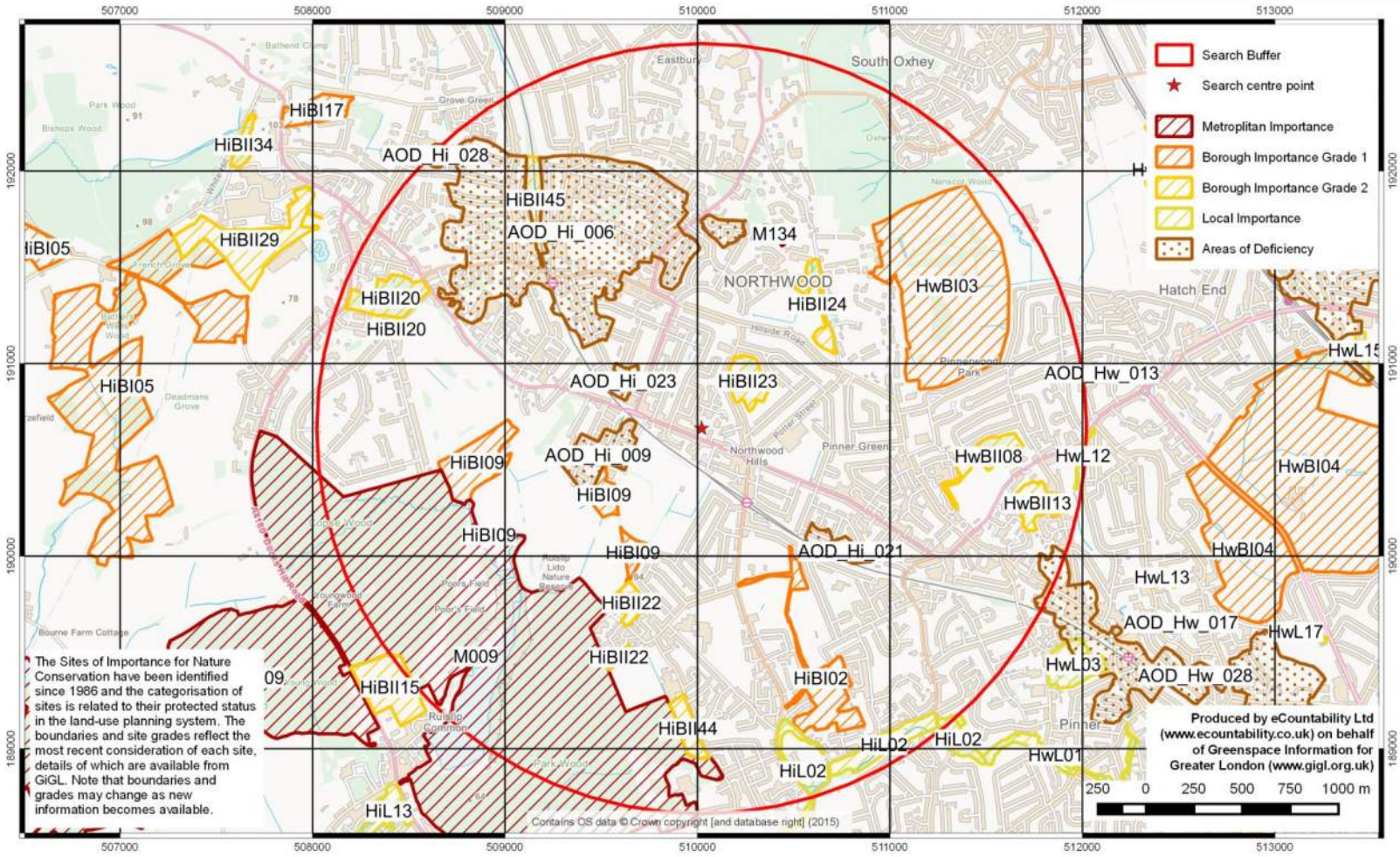
Statutory Site Designations

Ecological Data Search for WYG
Northwood and Pinner Hospital, 10 September 2015



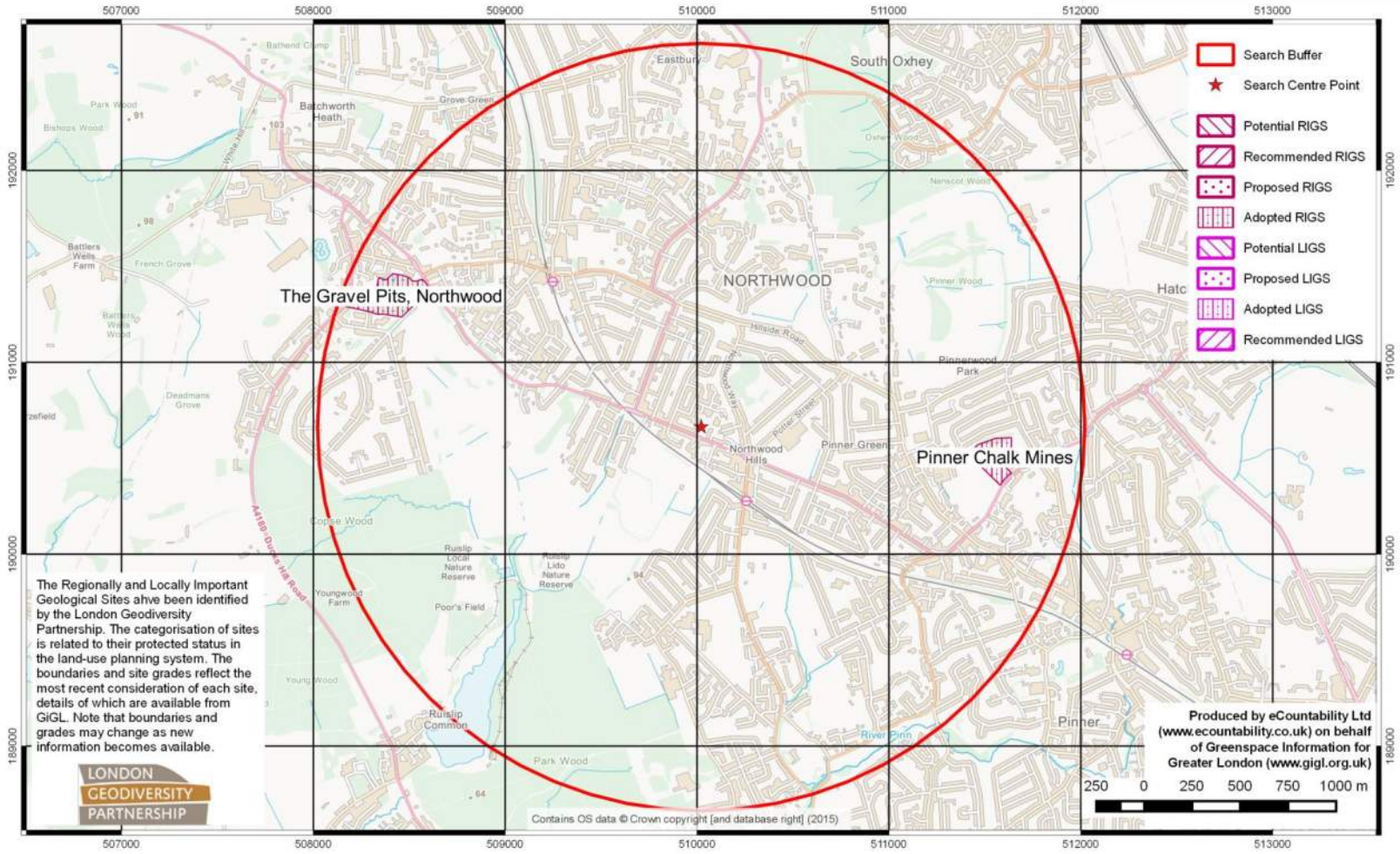
Sites of Importance for Nature Conservation

Ecological Data Search for WYG
Northwood and Pinner Hospital, 10 September 2015



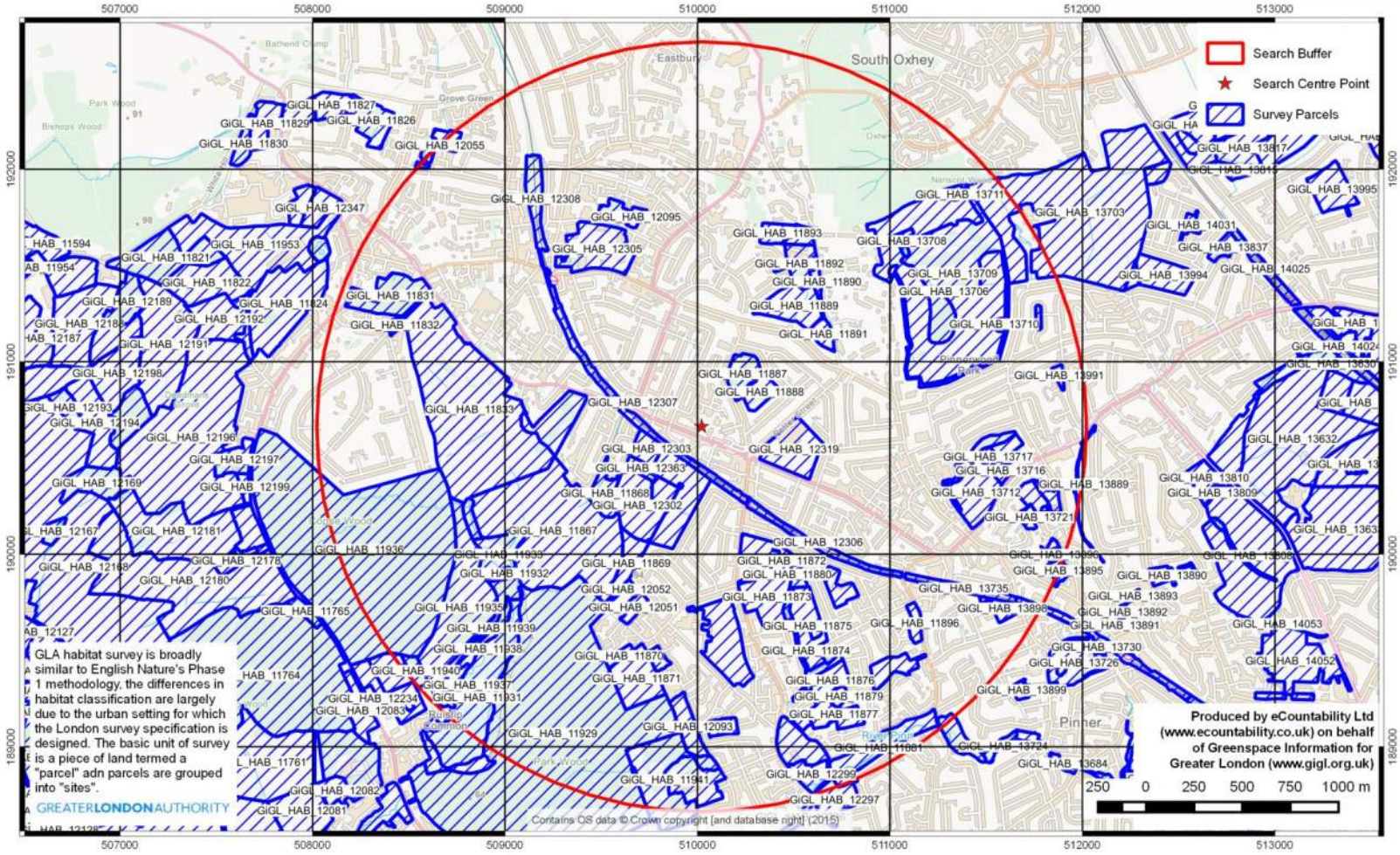
Important Geological/Geomorphological Sites

Ecological Data Search for WYG
Northwood and Pinner Hospital, 10 September 2015



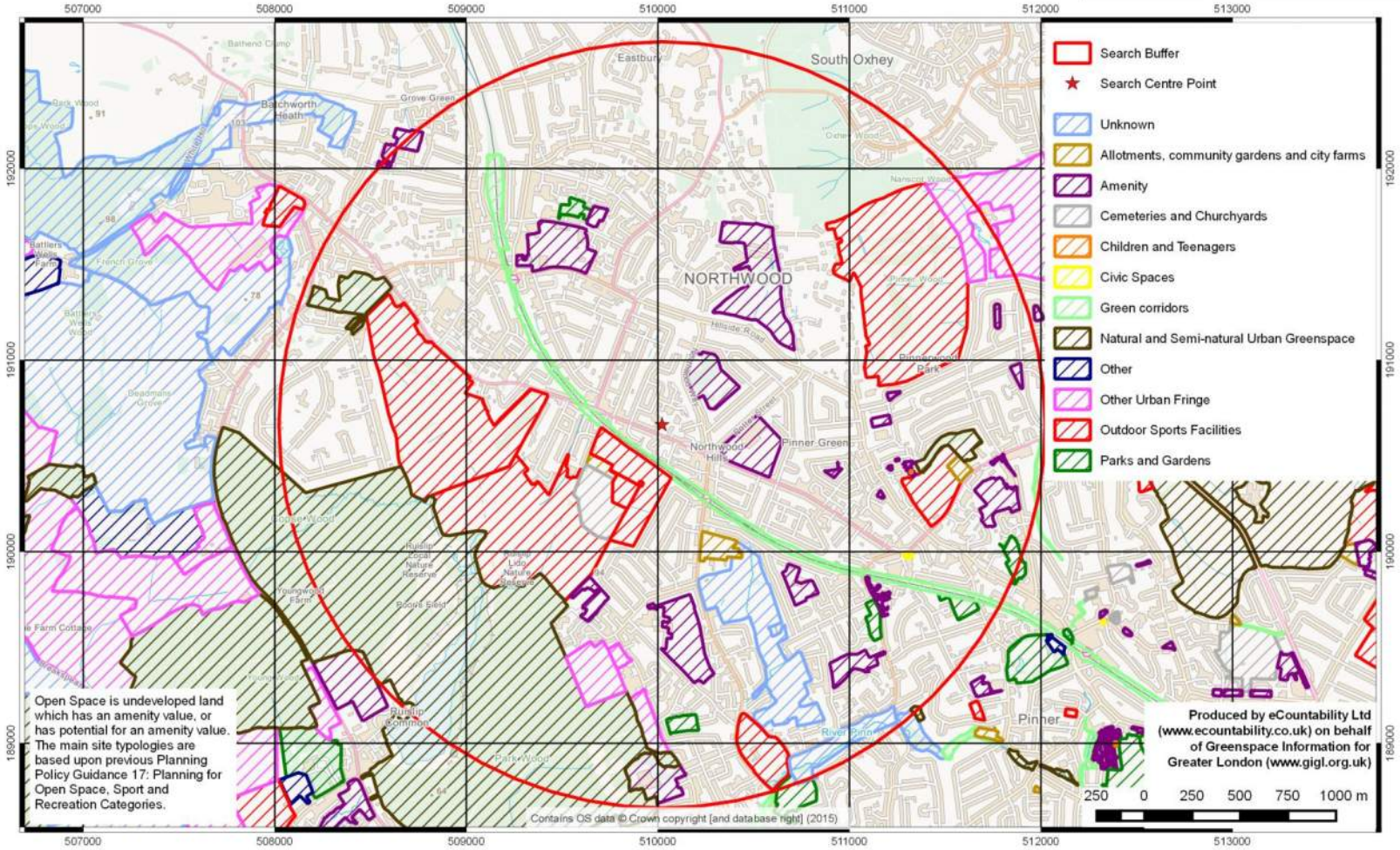
Habitat Survey Parcels

Ecological Data Search for WYG
Northwood and Pinner Hospital, 10 September 2015



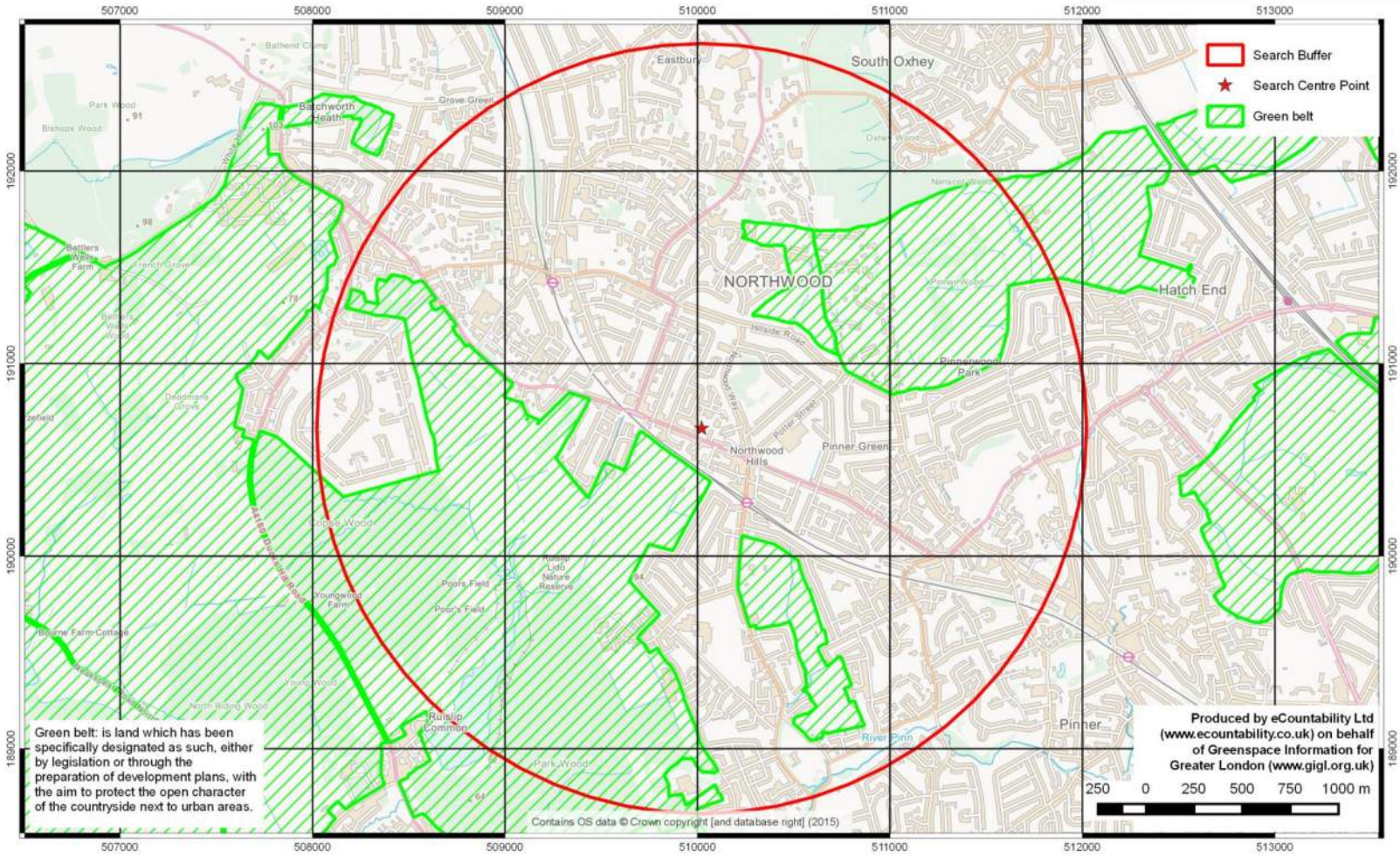
Open Spaces

Ecological Data Search for WYG
Northwood and Pinner Hospital, 10 September 2015



Green Belt

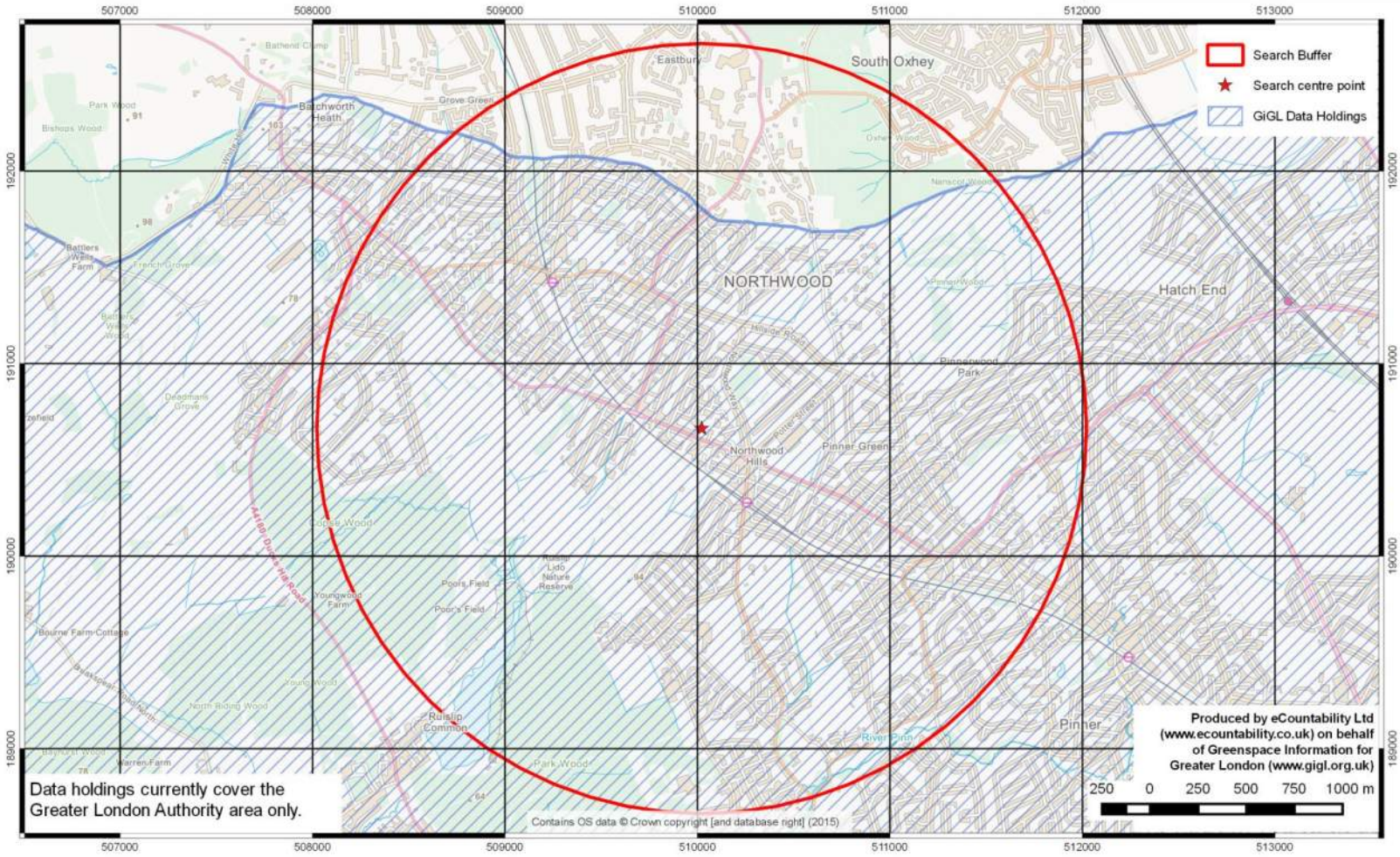
Ecological Data Search for WYG
Northwood and Pinner Hospital, 10 September 2015



GiGL Data Holdings Check

Ecological Data Search for WYG
Northwood and Pinner Hospital, 10 September 2015

GiGL eCountability



Annex B - Supporting Information

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	Section 9.4 Animals which are protected from intentional disturbance while occupying a structure or place used for

9.4b)	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 Strategy[1]. Policy 7.19 contains the following statement;

> *The Mayor's Biodiversity Strategy[2] 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 Conservation[3].*

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 significant[4] 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	*Meles meles*	All records
Adder	*Vipera berus*	All records
Garganey	*Anas querquedula*	Records from April -July only
Pochard	*Aythya ferina*	Records from April -July only
Quail	*Coturnix coturnix*	All records
Red-necked Grebe	*Podiceps grisegena*	Records from April -July only
Black-necked Grebe	*Podiceps nigricollis*	Records from April -July only
Little Egret	*Egretta garzetta*	Records from April -July only
Honey Buzzard	*Pernis apivorus*	Records from April -July only
Red Kite	*Milvus milvus*	Records from April -July only
Marsh Harrier	*Circus aeruginosus*	Records from April -July only
Goshawk	*Accipiter gentilis*	All records
Common Buzzard	*Buteo buteo*	Records from April -July only
Hobby	*Falco subbuteo*	All records
Peregrine Falcon	*Falco peregrinus*	All records
Avocet	*Recurvirostra avosetta*	Records from April -July only
Little Ringed Plover	*Charadrius dubius*	Records from April -July only
Ruff	*Philomachus pugnax*	Records from April -July only
Common Snipe	*Gallinago gallinago*	Records from April -July only
Turtle Dove	*Streptopelia turtur*	Records from April -July only
Barn Owl	*Tyto alba*	All records
Long-eared Owl	*Asio otus*	All records
Short-eared Owl	*Asio flammeus*	Records from April -July only
Nightjar	*Caprimulgus europaeus*	All records
Woodlark	*Lullula arborea*	All records
Tree Pipit	*Anthus trivalis*	Records from April-July only
Black Redstart	*Phoenicurus ochruros*	Records from April -July only
Cetti's Warbler	*Cettia cetti*	All records
Marsh Warbler	*Acrocephalus palustris*	All records
Dartford Warbler	*Sylvia undata*	All records
Firecrest	*Regulus ignicapilla*	Records from April -July only
Bearded Tit	*Panurus biarmicus*	All records
Willow Tit	*Poecile montanus*	All records
Marsh Tit	*Poecile palustris*	Records from April -July only
Golden Oriole	*Oriolus oriolus*	All records
Hawfinch	*Coccothraustes coccothraustes*	All records
Corn Bunting	*Miliaria calandra*	All records
Lesser-spotted Woodpecker	*Dendrocopus minor*	Records from April -July only
Lizard orchid	*Himantoglossum hircinum*	All records
Cannabis	*Cannabis sativa*	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

Code	Name	Definition
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 *Salix cinerea, caprea* and *viminalis*, 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 *Salix cinerea, caprea* and *viminalis* 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.
36	Vegetated	Includes ruins, fences and other artificial structures with an appreciable

Code	Name	Definition
	walls, tombstones. etc	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 *Deschampsia flexuosa, Molinia caerulea, Nardus stricta, Juncus squarrosus, Galium saxatile, Potentilla erecta* or *Rumex acetosella* in abundance.
09	Neutral grassland (semi-improved)	Mesotrophic grassland usually with one or more of *Arrhenatherum elatius, Deschampsia cespitosa, Alopecurus pratensis, Cynosurus cristatus, Dactylis glomerata, Festuca arundinacea* or *F.pratensis*. Contains more than just *Lolium perenne, Trifolium repens, Rumex acetosa, Taraxacum, Bellis perennis* and *Ranunculus* 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 *Primula veris, Lychnis flos-cuculi, Achillea ptarmica, Silaum silaus, Succisa pratensis, Stachys officinalis, Serratula tinctoria, Ophioglussum, Gensita tinctoria, Sanguisorba officinalis* or *Caltha palustris,* or an abundance of *Carex ovalis, Pimpinella saxifraga, Conopodium majus, Cardamine pratensis, Knautia* or *Filipendula ulmaria*.
10	Basic grassland	Un- or semi-improved grassland containing calcicoles. Usually with some of *Brachypodium pinnatum, Bromopsis erecta, Heliotrichon pratense, Thymus polytrichus, Sanguisorba minor, Centaurea scabiosa* or *Origanum vulgare* in some abundance.
11	Improved or re-seeded agricultural grassland	Species-poor mesotrophic grassland containing little but *Lolium perenne, Trifolium repens, Agrostis* species*, Bellis perennis, Taraxacum* and *Ranunculus* 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 *Senecio squalidus, S.vulgaris, Sinapis arvensis, Poa annua, Hirschfeldia incana* and species of *Polygonum, Persicaria, Melilotus, Atriplex, Chenopodium, Medicago, Vulpia, Picris, Lactuca, Diplotaxis, Conyza* and *Reseda*.
13	Bracken	Stands where bracken is dominant. Also used with other habitat codes to indicate scattered bracken.

Code	Name	Definition
14	Tall herbs	Stands of tall non-grass herbaceous species, often rhizomatous perennials, such as *Fallopia japonica, Conium maculatum, Chamerion angustifolium, Anthriscus sylvestris, Urtica dioica, Epilobium hirsutum, Solidago canadensis* and species of *Aster* and *Heracleum*. 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 *Ulex minor*, with less than 50% cover of *Sphagnum*. 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 *Sphagnum* mosses (greater than 50% cover) with water table at or just below the surface.
17	Reedswamp	Stands of *Phragmites australis* with at least 75% cover of reeds. Includes dry and tidal stands.
40	Typha, etc swamp	Stands of *Glyceria maxima, Typha* species or *Phalaris arundinacea* 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 *Iris pseudacorus, Apium nodiflorum, Acorus calamus* and species of *Rorippa, Alisma* and *Juncus*. May include *Phragmites, Typha* and *Glyceria maxima*, 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.
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).

Code	Name	Definition
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 *Phragmites, Typha, Glyceria* and *Phalaris arundinacea*. 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 species 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 or attractive areas which are not fully accessible to the public but contribute to the enjoyment of the space.	Variable	Wherever feasible

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)

APPENDIX C – Wildlife boxes and access

Bird Boxes

A variety of bird box designs could be installed throughout the development site to attract a diversity of species. Open fronted boxes will attract species such as robins, pied wagtails and spotted flycatchers, while boxes with entrance holes will attract tits, wrens and tree sparrows. Roost pockets will be used by roosting birds over the winter and by smaller species, such as wrens, for nesting in the spring.

Sparrow terrace

The house sparrow is a gregarious species and boxes can be sited close together. Sparrow terraces take advantage of this incorporating two or more separate nesting chambers within the terrace. There are several designs for this and the boxes can be mounted on or in the wall.

Open Fronted Boxes

This box is attractive to robins, pied wagtails, spotted flycatcher, wrens and black redstarts and is best sited on the walls of buildings with the entrance on one side.

These woodcrete boxes are designed to mimic natural nest sites and provide a stable environment for chick rearing and winter roosting. They can be expected to last 25 years or more without maintenance.

Boxes with Entrance Holes

This box is attractive to smaller birds such as tits, wrens and tree sparrows. Sparrow terraces are also available.

APPENDIX E – ECOLOGICAL APPRAISAL 2018

Northwood and Pinner Hospital and Northwood Health Centre

Ecological Appraisal

For NHS Property Services

April 2018

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Contents

Executive Summary

Contents	Summary
Site Location	Both sites are in north-west London. Northwood and Pinner Hospital: Pinner Road, Northwood, HA6 1DE. The centre of the site is located at grid reference TQ 1000 9066 Northwood Health Centre: Neal Close, Acre Way , Northwood, HA6 1TQ. The centre of the site is located at grid reference TQ 1010 9068.
Proposals	The development proposals have not yet been finalised, however NHS property services are looking at options for disposal of the two sites which are likely to include demolition of buildings and clearance of habitat.
Existing Site Information	An ecological appraisal of Northwood and Pinner Hospital was undertaken in 2015 by WYG which included an Extended Phase 1 Habitat Survey and Bat Emergence and Return Survey. Of note were two bat roosts found in the main hospital building along with an annex.
Scope of this Survey(s)	Ecological Appraisal of the two sites, to determine the potential to support protected or notable habitats and species
Results	The sites contains no habitats of significant value. The sites support or could support the following: • Reptiles; • Bats (a roost was found in 2015 in the hospital buildings); and • Nesting birds. The sites contain the invasive species wall cotoneaster and butterfly bush.
Recommendations	• Manage vegetation to prevent it becoming more suitable for reptiles, undertake precautionary clearance; • Incorporate suitable habitats for reptiles including refugia where possible within the new development; • Carry out emergence and return to roost surveys to update the baseline information on bats; • Apply for EPSL for works which may impact bats which will include bat boxes or similar as mitigation for any roosts lost; • Undertake vegetation clearance and building demolition outside the bird nesting season, or after a nesting bird check; • Incorporate bird nest boxes into the new buildings; and • Take actions to avoid spreading invasive species in the wild.

AONB	Area(s) of Outstanding Natural Beauty
Badger Act	Protection of Badgers Act 1992
BCT	Bat Conservation Trust
BoCC	Bird(s) of Conservation Concern
BTO	British Trust for Ornithology
CEnv	Chartered Environmentalist
CIEEM	Chartered Institute of Ecology & Environmental Management
CRoW Act	Countryside and Rights of Way Act 2000
EcIA	Ecological Impact Assessment
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EMP	Ecological Management Plan
EPS	European Protected Species
EPSL	European Protected Species Licence
GCN	Great crested newt
Habitat Regulations	Conservation of Habitats and Species Regulations 2017
HAP	Habitat Action Plan
Hedgerow Regulations	Hedgerow Regulations 1997
HPI	Habitat(s) of Principal Importance
HRA	Habitats Regulations Assessment
JNCC	Join Nature Conservancy Council
LERC	Local Ecological Record Centre
LBAP	Local Biodiversity Action Plan
LNR	Local Nature Reserve
LPA	Local Planning Authority
MCIEEM	Member of Chartered Institute of Ecology & Environmental Management
Natura 2000 site	A European site designated for its nature conservation value
NE	Natural England
NERC Act	Natural Environment and Rural Communities Act 2006
NNR	National Nature Reserve
NPPF	National Planning Policy Framework
PEA	Preliminary Ecological Appraisal
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SAP	Species Action Plan
SNCO	Statutory Nature Conservation Organisations
SPA	Special Protection Area
SPI	Species of Principal Importance
SSSI	Site(s) of Special Scientific Interest
W&CA	Wildlife & Countryside Act 1981(as amended)

1.0 Introduction

1.1 Background

WYG was commissioned by NHS Property Services on 11th July 2017 to undertake an Ecological Appraisal of the sites known as Northwood and Pinner Hospital and Northwood Heath Centre.

This report has been prepared by Tim Bradford Associate Ecologist CEnv MCIEEM MSc. BSc.

1.2 Site Location

1.2.1 Northwood and Pinner Hospital ('the hospital')

The site consists of the hospital and surrounding grounds including access roads, car parks and gardens. The site is located on Pinner Road, Northwood, HA6 1DE, in the London Borough of Hillingdon with the site centre at Ordnance Survey grid reference TQ 1000 9066.

1.2.2 Northwood Health Centre ('the health centre')

Located immediately north-east of the hospital, it consists of the health centre building which is surrounded by amenity grassland and access roads/parking spaces. The site is located on Neal Close, Acre Way, Northwood, HA6 1TQ. The centre of the site is located at grid reference TQ 1010 9068.

The sites are both within an urban area surrounded mainly by housing. They are within the conurbation, but close to the north-west edge of Greater London and within 200m to the north and south are large open green spaces.

1.3 Development Proposals

Details of the proposed development are not yet available. However it will involve demolition of the buildings and clearing most if not all of the remaining habitats. The new development is likely to be mostly residential.

1.4 Purpose of the Report

The objectives of this assessment are to carry out:

- A desk study to obtain existing information on statutory and non-statutory sites of nature conservation interest and relevant records of protected/notable species within the site and its zone of influence;
- A preliminary ecological appraisal involving a walkover of the site to record habitat types and dominant vegetation, including any invasive species, and a reconnaissance survey for evidence of protected fauna or habitats capable of supporting such species;
- An assessment of the potential ecological receptors present on site, any constraints they pose to future development and any recommendations for any further surveys, avoidance, mitigation or enhancement measures that are needed (as appropriate).

Note that, where possible, common names for flora and fauna have been used throughout this report for ease of reading.

2.0 Methodology

2.1 Desk Study

2.1.1 Previous Reports

WYG undertook an Extended Phase 1 Habitat Survey with follow up Bat Internal and Emergence and Return Surveys in August and September 2015.

2.1.2 Local Ecological Records Centre

Information was requested from the Greenspace Information for Greater London (GIGL) for information on any nature conservation designations and protected or notable species records within 2 km of the site. Only relatively recent records (i.e. from no earlier than 2005) have been included in the assessment unless stated otherwise.

The data search covers:

- Statutory designated sites for nature conservation, namely SACs, SPAs, Ramsar sites, SSSIs, NNRs and LNRs;
- Non-statutory designated sites for nature conservation, namely LWS;
- Legally protected species, such as great crested newts, bats and badger;
- Notable habitats and species, such as those listed as Habitats or Species of Principal Importance; and,
- Priority habitats or species within the London LBAP.

The data search did not cover:

- Tree Preservation Orders (TPOs); or
- Conservation Areas designated for their special architectural and historic interest.

2.1.3 Online Resources

A search for relevant information was also made on the following websites:

- MAGIC www.magic.gov.uk - DEFRA's interactive, web-based database for statutory designations and information on any EPSL applications that have been granted in the local area since 2015.
- NBN Atlas https://nbnatlas.org/ - for records of protected and notable species

2.2 Field Surveys

The following methodologies have been used to identify the ecological receptors present on or near each site, which are relevant to the proposed development.

2.2.1 Habitats

An Extended Phase 1 Habitat Survey was undertaken on the sites on 25th July 2017 by Tim Bradford. The weather conditions were warm and dry.

The vegetation and broad habitat types within the sites were noted during the survey in accordance with the categories specified for a Phase 1 Vegetation and Habitat Survey (Joint Nature Conservation Committee, 2010). Dominant plant species were recorded for each habitat present using nomenclature according to Stace (2010). The site was also appraised for its suitability to support notable flora, with regard to the CIEEM Guidelines for Preliminary Ecological Appraisal (2013).

2.2.2 Protected & Notable Species

The sites were inspected for evidence of, and their potential to support, protected or notable species, especially those listed under Schedule 2 of the Habitat Regulations, Schedule 5 of the W&CA, the CRoW Act, those given extra protection under the NERC Act, and species included in the London LBAP.

Great Crested Newt

Each site was appraised for its suitability to support GCN. The assessment was based on Guidance outlined in the Joint Nature Conservation Committees' published *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and the *Great Crested Newt Conservation Handbook* (Langton, Becket & Foster, 2001).

Bats

Roosting bats – Buildings/structures/trees

Any suitable buildings, structures or trees on site were assessed from the ground for their suitability to support breeding, resting and hibernating bats using survey methods based on the BCT *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd ed, 2016) – hereafter referred to as the 'BCT Guidelines'. The following system has therefore been used to categorise the bat roost suitability of any features found:

Table 1 Categories of Bat Roost Suitability (BCT Guidelines)

Suitability	Typical Roosting Features
Negligible	Negligible habitat feature on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A structure or tree with one or more potential roost sites 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 (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
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 & potentially for longer

Suitability	Typical Roosting Features
	periods of time due to their size, shelter, protection, conditions & surrounding habitat.

Foraging/commuting bats

The BCT Guidelines use the following criteria to categorise the potential value of habitats and features for use by foraging and commuting bats and these have been used to characterise the value of these sites:

Table 2 Categories of Habitat Suitability (BCT Guidelines)

Suitability	Typical Foraging & Commuting Features
Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Reptiles

The sites were appraised for their suitability to support reptiles. The assessment was based on guidance outlined in the Joint Nature Conservation Committees' published *Herpetofauna Workers' Manual* (Gent & Gibson, 2003).

Badgers

Each site was surveyed for evidence of badger setts or other badger activity such as paths, latrines or signs of foraging. Methodologies used and any setts recorded were classified according to published criteria (Harris, Cresswell & Jefferies, 1989).

Other Species

The sites were also appraised for their suitability to support other protected or notable fauna including mammals, amphibians, birds and invertebrates with regard to CIEEM's *Guidelines for Preliminary Ecological Appraisal* (2013) and *BS42020:2013 Biodiversity – Code of Practice for Planning and Development*. Evidence of any current or historical presence of such species was recorded.

2.2.3 Invasive Species

Each site was searched for evidence of invasive plant species, such as Japanese knotweed, Himalayan balsam, giant hogweed, wall cotoneaster and rhododendron –see Appendix A for a full list of plants included on Schedule 9 of the W&CA.

2.3 Limitations

The optimal period to undertake an extended Phase 1 habitat survey is April-September. The survey was completed in July which is in the optimal survey window. As such this is not considered to be a limitation to the accurate assessment of the habitats and the dominant species of the respective vegetation types were visible and identifiable.

To determine presence or likely absence of protected species usually requires multiple visits at suitable times of the year. As a result, this survey focuses on assessing the potential of the site to support species of note, which are considered to be of principal importance for the conservation of biodiversity with reference to those given protection under UK or European wildlife legislation. This report cannot therefore be considered a comprehensive assessment of the ecological interest of the site. However, it does provide an assessment of the ecological interest present on the day the site was visited and highlights areas where further survey work may be recommended.

The details of this report will remain valid for a period of **two years** from the date of the survey (i.e. July 2019), after which the validity of this assessment should be reviewed to determine whether further updates are necessary. Note that the recommendations within this report should be reviewed (and reassessed if necessary) should there be are any changes to the site conditions, red line boundary or development proposals which this report was based on.

3.0 Baseline Conditions

3.1 Designated Sites

The following designated sites of nature conservation importance have been identified within 2km of the sites.

Table 3 Designated Sites within 2km

Designation	Site Name	Distance & Direction	Summary of features
Borough Grade II	Hog's Back Open Space (formerly Borough Hill)	0.11km north-east	A hillside site where narrow paths wind through dense woodland, grassland and scrub.
Borough Grade I	Haste Hill Golf Course, Northwood Golf Course and Northwood Park	0.33km South-west	Golf courses close to Ruislip Woods, with woodland and grassland areas.
Borough Grade II	Potter Street Hill	0.64km North-east	A meadow, spinney and other habitats within the grounds of St John's School.
Borough Grade I	Haydon Hall Meadows	0.72km South east	A series of lightly cattle-grazed meadows, an orchard and river corridor in the grounds of Haydon Hall.
Borough Grade II	St Vincent's Hospital Meadows	0.84km south-west	Two fields, one each side of St Vincent's Hospital, rich in butterflies and grasshoppers.
Metropolitan	Potter Street Hill North Pasture	0.95km North	A small field of flower-rich grassland with perhaps the largest population of devil's-bit scabious in London.
SSSI	Ruislip Woods	0.96km south-west	The Ruislip Woods form an extensive example of ancient semi-natural woodland, including some of the largest unbroken blocks that remain in Greater London.
NNR	Ruislip Woods	0.96km south-west	A significant expanse of wooded area, with open grassland supporting a wide range of flowering plants.
Metropolitan	Ruislip Woods and Poor's Field	0.96km South-west	One of London's two National Nature Reserves, this site includes a large area of ancient woodlands, as well as heathland and grassland.

Designation	Site Name	Distance & Direction	Summary of features
Borough Grade I	Pinnerwood Park and Ponds	0.99km North-east	A large private golf course with an ancient wood, flower-rich acid grassland and a number of ponds.
Borough Grade II	Northwood Railway Cutting	1.11km North-west	Wide banks on both sides of railway lines at Northwood.
Borough Grade II	Grim's Ditch and Pinner Green	1.27km East	Woodland associated with ancient earthworks, combining archaeological and historic interest with good wildlife habitat.
Borough Grade II	Fore Street Meadows	1.34km South	Two grazing fields, hedgerow and a section of public footpath situated on the east margin of Park Wood.
Local	River Pinn near Eastcote	1.52km South	The River Pinn flows through a series of open spaces, forming a green corridor.
Borough Grade II	Gravel Pit, Northwood	1.54km North-west	Heavily wooded gravel diggings, excellent for quiet walks.
Borough Grade II	The Grail Centre	1.69km East	The grounds of a religious retreat with a number of wildlife-friendly features.
Borough Grade II	Old Pumping Station Field	1.85km South-west	A large area of rich grassland with good native hedgerow boundaries.
Local	River Pinn at West Harrow	1.95km East	An attractive river corridor with a good range of wildlife habitats.

In additional to the above designations, the nearest Natura 2000 site is Burnham Beeches, a SAC designated for its extensive area of beech woodland, 15 km south-west of the sites.

3.2 Habitats

The following habitats have been identified through our assessment:

3.2.1 Plantation Broadleaved Woodland

Within the south-east corner and along the eastern boundary of the hospital, there were patches of woodland. These all appeared to have been planted and were a mix of species including oak, ash, sycamore and common lime. The understorey was dominated by bramble, with holly and elder frequently encountered.

Photo 1: The broadleaved woodland (eastern boundary of Northwood and Pinner Hospital)

3.2.2 Scattered trees

Photo 2: Scattered trees

Around the hospital site there were individual or small clumps of trees. Where these were growing they were mostly growing within amenity grassland or hard standing.

On the health centre site they were found along the south and west boundary. Trees within this habitat included ash, hawthorn and ornamental cherry.

3.2.3 Amenity grassland

This habitat covered large parts of the centre and east of the hospital site. The grass had grown since the 2015 survey as it is no longer managed and ranged from 25-75 mm. At the time of the survey many of the plants were in flower. Grass species included perennial rye grass, Yorkshire-fog creeping bent and red fescue. Other herbaceous species included yarrow, daisy, lesser celandine and bird's-foot trefoil. On the health centre site the grassland had been regularly maintained and was mostly less than 50 mm.

Photo 3: Amenity grassland

3.2.4 Species-rich hedgerow (defunct)

Photo 4: Species-rich hedgerow

Along the front (south) of the hospital site is a short (approximately 15 m) stretch of hedgerow (see Photo 4). There is a high number of woody species. The species found included ash, hawthorn, sycamore, honeysuckle, copper beech and fig. Whilst the hedgerow has a good diversity of plants, it is adjacent to a busy road, and isolated from other habitats which reduces its value to wildlife. It is classified as *defunct* under Phase 1 classification as it is only a short section and not stock-proof.

3.2.5 Species-poor hedgerow

Along the northern boundary of the hospital site there was a Leyland cypress hedge. This plant has shaded out other competitors making the hedgerow relatively species poor.

Photo 5: The species poor Leyland cypress hedge

3.2.6 Introduced Shrubs

Photo 6: Sections of introduced shrub

Around the borders of the amenity grassland in the hospital site, and adjacent to the health centre building there were several patches of introduced shrubs. Those in the hospital site were no longer maintained, and had overgrown the adjacent grass or pathways. The species within these were predominantly non-native plants and included butterfly bush, variegated box, wall cotoneaster and native dog rose.

3.2.7 Buildings

The buildings on the hospital site comprise the main hospital building with various extensions, brick and wooden sheds to the north, and a substation to the south-east; on the health centre site there was just the centre itself. As buildings can support roosting bats they are discussed further in Section 4.3.

3.2.8 Hard standing

Photo 7: Part of the hard standing (hospital car park)

The hard standing within the sites comprised car parking, access roads and pathways. These were made from tarmac or concrete and unsuitable for plants to grow on or through.

3.3 Protected & Notable Species

3.3.1 Great Crested Newts

Desk Study

There are records of GCN within 2km of the sites. The nearest is 1.4km to the north-west (latest record is from 2011). Although the precise location of this record is not given, the area where it was found is disconnected from the site by dense housing and roadways. The GCN EPSL licence is 1.77km south-west (close to Ruislip Lido).

Field Surveys

HSI Assessment

No water bodies were found within 500m of the sites that were connected by suitable habitat as they are cut off on all side by roads with heavy traffic. No HSI assessment was therefore carried out.

Terrestrial habitat

The habitat on the sites was mostly grassland, buildings and hard standing, all of which are unsuitable for GCN to dwell in their terrestrial phase (though the newts could commute over grass and hard surfaces). The woodland provided more suitable habitat, with the understorey providing cover, and the dead wood from the trees forming potential refugia or hibernacula.

Overall, as there were no potential breeding ponds on or connected to the sites, it is considered unlikely that GCN will use them. As such they are not considered further in this assessment.

3.3.2 Reptiles

Desk Study

Records of slow worm, common lizard, grass snake, and adder were returned within 2km of the sites. The first three were found 1.76km to the south west (latest record 2010), which is likely to be all from the same site. The area where these reptiles were found is disconnected from the sites by Pinner Road. The record for adder does not have a location as this species suffers persecution from humans. The most recent date is given as 2010.

Field survey

The majority of the habitats (i.e. the built structures and hard standing) were of low value for reptiles. Reptiles could bask on the periphery of the hard standing, but it would provide little cover from predators. The grassland was slightly better, providing some more cover and potential invertebrate food source (for common lizard and slow worm), however it is still unlikely to provide significant cover from predators. The most likely areas on the site to support reptiles are at the boundaries of two habitats e.g. amenity grassland and introduced shrubs, where reptiles could bask in short vegetation and find refuge in taller vegetation. Such areas cover only a small portion of the site, therefore the opportunities for reptiles are limited. As the sites are in a dense urban area, and they are disconnected from large areas of other suitable habitats and source populations (though with connection to other relatively small spaces), the sites have low potential for reptiles.

3.3.3 Bats

Desk study

Records of seven species of bat were found within 2km of the sites. The date and distance of the nearest record of each species is given in Table 4. The nearest EPSL record for bats is a licence for soprano and common pipistrelles and brown long-eared bats, 1.27km north-west. This was for the damage or destruction of a non-breeding resting place. No other species are covered within the other licences for bats.

Table 4 Nearest record of each species of bat found within 2km of the sites

English name	Distance and direction	Date
Common pipistrelle	1.27km North-west*	2015**
Soprano pipistrelle	1.27km North-west*	2015**
Brown long-eared bat	1.27km North-west*	2015**
Serotine	1.84km South-west	2006
Daubenton's bat	1.84km South-west	2006
Leisler's bat	1.84km South-west	2006
Noctule	1.84km South-west	2006

*Record taken from EPS licence granted

** Date licence was granted, though bat may have been recorded in a previous season (likely no earlier than 2014).

Previous report

WYG undertook a daytime internal inspection and emergence and return to roost survey of Northwood and Pinner Hospital in 2015. During the survey both the main hospital building (B1) and the annex building had droppings of long-eared bats. Three long-eared bats were seen roosting in the rafters of the annex structure confirming it is an active roost. Due to the presence of relatively fresh droppings in B1 this was also confirmed as a bat roost, likely to be non breeding due to the small number of droppings.

No bats were seen emerging from or returning to any building, but common and soprano pipistrelles, long eared bats, noctules and a Myotis species of bat were all heard flying over the buildings. Foraging activity was minimal.

Field survey

Hospital site

There were five buildings, or sections of buildings within the site. A sixth structure, a burned-out shed was completely unsuitable for bats. Likewise a seventh was a smashed-up shed, and neither were considered for their bat roost potential. The actual hospital building will be considered as three separate structures. For locations of each building/building section see Figure 2.

Main Building (B1)

Photos 8 and 9: The south (left) and west (right) elevations of the Main Building viewed from the south

The Main Building was constructed in the 1920's. The structure was brick mostly covered with a ceramic tiled, pitched roof. There are sections of flat roof on the north, west and east elevation. These were covered with roofing felt, and with the exception of the west elevation, had a parapet wall running around the edges.

The window frames were almost all wooden, with a few modern uPVC frames. Along parts of the western and eastern elevations there were ceramic hanging tiles. These hanging tiles and the ones

on the roof were in a poor condition with several having broken or slipped out. This allowed potential access for bats to get under the roof tiles.

As noted above, fresh droppings were found inside the roof in 2015, therefore the Main Building is a **confirmed bat roost**.

North Annex (B2)

The North Annex is attached to the east side of the Main Building. It is a similar style of structure to the Main Building, and appeared to have been built at the same time or shortly after. It is a brick structure, with a ceramic-tiled roof. It had wooden framed windows, and on the roof there was a door in a dormer structure leading to the roof void.

There were a few slipped or broken tiles on the roof. These provided access under the tiles and potentially into the roof void.

Photos 10 and 11: The North Annex viewed from the north-west (left) and east (right)

As noted above, three long eared bats were observed in the loft void in 2015, therefore the annex building is a **confirmed bat roost**.

South Annex (B3)

Photos 12 and 13: The southern elevation of South Annex showing the brick section (left) and plastic walled section (right)

The South Annex was also joined to the Main Building on that structure's east side. It appeared to be much more modern than the Main Building and North Annex, most likely to be no more than 40 years old. It consists of a plastic-walled section with a metal roof, and a brick section which had a felt roof and wood cladding around the eaves. The structure of the building was in good condition, with no potential bat access points noted in the South Annex.

No evidence of bats was noted.

Given the good condition of the South Annex it had **negligible** bat roost suitability.

Shed (B4)

Photo 13: The Shed viewed from the south-east

To the north-east of the main building there was a brick shed. The roof was formed of concrete covered with roofing felt. Some of the windows had been broken allowing a view inside the structure. There was no opportunity for bats to roost in the building or on the roof.

No evidence of bats was seen.

Given the lack of opportunities for bats, the Shed had **negligible** roosting suitability.

Substation (B5)

At the edge of the woodland in the south-east of the site there was a small building, likely to house a substation or other electrical equipment. It was constructed from brick with a flat felt roof. On the west elevation was a wooden louvered door. The Substation was in a relatively good condition, and there appeared to be no gaps or crevices suitable for bats to roost.

Photo 14: Substation

No evidence of bats was seen.

Given the lack of opportunities for bats, the Substation had **negligible** roosting suitability.

Trees

The trees within the site were all immature or semi-mature. Some had small crevices or holes in the trunk. However none of the trees on the site had features of sufficient size to support roosting bats. All the trees had **negligible** bat roost suitability.

Health centre site

Health centre (B5)

The only building within the site, this was a brick built structure with a pitched cement-tiled roof. The tiles were well fitted throughout and the walls were in good condition with no obvious crevices. Around the eaves of most of the roof ran UPVC soffit boxes which had no gaps between the roof and wall for bats to access and roost. Lead flashing joined some sections of the roof to the wall. On the north side of the building there was one section which was slightly loose providing potential access for bats; this area of the building had **low** bat roost suitability, other than this the remainder of the building had **negligible** bat roost suitability.

Trees

The trees around the heath centre site were immature or semi mature, with no features of value for roosting bats. They had **negligible** bat roost suitability.

Foraging and commuting

The landscaped habitats on the site (woodland, hedgerows, grassland and shrub) may support the invertebrates on which bats feed. The site also forms part of the green network of gardens and small parks which join up the larger green spaces around Northwood. Therefore bats may commute through on their way between feeding areas or between foraging sites and their roosts. Much of the area is lit, or affected by glow from streetlamps, and the road to the south provides a partial barrier to the movement of bats. The site therefore is of low value for foraging and commuting bats.

3.3.4 Badgers

Desk study

No records of badgers were returned from within 2 km of the sites.

Field survey

The sites provided suitable habitat for badgers, with woodland and some of the shrubs providing cover for them to build their setts. The amenity grassland was likely to provide a source of worms and other badger prey. During the survey no evidence of badgers was noted, which would include sett entrances, foraging 'snuffle' holes, latrines or badger hairs. All areas of the site were accessible, and all areas of suitable habitat (i.e. not hard standing or buildings) within 50 m of the site, were visible from the boundary. The site is therefore unlikely to be used by badgers.

3.3.5 Other species

Nesting birds

Desk study

Sixty-two species of bird have been recorded within 2 km of the sites. Many of these are approximately 1- 2 km to the south-west which means they are likely to be associated with Ruislip Lido or the woodlands nearby. However there are several species which could utilise each site including house sparrow, herring gull, starling and song thrush; all four of these species are on the red list of Birds of Conservation Concern (Eaton *et al.* 2015).

Field survey

No birds were noted nesting during the survey, however it was late in the season and their young may have already fledged. The site offers a variety of nesting possibilities, both natural and man-made. These include some of the more mature trees which have many branches making up a network of support for nests, and the flat roofed sections of the hospital building and health centre which provide a platform away from predators.

Invertebrates

Desk study

Forty three species of invertebrates have been recorded within 2 km of the sites, of these only stag beetle was found within 1 km.

Field survey

The habitats on the sites provided a variety of climates which could support common and widespread species. Given the woodland in the east of Northwood and Pinner Hospital is not regularly managed and holds some dead an decaying wood, it is likely that some species which feed or build their homes in deadwood, such as stag beetles will be found here.

Other mammals

Desk study

No other records of mammals were found within 2 km of the sites.

Field survey

The sites (especially woodland) held habitat which was suitable for hedghogs to feed and find dwellings in. The boundaries are relatively open to this species so it is likely individuals could migrate to or from the sites.

3.4 Invasive species

Wall cotoneaster and butterfly bush were found within the introduced shrubs (Target Note 1, Figure 1). Both of these are invasive species in London, and cotoneaster is listed on schedule 9 of the W&CA.

3.5 Importance of Ecological Features

In line with the CIEEM PEA Guidelines, and based on the above baseline information, each ecological feature recorded within the study area is considered to have the following importance, as defined within the CIEEM EcIA Guidelines (2016):

Table 4 Importance of Ecological Features

Feature	Importance	Rationale
Ruislip Woods SSSI and NNR	National	Statutory sites designated at the national level
Metropolitan grade SINC	County	Non-statutory designated sites of metropolitan (Greater London) importance
Borough/local grade SINC	local	Non-statutory designated sites of borough or parish importance
All habitats	Site level	Habitats are relatively common in the local area
Bats	Unknown; likely local	Further night-time surveys required; roost of low numbers of non-breeding bats found
Nesting birds	Site level	Loss of the site will affect birds, but other similar habitats are available in the local area

Feature	Importance	Rationale
Reptiles	Unknown, likely local	If reptiles are found on site, they are likely to be small numbers of common species.
Either: International (incl. European) / National / Regional / County / Local / Site level **Or:** Unknown (i.e. further surveys/information needed)		

The potential for the proposals to have adverse or beneficial impacts on these features, along with the need for any mitigation or enhancement measures are discussed in detail below.

4.0 Relevant Planning Policy & Legislation

4.1 National Planning Policy Framework

The NPPF was adopted in March 2012. Section 11 of the NPPF, Conserving and Enhancing the Natural Environment replaces Planning Policy Statement 9 (PPS9): Biodiversity and Geological Conservation. However, government Circular 06/2005, Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System, which relates to PPS9 remains valid and is referenced within Paragraph 113 of the NPPF.

Circular 06/2005 states that the presence of protected species is a material consideration in the planning process. The NPPF also states that '*planning policies should promote the protection of priority species populations linked to national and local targets*'.

Furthermore, central and local government policy now points towards ecological enhancement on development sites. The NPPF considers enhancement in the statement '*The planning system should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes….and minimising impacts on biodiversity and providing net gains in biodiversity*'.

4.2 Biodiversity 2020: A strategy for England's wildlife & ecosystem services

Biodiversity 2020 replaces the previous UK Biodiversity Action Plan and sets national targets to be achieved. The intent of Biodiversity 2020, however, is much broader than the protection and enhancement of less common species, and is meant to embrace the wider countryside as a whole.

The priority species and habitats considered under Biodiversity 2020 are the SPI & HPI detailed under NERC Act (see Appendix A for further details).

4.3 Local Biodiversity Action Plan

Local Biodiversity Action Plans (LBAPs) identify habitat and species conservation priorities at a local level (typically County by County) and are usually drawn up by a consortium of local Government organisations and conservation charities. Although they are no-longer managed at a national level many are still reviewed and updated at a local level.

The London LBAP is the relevant document for this site and it contains the following Habitat & Species Action Plans:

Table 5 LBAP SAPs

Species Action Plans	
Bats	Mistletoe
Black poplar	Stag beetle
Reptiles	Sand martin

Species Action Plans	
House sparrow	Water Vole

Table 6 LBAP HAPs

Habitats Action Plans	
Acid grassland	Wasteland
Chalk grassland	Rivers and streams
Heathland	Reedbed
Private gardens	Woodland
Parks and urban green spaces	Standing water
Tidal Thames	

It should be noted that the existence of a SAP or HAP does not always infer an elevated level importance for those features. These plans may be designed to encourage an increase in these habitats/species, rather than to protect a county-scarce feature (for example).

4.4 Local Plan

Northwood and Pinner Hospital and Northwood Health Centre lie within the London Borough of Hillingdon ('the borough') and as such are subject to the London Plan as well as the borough's Unitary Development Plan (UDP) and Local Plan.

The London Plan (updated 2016) contains several policies relevant to biodiversity. Of particular note, Policy 7.19 states: Development Proposals should wherever possible, make a positive contribution to the protection, enhancement, creation and management of biodiversity and prioritise assisting in achieving targets in biodiversity action plans (BAPs).

Within the borough's UDP (adopted 1998, with policies saved in 2007), Section 1 includes *Ecology and Nature Conservation.* Within that section, policy EC1 states:

The local planning authority will not permit development which would adversely affect the integrity of Sites of Special Scientific Interest, or be unacceptably detrimental to Sites of Metropolitan or Borough (Grade I) Importance for Nature Conservation, designated Local Nature Reserves and other nature reserves. If development is proposed on or in the near vicinity of such sites, applicants must submit an ecological assessment where considered appropriate by the local planning authority to demonstrate that the proposed development will not have unacceptable ecological effects.

Policy EC2 goes on:

The local planning authority will promote nature conservation as a positive land use and will take nature conservation interests into account in considering proposals for development of land. Finally EC5 states:

In determining planning applications the local planning authority may require certain on-site ecological features to be retained in new developments and seek to enhance the nature conservation and ecological interest of sites or create new habitats.

The borough's Local Plan Part 1 was adopted in 2012 also makes provision for ecology in its policies. Policy EM4 covers *Open Space and Informal Recreation* and states:

The Council will safeguard, enhance and extend the network of open spaces, informal recreational and environmental opportunities that operate as carbon sinks and that meet local community needs and facilitate active lifestyles by providing spaces within walking distance of homes. Provision should be made as close as possible to the community it will serve. There will be a presumption against any net loss of open space in the Borough.

Policy EM7 states:

…Hillingdon's biodiversity and geological conservation will be preserved and enhanced with particular attention given to:

- *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;* and
- *The provision of biodiversity improvements from all development, where feasible.*

4.5 Legislation

Full details of the UK legislation and offences which are relevant to the ecological receptors identified are included in Appendix A. However, based on the findings of our assessment, it is considered that the proposals will need to consider the following legal provisions:

- Disturbance or killing of an EPS
- Disturbance of nesting wild birds
- Disturbance or killing of reptiles
- Cause of permit the spread of an invasive species into the wild

5.0 Discussion

5.1 Designated Sites

Natura 2000 Sites

There are no Natura 2000 sites close by. The nearest is approximately 15 km from the sites, and there are no ecological or hydrological links between them. It is unlikely that this development will affect any Natura 2000 site.

Sites of Special Scientific Interest

The sites lie within a SSSI Impact Risk Zone on the MAGIC map. This means where a development is greater than no. 100 residential units, Natural England should be consulted. The space available on the site is limited (approximately 0.9 ha), therefore it is unlikely that such a high number of dwellings will be built.

It is likely that the sites are sufficiently distant from the SSSI (which is 0.96 km south west across a busy road) that there will be no direct impacts on it, and neither site shares significant ecological features with the SSSI. Assuming any housing development has less than 100 units it is unlikely there will be a significant effect on the SSSI.

Local Wildlife Sites

The designated sites are all sufficiently distant from the sites so to avoid direct impacts during works, and no ecological or hydrological pathways exist between the development sites and the designated site. This includes demolition of the existing buildings and construction of new structures on the sites. There is likely to be a slight increase in traffic during construction, but given that the area is already heavily built up, the main access routes are already busy. Therefore any increased impacts on designated sites near to the access routes is likely to be insignificant.

Following the construction of residential properties there will be an increase in the population and therefore visitors to the nearby green spaces. The nearest designated site is the Hog's Back Open Space to the north-east, and this is the most likely to be visited. The site description does not include reference to ground nesting birds or other animals vulnerable to disturbance by dogs. The habitats listed in the citation are not likely to be vulnerable to foot traffic. Therefore there is not expected to be a significant impact on species using the site.

To minimise the change in visitor pressure on the Hog's Back Open Space and other sites, and in line with the Local Plan policy EM4 it is recommended that public green space is included within the development design. This can be of value to people and animals, incorporating trees, wildflower grassland and waterbodies. The space should be large enough to exercise dogs and other pets and be attractive as an amenity ground to encourage people to use it over the local wildlife sites.

5.2 Habitats

The habitats on sites were locally common, and as such were of negligible value other than to the species they support. No further habitat or floral surveys are necessary.

5.3 Protected & Notable Species

Only species which could be found within the sites are detailed in this section. For justification of this see Section 3.3.

5.3.1 Reptiles

Mitigation

The development of the sites will result in the loss of all the habitats which are suitable for reptiles. It is feasible that they use the sites, therefore vegetation clearance could kill or injure reptiles. This would contravene the *Wildlife and Countryside Act 1981* (as amended). To avoid this we recommend that when vegetation is removed it is done in a way that is sensitive to reptiles.

Sensitive vegetation clearance should follow this method:

- Prior to site clearance, maintain grass at a low level (~150 mm) to avoid this becoming reptile-suitable habitat;

Under supervision of a suitably qualified ecologist:

- During vegetation clearance cut all vegetation (including shrubs) to approximately 150 mm during warm (10°C +) and dry weather.
- The vegetation should be left alone for one day - one week to allow reptiles to leave of their own accord;
- Log piles and other debris should be dismantled by hand;
- The vegetation should be re-cut, to ground level-50 mm; and
- After one day - one week the top layer of earth should be removed.

During site clearance and demolition, rubble piles and other debris should be taken off site, or compacted to avoid reptiles using these as refugia.

Enhancement

Development of the sites offers opportunity to improve the local area for reptiles. In line with the UDP and Local Plan policies it is recommend that the landscaping is designed with biodiversity, including reptiles, in mind. This will include growing medium-height herbaceous plants alongside areas of shorter vegetation to provide foraging and basking opportunities respectively. Where possible this vegetation should be along or joined to the boundary of the site so that reptiles have a green connection to land off-site. If there is sufficient land available, reptile refugia could be created from rubble, wood or other debris, which is covered with soil.

5.3.2 Bats

Hospital site

The old hospital buildings provided opportunities for bats to roost. As these buildings will be demolished to clear the site for development, if bats are roosting the works would contravene the Habitat Regulations and W&CA. Furthermore roosts were confirmed in 2015. To determine how the buildings are being used by bats to roost, and to design mitigation to avoid an offence occurring, further emergence and return surveys, as well as an internal assessment of the buildings where possible, are recommended.

An emergence and return to roost survey and internal assessment should be carried out following the guidance set out in the BCT guidelines (Collins 2016). For the hospital site (Main Building and North Annex only) the following survey effort is recommended:

- Two dusk emergence visits; and
- One dawn return to roost visit.

Health centre site

Part of the health centre building was found to have low bat roost suitability. In line with the BCT guidelines the following survey effort is recommended:

- One dusk emergence visit.

EPSL

The Main Building and North Annex were found to be confirmed roosts during the 2015 surveys. A licence will be required to demolish these structures, or carry out works which may modify them or disturb bats roosting inside. The licence will require details of mitigation for the loss of the roost(s). As small numbers of common species have been found, the mitigation options will be relatively flexible in terms of type and location. No development plan is available yet, however options could include installation of bat boxes in trees retained through the development and/or bat boxes in any new buildings (on or in walls and roofs). For a roost of the type found in 2015 Natural England are unlikely to require any post-mitigation monitoring.

5.3.3 Nesting birds

Mitigation

Where it is necessary to demolish buildings or fell trees there is a risk that birds' nests may be destroyed and/or their young killed. This would contravene the *Wildlife and Countryside Act 1981* (as amended). To help avoid this we recommend that any such works are carried out outside the bird nesting season (which runs March-September, inclusive). If this period cannot be avoided a check for nesting birds should be carried out. If active nests are found a buffer should be set up around these, within which no work can take place, until the young have fledged. The size of the buffer will vary dependent on the level of disturbance and the species of bird, but as a minimum it should be 5m.

Enhancement

Construction of new buildings allows for the inclusion of new and replacement nesting opportunities. In line with local and national planning policy (e.g. Hillingdon Local Plan Policy EM7), we recommend that bird nest boxes are installed on or in the new buildings, and/or on retained trees. These should include boxes which target London BAP species, or national Priority Species e.g. house sparrow, starling or song thrush.

5.3.4 Invertebrates

Mitigation

With the clearance of the woodland, there will be loss of deadwood habitat. This will reduce the populations of the species which rely on them, potentially including the SPI and local BAP species, stag beetle Where possible deadwood (including that from any trees cut down, should be retained and re-used in any development. It is likely animals will quickly re-populate from adjacent areas of woodland, which are not affected by the development.

5.3.5 Other mammals (hedgehogs)

Mitigation

Hedgehogs could be injured or killed when moving any wood or suitable rubble piles Hedgehogs are a SPI and local BAP species, so are of material consideration in the planning process. To avoid impacts upon them any of these structures should be checked before removal. Furthermore, where possible any new development on the sites should consider hedgehogs, by avoiding barriers such as fences where possible, and/or installing suitable access ways through them for hedgehogs to pass.

5.4 Invasive species

Two invasive species were found on the hospital site. One was wall cotoneaster which is listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended). It is illegal to allow this plant to spread in the wild. The second is butterfly bush, which has no legal restrictions covering it, but is listed by the London Invasive Species Initiative (LISI).

To avoid spreading these species it is recommended that where they are to be removed, that they should be sprayed to kill them beforehand. If this is not possible, all the plant material should be chipped after removal.

6.0 Summary & Recommendations

6.1 Designated Sites

It is unlikely there will be significant effects on the designated sites in the local area. To avoid an increase in visitor pressure, public green space(s) should be built into the new development of sufficient size to allow for recreational activities.

6.2 Habitats

No habitats of significant value were found within the site boundaries.

6.3 Protected & Notable Species

- Reptiles: manage vegetation to prevent it becoming more suitable for reptiles, undertake precautionary clearance;
- Reptiles: Include suitable habitats including refugia, where possible within the new development;
- Bats: Carry out emergence and return to roost surveys to update the baseline information;
- Bats: Apply for EPSL for works which may impact bats;
- Bats: Include bat boxes or similar as mitigation for any roosts lost;
- Birds: undertake vegetation clearance and building demolition outside the bird nesting season, or after a nesting bird check;
- Birds: Incorporate nest boxes into the new buildings;
- Invertebrates: Retain and re-use deadwood where possible;
- Hedgehogs: Check any wood/rubble piles before removal; and
- Invasive species: Take actions to avoid spreading these in the wild.

7.0 References

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FIGURES

Figure 1 – Site Location Plan
Figure 2 – Phase 1 Habitat Plan

Rev	Date	Notes
A	30/04/18	Initial map production

Legend

- Northwood and Pinner Hospital
- Northwood Health Centre

0 50 100 200 300 400 500 Metres

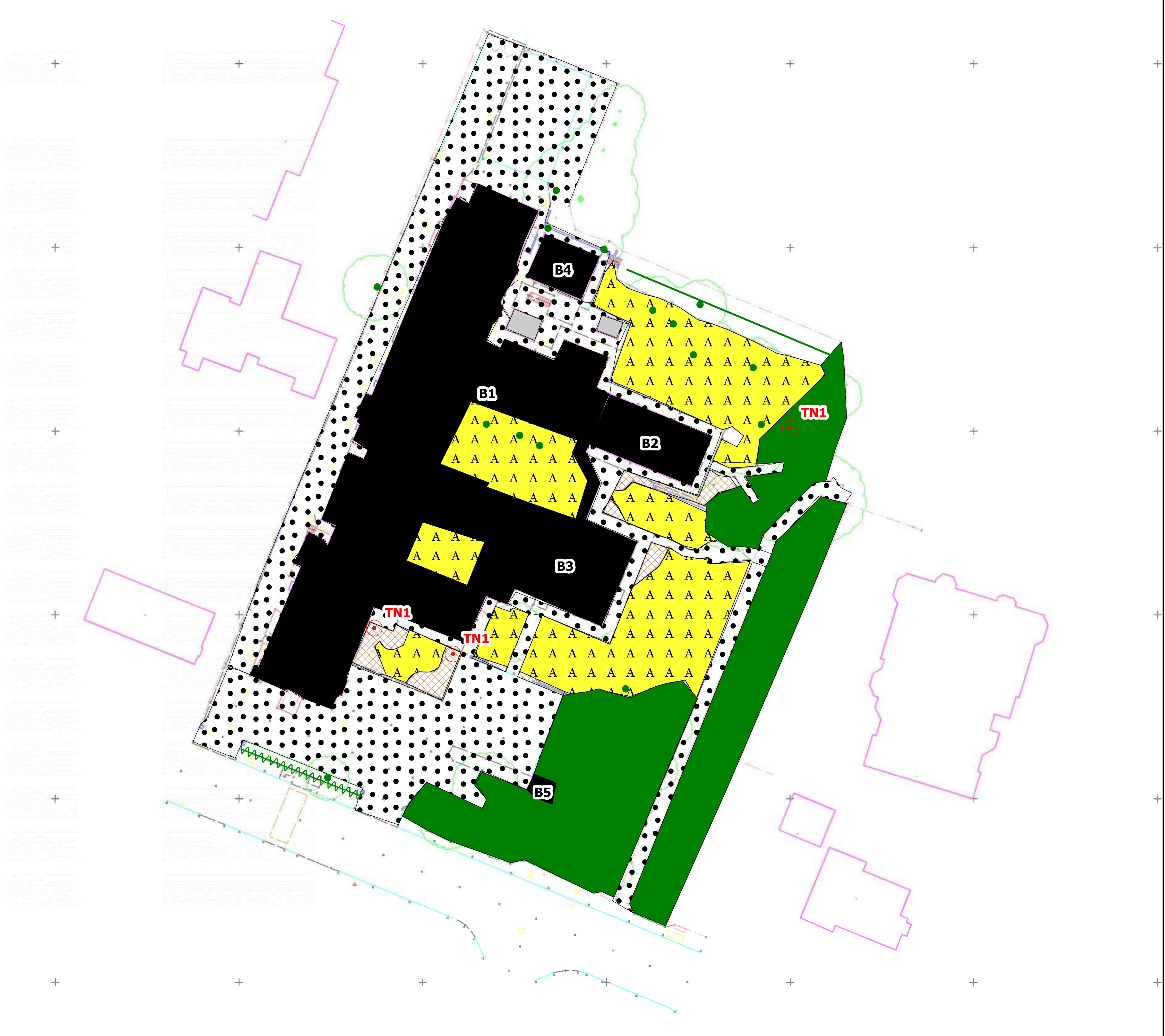
N

Site Location

Northwood and Piner Hospital and Northwood Health Centre
NHS Property Services

Scale at A3:	Project No:	Drawing No:	Revision:
1:10,000	A094148-2	Figure 1	A

Drawn by:	Drawn date:	Approved by:
Tim Bradford	30/04/2018	



Rev	Date	Notes
A	30/04/18	Initial map production

Legend

- Scattered tree
- Target note
- Species-rich hedgerow
- Species-poor hedgerow
- Broadleaved woodland
- Amenity grassland
- Introduced shrub
- Building
- Hard standing
- Damaged shed (no bat roost potential)

0 2.5 5 10 15 20 25 m

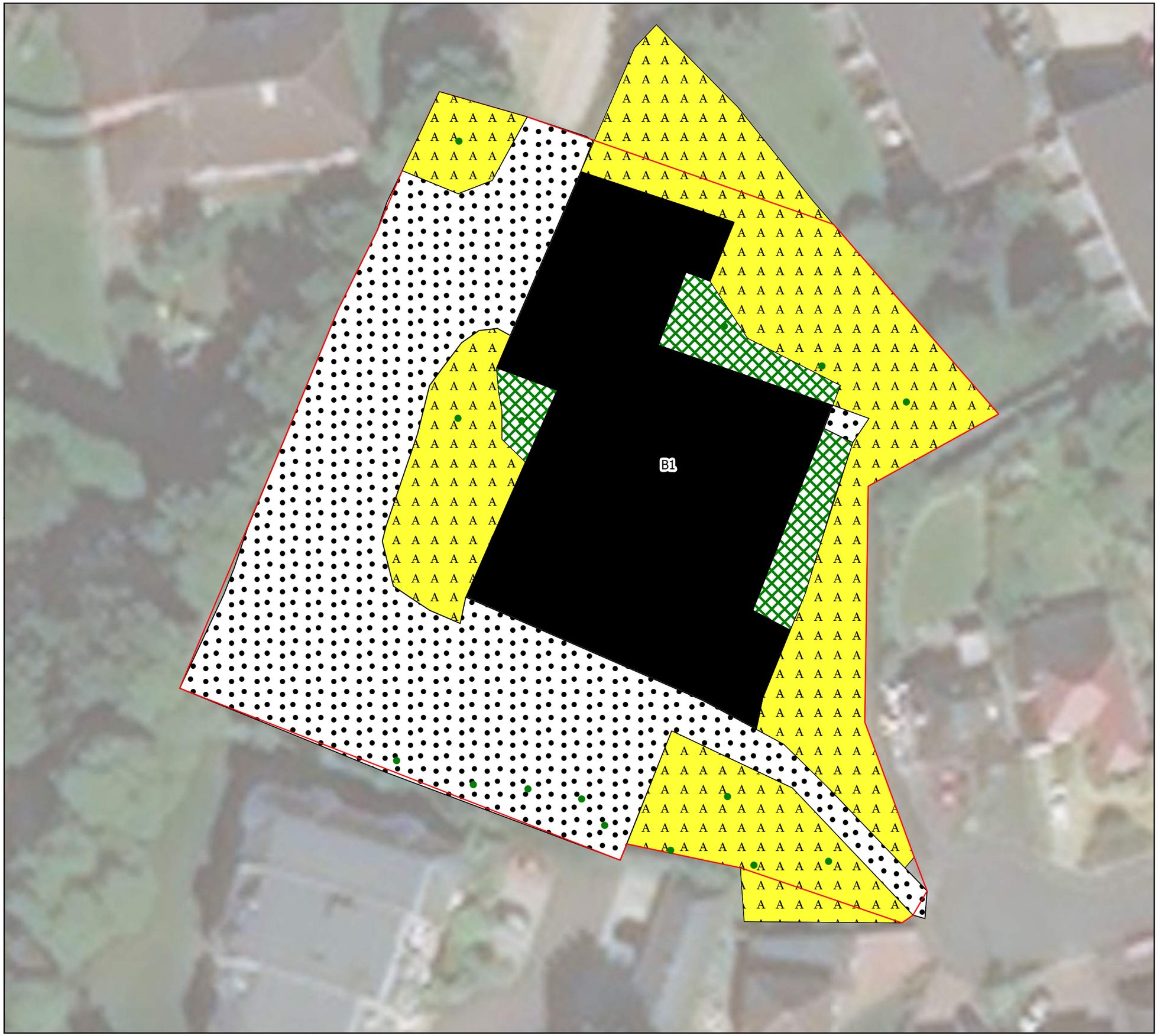
N

Phase 1 Habitat Plan

Northwood and Pinner Hospital
NHS Property Services

Scale at A3:	Project No:	Drawing No:	Revision:
1:500	A094148-2	Figure 2a	A

Drawn by:	Drawn date:	Approved by:
Tim Bradford	30/04/2018	



Rev	Date	Notes
A	04/04/18	Initial map production

Legend

- Boundary
- Introduced shrub
- Amenity grassland
- Building
- Hard standing
- Scattered tree

N

0 2.5 5 10 15 20 25 m

Phase 1 Habitat Map

Northwood Health Centre
NHS Property Services

Scale at A3:	Project No:	Drawing No:	Revision:
1:350	A094148-2	Figure 2b	A

Drawn by:	Drawn date:	Approved by:
Tim Bradford	04/04/2018	

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Appendix A – Wildlife Legislation

Bern Convention

The *Convention on the Conservation of European Wildlife and Natural Habitats* (the *Bern Convention*) was adopted in Bern, Switzerland in 1979, and was ratified in 1982. Its aims are to protect wild plants and animals and their habitats listed in Appendices 1 and 2 of the of the Convention, and regulate the exploitation of speices listed in Appendix 3. The regulation imposes legal obligations on participating countires to protect over 500 plant species and more than 1000 animals.

To meet its obligations imposed by the Convention, the European Community adopted the *EC Birds Directive* (1979) and the *EC Habitats Directive* (1992 – see below). Since the Lisbon Treaty, in force since 1st December 2009, European legislation has been adopted by the European Union.

Bonn Convention

The Convention on the Conservation of Migratory Species of Wild Animals or 'Bonn Convention' was adopted in Bonn, Germany in 1979 and came into force in 1985. Participating states agree to work together to preserve migratory species and their habitats by providing strict protection to species listed in Appendix I of the Convention. It also establishes agreements for the conservation and management of migratory species listed in Appendix II.

In the UK, the requirements of the convention are implemented via the Wildlife & Countryside Act 1981 (as amended), Wildlife (Northern Ireland) Order 1985 (as amended), Nature Conservation and Amenity Lands (Northern Ireland) Order 1985 and the Countryside and Rights of Way Act 2000 (CRoW).

Habitats Directive

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Fora, or the 'Habitats Directive', is a European Union directive adopted in 1992 in response to the Bern Convention. Its aims are to protect approximately 220 habitats and 1,000 species listed in its several Annexes.

In the UK, the Habitats Directive is transposed into national law via the Conservation of Habitats and Species Regulations 2010 (as amended) in England and Wales, and via the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland.

Birds Directive

The EC Directive on the Conservation of Wild Birds (791409/EEC) or 'Birds Directive' was introduced to achieve favourable conservation status of all wild bird species across their distribution range. In this context, the most important provision is the identification and classification of Special Protection Areas (SPAs) for rare or vulnerable species listed in Annex 1 of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance.

Conservation of Habitats and Species Regulations 2010 (as amended)	
Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I or II of the Habitats Directive respectively) to the European Commission. These sites, if ratified by the European Commission, are then designated as Special Protection Areas (SPAs) within six years. Amendments made in 2012 stipulated that public bodies help preserve, maintain and re-establish habitats for wild birds. The Regulations also make it an offence to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2, or pick, uproot, destroy, or trade in the plants listed in Schedule 5 - see below:	
Schedule 2 – European Protected Species of Animals	**Schedule 5 – European Protected Species of Plants**
Horseshoe bats *Rhinolophidae* - all species	Shore dock *Rumex rupestris*
Common bats *Vespertilionidae* - all species	Killarney fern *Trichomanes speciosum*
Wild cat *Felis silvestris*	Early gentian *Gentianella anglica*
Dolphins, porpoises and whales *Cetacea* – all sp.	Lady's-slipper *Cypripedium calceolus*
Dormouse *Muscardinus avellanarius*	Creeping marshwort *Apium repens*
Pool frog *Rana lessonae*	Slender naiad *Najas flexilis*
Sand lizard *Lacerta agilis*	Fen orchid *Liparis loeselii*
Fisher's estuarine moth *Gortyna borelii lunata*	Floating-leaved water plantain *Luronium natans*
Great crested newt *Triturus cristatus*	Yellow marsh saxifrage *Saxifraga hirculus*
Otter *Lutra lutra*	
Lesser whirlpool ram's-horn snail *Anisus vorticulus*	
Smooth snake *Coronella austriaca*	
Sturgeon *Acipenser sturio*	
Natterjack toad *Epidalea calamita*	
Marine turtles *Caretta caretta, Chelonia mydas, Lepidochelys kempii, Eretmochelys imbricata, Dermochelys coriacea*	
Wildlife & Countryside Act 1981 (as amended)	
This is the principal mechanism for the legislative protection of wildlife in the UK. This legislation is the chief means by which the 'Bern Convention' and the Birds Directive are implemented in the UK. Since it was first introduced, the Act has been amended several times. The Act makes it an offence to (with exception to species listed in Schedule 2) intentionally:	

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use; or
- take or destroy an egg of any wild bird.

Or to intentionally do the following to a wild bird listed in Schedule 1:

- disturbs any wild bird while it is building a nest or is in, on or near a nest containing eggs or young; or
- disturbs dependent young of such a bird.

In addition, the Act makes it an offence (subject to exceptions) to:

- intentionally or recklessly kill, injure or take any wild animal listed on Schedule 5;
- interfere with places used for shelter or protection, or intentionally disturbing animals occupying such places; and
- The Act also prohibits certain methods of killing, injuring, or taking wild animals.

Finally, the Act also makes it an offence (subject to exceptions) to:

- intentionally pick, uproot or destroy any wild plant listed in Schedule 8, or any seed or spore attached to any such wild plant;
- unless an authorised person, intentionally uproot any wild plant not included in Schedule 8; or
- sell, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Following all amendments to the Act, Schedule 5 'Animals which are Protected' contains a total of 154 species of animal, including several mammals, reptiles, amphibians, fish and invertebrates. Schedule 8 'Plants which are Protected' of the Act, contains 185 species, including higher plants, bryophytes and fungi and lichens. A comprehensive and up-to-date list of these species can be obtained from the JNCC website.

Part 14 of the Act makes unlawful to plant or otherwise case to grow in the wild any plant which is listed in Part II of Schedule 9.

It is recommended that plant material of these species is disposed of as bio-hazardous waste, and these plants should not be used in planting schemes.

Schedule 1 - Birds which are protected by special penalties			
Avocet	*Recurvirostra avosetta*	Osprey	*Pandion haliaetus*
Bee-eater	*Merops apiaster*	Owl, Barn	*Tyto alba*
Bittern	*Botaurus stellaris*	Owl, Snowy	*Nyctea scandiaca*
Bittern, Little	*Ixobrychus minutus*	Peregrine	*Falco peregrinus*
Bluethroat	*Luscinia svecica*	Petrel, Leach's	*Oceanodroma leucorhoa*
Brambling	*Fringilla montifringilla*	Phalarope, Red-necked	*Phalaropus lobatus*

Bunting, Cirl	*Emberiza cirlus*	Plover, Kentish	*Charadrius alexandrinus*
Bunting, Lapland	*Calcarius lapponicus*	Plover, Little Ringed	*Charadrius dubius*
Bunting, Snow	*Plectrophenax nivalis*	Quail, Common	*Coturnix coturnix*
Buzzard, Honey	*Pernis apivorus*	Redstart, Black	*Phoenicurus ochruros*
Capercaillie	*Tetrao urogallus*	Redwing	*Turdus iliacus*
Chough	*Pyrrhocorax pyrrhocorax*	Rosefinch, Scarlet	*Carpodacus erythrinus*
Corncrake	*Crex crex*	Ruff	*Philomachus pugnax*
Crake, Spotted	*Porzana porzana*	Sandpiper, Green	*Tringa ochropus*
Crossbills (all species)	*Loxia*	Sandpiper, Purple	*Calidris maritima*
Curlew, Stone	*Burhinus oedicnemus*	Sandpiper, Wood	*Tringa glareola*
Divers (all species)	*Gavia*	Scaup	*Aythya marila*
Dotterel	*Charadrius morinellus*	Scoter, Common	*Melanitta nigra*
Duck, Long-tailed	*Clangula hyemalis*	Scoter, Velvet	*Melanitta fusca*
Eagle, Golden	*Aquila chrysaetos*	Serin	*Serinus serinus*
Eagle, White-tailed	*Haliaetus albicilla*	Shorelark	*Eremophila alpestris*
Falcon, Gyr	*Falco rusticolus*	Shrike, Red-backed	*Lanius collurio*
Fieldfare	*Turdus pilaris*	Spoonbill	*Platalea leucorodia*
Firecrest	*Regulus ignicapillus*	Stilt, Black-winged	*Himantopus himantopus*
Garganey	*Anas querquedula*	Stint, Temminck's	*Calidris temminckii*
Godwit, Black-tailed	*Limosa limosa*	Swan, Bewick's	*Cygnus bewickii*
Goshawk	*Accipiter gentilis*	Swan, Whooper	*Cygnus cygnus*
Grebe, Black-necked	*Podiceps nigricollis*	Tern, Black	*Chlidonias niger*
Grebe, Slavonian	*Podiceps auritus*	Tern, Little	*Sterna albifrons*
Greenshank	*Tringa nebularia*	Tern, Roseate	*Sterna dougallii*
Gull, Little	*Larus minutus*	Tit, Bearded	*Panurus biarmicus*

Gull, Mediterranean	*Larus melanocephalus*	Tit, Crested	*Parus cristatus*
Harriers (all species)	*Circus*	Treecreeper, Short-toed	*Certhia brachydactyla*
Heron, Purple	*Ardea purpurea*	Warbler, Cetti's	*Cettia cetti*
Hobby	*Falco subbuteo*	Warbler, Dartford	*Sylvia undata*
Hoopoe	*Upupa epops*	Warbler, Marsh	*Acrocephalus palustris*
Kingfisher	*Alcedo atthis*	Warbler, Savi's	*Locustella luscinioides*
Kite, Red	*Milvus milvus*	Whimbrel	*Numenius phaeopus*
Merlin	*Falco columbarius*	Woodlark	*Lullula arborea*
Oriole, Golden	*Oriolus oriolus*	Wryneck	*Jynx torquilla*
Invasive plant species listed in Schedule 9			
Australian swamp stonecrop or New Zealand pygmyweed	*Crassula helmsii*	Japanese rose	*Rosa rugosa*
Californian red seaweed	*Pikea californica*	Japanese seaweed	*Sargassum muticum*
Curly waterweed	*Lagarosiphon major*	Laver seaweeds (except native species)	*Porphyra spp*
Duck potato	*Sagittaria latifolia*	Parrot's-feather	*Myriophyllum aquaticum*
Entire-leaved cotoneaster	*Cotoneaster integrifolius*	Perfoliate alexanders	*Smyrnium perfoliatum*
False Virginia creeper	*Parthenocissus inserta*	Pontic rhododendron	*Rhododendron ponticum*
Fanwort or Carolina water-shield	*Cabomba caroliniana*	Purple dewplant	*Disphyma crassifolium*
Few-flowered garlic	*Allium paradoxum*	Red algae	*Grateloupia luxurians*
Floating pennywort	*Hydrocotyle ranunculoides*	Rhododendron	*Rhododendron ponticum* × *Rhododendron maximum*
Floating water primrose	*Ludwigia peploides*	Small-leaved cotoneaster	*Cotoneaster microphyllus*

Giant hogweed	*Heracleum mantegazzianum*	Three-cornered garlic	*Allium triquetrum*
Giant kelp	*Macrocystis spp.*	Variegated yellow archangel	*Lamiastrum galeobdolon subsp. argentatum*
Giant knotweed	*Fallopia sachalinensis*	Virginia creeper	*Parthenocissus quinquefolia*
Giant rhubarb	*Gunnera tinctoria*	Wakame	*Undaria pinnatifida*
Giant salvinia	*Salvinia molesta*	Wall cotoneaster	*Cotoneaster horizontalis*
Green seafingers	*Codium fragile*	Water fern	*Azolla filiculoides*
Himalayan cotoneaster	*Cotoneaster simonsii*	Water hyacinth	*Eichhornia crassipes*
Hollyberry cotoneaster	*Cotoneaster bullatus*	Water lettuce	*Pistia stratiotes*
Hooked asparagus seaweed	*Asparagopsis armata*	Water primrose	*Ludwigia grandiflora*
Hottentot fig	*Carpobrotus edulis*	Water primrose	*Ludwigia uruguayensis*
Hybrid knotweed	*Fallopia japonica × Fallopia sachalinensis*	Waterweeds	*Elodea spp.*
Indian (Himalayan) balsam	*Impatiens glandulifera*	Yellow azalea	*Rhododendron luteum*
Japanese knotweed	*Fallopia japonica*		

Protection of Badgers Act 1992

The main legislation protecting badgers in England and Wales is the Protection of Badgers Act 1992 (the 1992 Act). Under the 1992 Act it is an offence to: wilfully kill, injure, take or attempt to kill, injure or take a badger; dig for a badger; interfere with a badger sett by, damaging a sett or any part thereof, destroying a sett, obstructing access to a sett, causing a dog to enter a sett or disturbing a badger while occupying a sett.

The 1992 Act defines a badger sett as: "any structure or place which displays signs indicating current use by a badger"

Natural Environment and Rural Communities Act 2006

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of Habitats and Species which are of Principal Importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 Habitats of Principal Importance and 1,150 Species of Principal Importance.

Hedgerow Regulations 1997

The Hedgerow Regulations were made under Section 97 of the Environment Act 1995 and came into force in 1997. They introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside, by controlling their removal through a system of notification. Important hedgerows are defined by complex assessment criteria, which draw on biodiversity features, historical context and the landscape value of the hedgerow.

Birds of Conservation Concern

This is a review of the status of all birds occurring regularly in the United Kingdom. It is regularly updated and is prepared by leading bird conservation organisations, including the British Trust for Ornithology (BTO), Joint Nature Conservation Committee (JNCC) and The Royal Society for the Protection of Birds (RSPB).

The latest report was produced in 2015 (Eaton *et al*, 2015) and identified 67 red list species, 96 amber species, and 81 green species. The criteria are complex, but generally:

- **Red list** species are those that have shown a decline of the breeding population, non-breeding population or breeding range of more than 50% in the last 25 years.
- **Amber list** species are those that have shown a decline of the breeding population, non-breeding population or breeding range of between 25% and 50% in the last 25 years. Species that have a UK breeding population of less than 300 or a non-breeding population of less than 900 individuals are also included, together with those whose 50% of the population is localised in 10 sites or fewer and those whose 20% of the European population is found in the UK.
- **Green list** species are all regularly occurring species that do not qualify under any of the red or amber criteria are green listed

Global IUCN Red List

The International Union for Conservation of Nature (IUCN) Threatened Species was devised to provide a list of those species that are most at risk of becoming extinct globally. It provides taxonomic, conservation status and distribution information about threatened taxa around the globe.

The system catalogues threatened species into groups of varying levels of threat, which are: Extinct (EX), Extinct in the Wild (EW), Critically Endangered (CE), Endangered (EN), Vulnerable (VU), Near Threatened (NT), Least Concern (LC), Data Deficient (DD), Not Evaluated (NE). Criteria for designation into each of the categories is complex, and consider several principles.

Local Biodiversity Action Plan (LBAP)
Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level), and are usually drawn up by a consortium of local Government organisations and conservation charities. Some LBAP's may also include Habitat Action Plans (HAP) and/or Species Action Plans (SAP), which are used to guide and inform the local decision making process.
Wild Mammals (Protection) Act 1996
This Act offers protects a form of protection to all wild species of mammals, irrespective of other legislation, and focussed on animal welfare, rather than conservation. Unless covered by one of the exceptions, a person is guilty of an offence if he mutilates, kicks, beats, nails or otherwise impales, stabs, burns, stones, crushes, drowns, drags or asphyxiates any wild mammal with intent to inflict unnecessary suffering. It's application is typically restricted to preventing deliberate harm to wildlife (in general) during construction works etc.

Appendix B – Desk Study Data