

## 7. Biodiversity: Baseline

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Airports Commission

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## Executive Summary

The Airports Commission is considering the case for, and best means of, providing additional airport capacity within the UK. In 2013 the Airport Commission received submissions on potential options for airport expansion for the UK. Following an assessment of these options three airport schemes were shortlisted to be taken and considered in more detail. These were:

- Gatwick Airport Second Runway (R2) promoted by Gatwick Airport Ltd (GAL);
- Heathrow Airport Northwest Runway (NWR) promoted by Heathrow Airport Ltd (HAL); and,
- Heathrow Airport Extended Northern Runway (ENR) promoted by Heathrow Hub Limited (HH).

In April 2014, an Appraisal Framework was published by the Airport Commission which identified the methodology that was to be used to further assess the three shortlisted schemes. This report has been prepared in accordance with the Appraisal Framework and identifies the baseline information for Biodiversity. The baseline has then been used to assess the environmental impacts of each of the shortlisted schemes. The assessment is contained in a separate report, Biodiversity Assessment (Jacobs, 2014a).

This baseline report details International, National and Local Designated sites, Records Centre data and Natural England Aviation Sensitivity Mapping. This report also considers likely drivers for change and trends within the existing baseline based on National Landscape Character areas. The potential biodiversity impacts from the three schemes will be appraised relative to this do minimum scenario.

The baseline data has been collected based on a series of search areas around the footprint of the three proposed airport:

**Table A: Baseline data study areas**

Designation / Baseline dataset	Study (buffer) area <sup>1</sup>
Special Areas of Conservation (SAC) which list bats as a qualifying feature	0-30km
International or national statutory sites	0-15km
Non-statutory sites, priority habitats and ancient woodland	0-5km
Protected species data	0-2km

<sup>1</sup> The buffer areas are calculated from the airport scheme footprint; this does not include the surface access improvement areas.

## **Gatwick Airport Second Runway**

### Statutory Sites

There are three sites of importance for biodiversity at International (European) level within 15km of the footprint of the Gatwick Airport Second Runway scheme, these are:

- Ashdown Forest Special Area of Conservation (SAC) 12km to the southeast;
- Ashdown Forest Special Protection Area (SPA), 12km to the southeast; and
- Mole Gap to Reigate Escarpment SAC, 10km to the north.

There are a further two SACs within 30km of the scheme, which are designated for important bat populations: The Mens SAC (25km southwest) and Ebernoe Common SAC (29km west).

There are 35 Sites of Special Scientific Interest (SSSIs) within 15km of the proposed scheme. There are four SSSIs within 5km, with Glover's Wood SSSI being the only one within 2km of the scheme boundary. This is currently identified as being in 100% *favourable condition* based on trend data on general site condition, as defined by Natural England.

There are four Local Nature Reserves (LNRs) within 5km of the scheme boundary, with two within 2km (Edolph's Copse LNR and Grattons Park LNR).

### Non-statutory sites

The Biological Records Centres have provided information on 46 non-statutory sites within 5km of the scheme boundary. All are Sites of Nature Conservation Importance (SNCIs). Three of these sites fall within the scheme footprint: Horleyland Wood SNCI, Rowley Wood SNCI and, Willoughby Fields SNCI.

## **Heathrow Airport Northwest Runway**

### Statutory Sites

There are eight sites of importance for biodiversity at International (European) level within 15km of the footprint of the proposed Heathrow Airport Northwest Runway scheme, these are:

- South West London Waterbodies SPA and Ramsar (two sites), on the boundary to the southeast;
- Windsor Forest and Great Park SAC, 6.2km to the west;
- Richmond Park, 7.5km to the east
- Burnham Beeches SAC, 10.2km to the northeast;
- Thursley, Ash, Pirbright and Chobham SAC, 10.8km southwest;
- Wimbledon Common SAC, 11.1km east; and
- Thames Basin Heaths SPA, 13.1km southwest.

The South West London Waterbodies SPA and Ramsar site is located on the boundary of the proposed scheme and this site supports internationally important numbers of the ducks gadwall and shoveler (the qualifying interest species of the SPA). There are no European designated sites within 15-30km of the airport boundary designated for important bat populations.

There are 34 SSSIs and four NNRs within 15km of the proposed scheme. There are seven SSSIs within 5km, with Wraysbury Reservoir SSSI and Staines Moor SSSI

being within 2km of the scheme boundary. The scheme promoter has identified that there is the potential for significant impacts to Staines Moor SSSI due to changes to the River Colne, on which the habitats depend. All SSSIs within the 5km buffer are in either *favourable* or *unfavourable recovering* status barring a small section (under 2%) of Staines Moor SSSI in unfavourable declining condition.

There are nine LNRs within 5km of the scheme boundary, with five within 2km (Cranebank LNR; Bedfont Lakes LNR; Hounslow Heath LNR; Arthur Jacobs Nature Reserve LNR; and, Pevensley Road LNR).

#### Non-statutory sites

The Local Biological Records Centres provided information on 80 non-statutory sites within 5km of the proposed scheme. All are designated for the county importance for wildlife although are allocated different designation names depending on the county that they are within. The breakdown is: 62 Sites of Importance for Nature Conservation (SINC); and, 18 Sites of Nature Conservation Importance (SNCI).

### **Heathrow Airport Extended Northern Runway**

#### Statutory Sites

There are eight sites of importance for biodiversity at International (European) level within 15km of the footprint of the proposed Heathrow Extended Northern Runway scheme, these are:

- South West London Waterbodies SPA and Ramsar (two sites), on the boundary to the south;
- Windsor Forest and Great Park SAC, 4.9km to the west;
- Richmond Park, 8.2km to the east
- Burnham Beeches SAC, 10.1km to the northeast;
- Thursley, Ash, Pirbright and Chobham SAC, 10.6km southwest;
- Wimbledon Common SAC, 11.9km east; and
- Thames Basin Heaths SPA, 14.5km southwest.

The South West London Waterbodies SPA and Ramsar site is located on the scheme boundary. This site supports internationally important numbers of the ducks gadwall and shoveler (the qualifying interest species of the SPA). There are no European designated sites within 15-30km of the airport boundary designated for important bat populations.

There are 39 SSSIs and four NNRs within 15km of the proposed scheme. There are eight SSSIs within 5km, the following four of which are within 2km of the proposed boundary: Wraysbury Reservoir SSSI; Wraysbury and Hythe End Gravel Pits SSSI; Wraysbury No 1 Gravel Pit SSSI; and Staines Moor SSSI. Staines Moor SSSI is within the footprint of the scheme. All SSSIs within the 5km buffer are in either *favourable* or *unfavourable recovering* status barring a small section (under 2%) of Staines Moor SSSI in unfavourable declining condition.

There are eight LNRs within 5km of the scheme boundary, with the following four within 2km: Cranebank LNR; Bedfont Lakes LNR; Hounslow Heath LNR; and, Arthur Jacobs Nature Reserve LNR.

There are eight LNRs within 5km of the scheme boundary, with the following four within 2km: Cranebank LNR; Bedfont Lakes LNR; Hounslow Heath LNR; and, Arthur Jacobs Nature Reserve LNR.

### Non-statutory sites

The Local Biological Records Centres provided information on 85 non-statutory sites within 5km of the proposed scheme. All are designated for their county importance for wildlife although these are allocated different designation names depending on the county that they are within. The breakdown is: five Local Wildlife Sites (LWS); 60 Sites of Importance for Nature Conservation (SINC); 18 Sites of Nature Conservation Importance (SNCI); and two Conservation Target Areas (CTA).

### **Evolution of the baseline**

It is assumed that for statutory internationally and nationally designated sites there would be no decline in their condition over time due to the protection they are afforded and it is assumed that measures to achieve favourable condition would have been completed and been successful. For non-statutory sites and wider habitats the main changes are likely to be associated with future development pressures.

### **Bird Strike**

Gatwick airport is located on the floodplain of the River Mole which skirts the airport to the north and a number of small balancing ponds exist that may attract ducks or geese in low numbers. The existing birdstrike sample is likely to consist of a mixture of common agricultural bird species (e.g. pigeons, corvids, starlings and gulls), plus the normal range of smaller birds such as skylark, hirundines, swift etc.

At Heathrow airport there are habitats close to the existing airport which support an assemblage of common bird species such as pigeons, corvids, starlings, kestrel and gulls, as well as smaller species such as hirundines, swift, finches and pipits etc. These species are typical of many airports in the UK, but where Heathrow differs is in the presence of several very large water supply reservoirs and the complex of flooded mineral extractions in the Thames and Colne valleys which lie to the south and west of the existing airport.

# 1 Introduction and Methodology

## 1.1 Introduction

The Airports Commission is considering the case for, and best means of, providing additional airport capacity within the UK. In 2013 the Airport Commission receive submissions on potential options for airport expansion for the UK. Following an assessment of these options three airport schemes were shortlisted to be taken and considered in more detail. These were:

- Gatwick Airport Second Runway (Gatwick 2R) promoted by Gatwick Airport Limited (GAL);
- Heathrow Airport Northwest Runway (Heathrow NWR) promoted by Heathrow Airport Limited (HAL); and,
- Heathrow Airport Extended Northern Runway (Heathrow ENR) promoted by Heathrow Hub Limited (HH).

In April 2014 an Appraisal Framework was published by the Airport Commission which identified the methodology that was to be used to further assess the three shortlisted schemes. This report has been prepared in accordance with the Appraisal Framework and identifies the baseline information for Biodiversity. The baseline has then been used to assess the environmental impacts of each runway development scheme. The assessment is contained in a separate report, Biodiversity Assessment (Jacobs, 2014a).

The structure of this baseline report is:

- Chapter 1 introduces the report and explains the methodology used including limitations and assumptions.
- Chapters 2 to 4 cover the relevant designations for each airport proposal.
- Chapter 5 of this report covers a baseline review of bird strike data for the UK.

## 1.2 Methodology

The biodiversity baseline has used a desk-based process to identify statutory and non-statutory designated sites around the three proposed airport expansion schemes. Statutory sites and Priority Habitats, as defined by the Natural Environment and Rural Communities (NERC) Act 2006 were identified using the interactive, publically accessible website Magic. Local biological record centres provided data on statutory non-designated sites and protected species within 5km and 2km of each site, respectively (see Table 1.2 for the list of local record centres). The Index of Ancient Woodland and Trees was used to identify areas of ancient woodland (Forestry Commission, 2014).

Internationally important sites include Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites. Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR) are designated for their value as nationally important sites for wildlife (and/or geology). International and nationally important sites have been included in the baseline review if they are within 15km of the airport boundary. This study area takes account of guidance on emissions impacts and bird



strike risk. Specifically, the Environment Agency's H1 Environmental Risk Assessment document<sup>2</sup> (Annex F – Air Emissions) (Environment Agency, 2009) states that conservation sites need only be considered where they fall within set distances of a proposed activity, with European sites being considered up to 10km from the installation. In the case of coal and oil-fired power stations, this distance buffer should be increased to 15km. Taking a precautionary approach, the distance buffer for scheme proposals has been taken as 15km to consider the potential impacts of aerial emissions on European sites.

This 15km distance buffer also takes into account the following Civil Aviation Authority (CAA) advice:

*The UK CAA interprets 'bird and birdstrike' to encompass all hazardous wildlife and wildlife strike references. The term 'in the vicinity' is generally accepted to mean land or water within 13km of the Aerodrome Reference Point (ARP) and 'garbage disposal dumps' refers to landfill sites (i.e. the disposal of putrescible waste by landfill) as defined under relevant UK legislation (CAA, 2008)*

In addition to the 15km search area, a guideline distance of 30km from the scheme footprint has been used to identify international sites designated for bats; this is based on the *Design Manual for Roads and Bridges*, (Highways Agency, 2009) guidance due to the mobility of these animals.

Non-statutory wildlife sites, Priority Habitats, Ancient Woodland and Local Nature Reserves (LNR) are designated for their importance for wildlife and people at a local community level. The baseline includes these locally important sites where they are within 5km of the proposed airport boundary.

All protected species data within 2km of each airport boundary has been gathered from relevant biological records centres. This is not intended to provide a comprehensive baseline of protected species presence but it gives an indication of the range of species and their distribution within the area. Given the quantity of this information, it has been included as an appendix to this report (Appendix A).

Aviation Sensitivity maps produced by Natural England (Land Use Consultants (LUC), 2014) form part of the baseline information which was then used to determine Natural England's assessment of potential effects on designated sites. This is reported in the Assessment of Biodiversity Impacts (Jacobs 2014a) and includes the relevant mapping.

The relevant National Character Areas (NCAs), as defined by Natural England, are included within the baseline assessment. Trends relating to landscape change and drivers behind these trends form part of this assessment for biodiversity and also for the landscape section within the Place Assessment, (Jacobs 2014b).

Changes to the baseline in the future have been considered in general terms rather than for individual sites or species. It is assumed that for internationally and nationally designated sites there would be no decline in their condition due to the protection they are afforded and it would be assumed that measures to achieve favourable condition would have been completed and be successful. For non-statutory sites and

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<sup>2</sup> Environment Agency (2009) H1 Environmental Risk Assessment – Overview

wider habitats, the main changes are likely to be associated with future development pressures.

In summary, the following buffers have been used when collecting the baseline data; within these buffers. The sites were identified, together with their reason for designation and an approximate distance from the scheme.

**Table 1.1: Baseline data study areas**

Designation / Baseline dataset	Study (buffer) area <sup>3</sup>
Special Areas of Conservation (SAC) which list bats as a qualifying feature	0-30km
International or national statutory sites	0-15km
Non-statutory sites, priority habitats and ancient woodland	0-5km
Protected species data	0-2km

### 1.3 Assumptions and Limitations

The biodiversity baseline is based on the outputs of desk-based studies and compilation of publically available information. Detailed assessment comprising ecological field surveys will be required during the consent process for the selected option, and is outside the scope of this appraisal.

The baseline study considers the ecological sites within a certain distance of the scheme boundary and is not based on a detailed assessment of impact pathways between potential sources and receptors. The study is based on a desk top review of publically available data. Jacobs has used a 15km search zone around the proposed airport site boundary outlines. The airport promoter's submissions use a 15km radius circle centred on the central Aerodrome Reference Point (ARP). The Surrey Biodiversity Information Centre information is based on buffers surrounding the existing airport boundaries.

This report does not include any ecological information from the Buckinghamshire and Milton Keynes Environmental Records Centre<sup>4</sup>.

An absence of a species record within an area does not necessarily reflect an absence of that species from the same area. Similarly, the distribution of species records may reflect survey effort rather than an accurate distribution of that species. As such, historic records should be assessed with caution.

To avoid duplication within the annexes to this report each species that has been recorded within the study area is listed once even if there are multiple records for each respective species.

The NCAs have been identified where each of the proposed schemes are situated. However, the potential impacts from the scheme proposals may extend beyond those NCAs into adjacent areas.

<sup>3</sup> The buffer areas are calculated from the airport development footprint but not including the surface access improvement areas.

<sup>4</sup> Information requested but not yet provided

## 1.4 Context

### 1.4.1 Statutory Sites

Statutory wildlife sites are those designated under UK legislation and regulated by the statutory nature conservation organisations; in England this being Natural England. Table 1.2 illustrates the legislation that applies to each site.

**Table 1.2. Summary of legislation relevant to designated sites**

Relevant legislation	Site name
Conservation of Habitats and Species Act 2010 (as amended)	Special Areas of Conservation (SAC)
	Special Protection Areas (SPA)
	Ramsar sites
Wildlife and Countryside Act 1981, as amended by the CRoW Act 2000	Sites of Special Scientific Interest (SSSI)
	National Nature Reserves (NNR)
National Parks and Access to the Countryside Act 1949, as amended by the NERC Act 2006	Local Nature Reserves (LNR)
Local Planning System / National Planning Policy Framework 2012	Local Wildlife Sites (LWS)
	Sites of Importance for Nature Conservation (SINC)
	Sites of Nature Conservation Importance (SNCI)
	County Wildlife Sites (CWS)
	Wildlife and Heritage Sites (WHS)
	Priority Habitats
	Ancient semi-natural woodland

The Conservation of Habitats and Species Regulations 2010 (as amended) are the principal means by which the European Habitats Directive 92/43/EEC is transposed in England and Wales; it consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive) in Great Britain. The Regulations provide for the designation and protection of European sites, termed the Natura 2000 network. SPAs and SACs are covered by this legislation. Ramsar sites are wetlands of international importance, designated under the Ramsar Convention. As a matter of policy within England, Ramsar sites are protected as part of the Natura 2000 network.

The Wildlife and Countryside Act 1981 (as amended) is the principal piece of UK legislation relating to the protection of wildlife. SSSIs and NNRs are designated under this Act, which is further strengthened by the Countryside and Rights of Way (CRoW) Act 2000.

LNRs are designated under the National Parks and Access to the Countryside Act 1949, as amended by the Natural Environment and Rural Communities (NERC) Act 2006. These are areas of land designated by the local authority because of their local special natural interest and educational/community value.

### 1.4.2 Non-statutory Sites

Non-statutory wildlife sites are those which are locally important for nature conservation and that complement nationally and internationally designated wildlife sites. There are a number of different terms used to describe these sites including: Local Wildlife Sites; Sites of Importance for Nature Conservation (SINCs); Sites of Nature Conservation Importance (SNICIs); County Wildlife Sites; and Wildlife and Heritage Sites.

As well as statutory sites, these non-statutory sites are afforded protection through the Local Planning system (National Planning Policy Framework, 2009) and Biodiversity and Geological Conservation circular 06/2005, which emphasises their importance within the Local Development Framework.

Information on non-statutory sites is held by the local planning authority and local biological records centres. Information requests were sent to the appropriate record centres for each scheme. Requests were made for non-statutory designated sites within 5km of the proposed airport footprints. The records centres data obtained is summarised in Table 1.3.

**Table 1.3 - Summary of Record Centre Data**

Gatwick Airport	Heathrow Airport
Surrey Biodiversity Information Centre (SBIC, 2014a)	Thames Valley Environmental Records Centre (TVERC, 2014 a-c)
Sussex Biodiversity Records Centre (SXBRC, 2014a and 2014b)	Greenspace Information for Greater London (GiGL, 2014a and 2014b),
	Surrey Biodiversity Information Centre (SBIC, 2014)

### 1.4.3 Priority Habitats

The NERC Act 2006 was proposed to help create a diverse natural environment and thriving rural communities, achieving this by streamlining arrangements for delivering Government policy. Section 40 of the Act places a duty on public bodies and statutory undertakers to ensure due regard to the conservation of biodiversity. Section 41 requires the Secretary of State to publish a list of the living organisms and types of habitat which, in their opinion, are of principal importance for the purpose of conserving biodiversity. There are currently 56 habitats listed in Section 41 as being of principal importance within England, which are consequently regarded as conservation priorities in the UK Post-2010 Biodiversity Framework<sup>5</sup> (JNCC and DEFRA, 2012).

### 1.4.4 Ancient and Semi-natural Woodland

Ancient semi-natural woodland is land that has had a continuous woodland cover since at least 1600 AD (Natural England, 2014). This includes woodland which has been retained and managed for its native tree and shrub cover, as well as plantations on ancient woodland sites. The latter occurring where the original tree and shrub

<sup>5</sup> The purpose of this UK Post 2010 Biodiversity Framework is to set a broad enabling structure for action across the UK between now and 2020: it reflects an updated approach since the 2007 Conserving Biodiversity and takes into account the 'Aichi targets' from the October 2010 meeting with 192 governments and the European Union in Nagoya, Aichi Province, Japan,

cover has been lost and replanted; often with coniferous plantation created over the last century.

Ancient and semi-natural woodland is protected through the National Planning Policy Framework (2012). Its importance as an irreplaceable habitat is described within paragraph 118 which states:

*‘planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss’.*

#### **1.4.5 National Character Areas**

Across England, 159 distinct National Character Areas (NCAs) have been identified that are informed by the landscape, biodiversity, geodiversity and cultural/economic activity of the area. One of the aims of these NCAs is to offer decision makers an environmental frame of reference for their work by providing information such as descriptions of the ecosystem services provided in each character area along with their benefits to people, wildlife and the economy. Their boundaries follow natural lines in the landscape rather than administrative boundaries.

NCAs and local landscape documents are used in the preparation and analysis of Environmental Impact Assessments (EIA) and by local authorities to decide whether proposed development is appropriate in the context of the surrounding landscape.

## 2 Gatwick Airport Second Runway

### 2.1 Designated Statutory Sites

Table 2.1 lists the designated sites within the relevant buffer areas to the airport boundary. Figure 1 (see accompanying Biodiversity Figures Report) shows the position of each designated site in relation to the Gatwick 2R. There are three sites of importance to biodiversity at International (European) level within 15km of the scheme, these being Ashdown Forest SAC and SPA, 12km to the southeast, and Mole Gap to Reigate Escarpment SAC, 10km to the north. There are a further two SACs within 30km of the scheme which are designated for important bat populations: The Mens SAC (25km southwest) and Ebernoe Common SAC (29km west).

There are 35 SSSIs within 15km of the proposed scheme. There are four SSSIs within 5km, with Glover's Wood SSSI being the only one within 2km of the scheme boundary. This SSSI is currently identified as being in 100% *favourable condition* based on trend data on general site condition, as defined by Natural England and is identified by GAL as a potential site for mitigation and biodiversity enhancements based on its proximity and existing relationships with stakeholders.

There are five Local Nature Reserves (LNRs) within 5km of the scheme boundary, with three within 2km (Edolph's Copse LNR and Grattons Park LNR) and Willoughby Fields LNR which is within the footprint of the scheme<sup>6</sup>.

### 2.2 Non-statutory Designated Sites

The Local Biological Records Centre has provided information on 46 non-statutory sites (all SNCIs) within 5km of the scheme boundary; these are listed within Table 2.2. Three of these sites fall within the scheme footprint, these being: Horleyland Wood SNCI, Rowley Wood SNCI, and Willoughby Fields SNCI.

Biodiversity Figures 2 and 3 show the location of the above sites in relation to Gatwick 2R.

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<sup>6</sup> Willoughby Fields Site of Nature Conservation Importance (SNCI) was also designated as a Local Nature Reserve (LNR) in 2012.  
[http://www.crawley.gov.uk/pw/Leisure\\_and\\_Culture/Open\\_Spaces/Conservation/INT010153](http://www.crawley.gov.uk/pw/Leisure_and_Culture/Open_Spaces/Conservation/INT010153)

**Table 2.1 - Gatwick 2R: Baseline search of statutory designated sites**

Site	Designation ((G) = Designated for geological importance)	Distance (km) and bearing from scheme	Reason for designation from citations
<b>Sites within 0-2km of proposed works</b>			
Grattons Park	LNR	1.1km south	Primarily broadleaved woodland areas with streams and meadows.
Glovers Wood	SSSI	1.5km west	A large area of semi-natural broadleaved woodland on neutral to slightly acidic clays which support a very rich ground flora.
Edolph's Copse	LNR	1.8km west	Large area of woodland managed by the Woodland Trust. The wood is well connected to other neighbouring habitats via mature hedgerows and a stream
Willoughby Fields	LNR (also an SNCI)	Within footprint South	A large site containing several unimproved grassland fields with a network of hedgerows, area of scrub and small copses. It lies beneath the River Mole and an un-named stream on the outskirts of Langley Green in Crawley. The site is well used by the public for informal recreation and it adjoins a rugby club. A considerable amount of tree and hedge planting has been carried out on this site.
<b>Sites within 2-5km of proposed works</b>			
House Copse	SSSI	3.1km south-west	Small isolated woodland shown in the first edition of the Ordnance Survey maps in 1816. Much of the cover has remained unchanged since then and this type of ancient woodland cover is almost unknown elsewhere in southern England.
Target Hill Park	LNR	3.7km south	A former refuse tip consisting of a large area of grassland, scrub and birch woodland. The steep east and west slopes and terraced north slope are covered in developing scrub and young woodland. This site is managed as a LNR with the assistance of the Gatwick Greenspace Partnership.
Buchan Hill Ponds	SSSI	3.7km south	Three large ponds that are the best example in west Sussex of Wealden hammer ponds on acid Tunbridge Wells Sand. Nationally uncommon woodland types occupy the wetlands around the ponds. The site also supports a rich diversity of dragonfly species.
Tilgate Forest	LNR	3.8km south	Habitats include broadleaved woodland, coniferous woodland, lowland heathland and tall herb and fern habitats. There are a few small ponds which attract many dragonflies and damselflies.
Hedgecourt	SSSI	4.3km east	The most important wetland site remaining in south-east Surrey. The site incorporates a range of habitats including woodland, grassland, fen and open water. The habitats present support a wide variety of animal life including several locally distributed beetles and a large breeding bird fauna.
<b>Sites within 5-15km of proposed works</b>			
Worth Forest	SSSI	5.8km south	Lowland broadleaved, mixed and yew woodland.
Turner's Hill	SSSI (G)	6.1km south-east	A disused quarry exposing the Ardingly Sandstone of the upper Lower Tunbridge Wells Formation (upper Hastings Beds Group), Wealden Series. The near vertical plane-cut walls and floor of this site provide excellent three dimensional sections through the sandstone.
Wakehurst and	SSSI	6.5km south-east	The site contains extensive exposures of sandrock, a nationally rare habitat, which are of biological and



Site	Designation ((G) = Designated for geological importance)	Distance (km) and bearing from scheme	Reason for designation from citations
Chiddingly Woods			geological importance. This site has the richest sandrock community in the country, supporting a unique flora. It is the locality of an uncommon crane fly, and also has a diverse breeding community of woodland birds.
Clock House Brickworks	SSSI (G)	6.5km west	This brick pit shows beds in the lower part of the Weald Clay Group. It is one of the most important exposures of Weald Clay.
Blindley Heath	SSSI	6.9km east	This site is the best known example of relic damp grassland on Weald Clay in Surrey. The grassland supports a rich flora of typical 'Wealden' plants, some of which now have a restricted distribution in Surrey. Several ponds and a stretch of the Ray Brook contribute further to the site's interest.
Warnham	SSSI (G)	7.2km south-west	The Langhurst Wood brick pit exposes the lower Weald Clay Group above the Horsham Stone and is one of the most important sites in this unit.
Auclaye	SSSI (G)	7.7km west	This site yields well preserved bodies and wings of insects of Lower Cretaceous age. It is a locality of importance in studies of Mesozoic insect faunas.
Reigate Heath	SSSI	8.1km north	The site encompasses a range of habitats including Reigate Heath which consists of open heath and acidic grassland. The site also includes alder ( <i>Alnus glutinosa</i> ) woodland, and within the eastern boundary, some marshy meadows; these are the only examples of their type in Surrey that have not been destroyed by modern agricultural improvement.
Cow Wood and Harry's Wood	SSSI	8.1km south	This ancient woodland has several steep sided stream valleys (ghylls) which contain plants with an 'Atlantic' distribution. The woodland supports a rich community of breeding birds.
St Leonard's Forest	SSSI	8.1km south-west	This site includes the remnants of a formerly more extensive deciduous forest on the Tunbridge Wells Sands. Examples of high forest remain and the ground vegetation is still varied, and the streams which cross the site retain relict flora from the 'Atlantic' period c. 5000 years ago. The woodlands also support a population of the purple emperor ( <i>Apatura iris</i> ), a butterfly with a restricted British distribution.
Philpots and Hook Quarries	SSSI (G)	8.7km south-east	This quarry exposes the upper parts of the Ardingly Sandstone Member of the upper Lower Tunbridge Wells Sand Formation and the lower member of the Grinstead Clay Formation capped by the base of the Cuckfield Stone Member.
Vann Lake and Ockley Woods	SSSI	8.8km west	This site contains a wooded ghyll (woodland forming on steep-sided valleys) which has been dammed to form a hammer pond. The underlying geology is mainly of Weald Clay, although contrasting outcrops of Paludina Limestone increase habitat diversity. The woodlands include blocks of ancient woodland, and are botanically rich, particularly with regard to bryophytes (mosses and liverworts) and fungi. The site also supports a number of uncommon insects, an important community of breeding birds, and a population of dormice ( <i>Muscardinus avellanarius</i> ).
St. Leonard's Park Ponds	SSSI	8.9km south-west	The broad fringe of fen and marginal vegetation surrounding the ponds support diverse botanical communities and a number of uncommon species occur at Dry Pond. The ponds and adjacent woodland provide habitat for a diverse range of odonata (dragonfly and damselfly) species, including several rare species.
Weir Wood Reservoir	SSSI	9.5km south-east	One of the largest areas of open water in Sussex. It supports a rich community of breeding birds and the diversity and numbers of wintering and passage birds are also of note.



Site	Designation ((G) = Designated for geological importance)	Distance (km) and bearing from scheme	Reason for designation from citations
Mole Gap to Reigate Escarpment	SAC	9.5km north	There are three habitats that are primary reason for designation. These are stable xerothermophilous formations with box ( <i>Buxus sempervirens</i> ) on rock slopes; semi-natural dry grasslands and scrubland facies – particularly important for orchids; and, yew ( <i>Taxus baccata</i> ) woodland. Several other habitats and species are also listed as being important in the SAC but are not reasons for designation including European dry heaths; beech ( <i>Asperulo-Fagetum</i> ) forests; great crested newts ( <i>Triturus cristatus</i> ) and Bechstein's bat ( <i>Myotis bechsteinii</i> ).
Mole Gap to Reigate Escarpment	SSSI	9.5km north	This site contains the largest part of the North Downs in Surrey which has remained relatively undisturbed by the pressures of modern farming and building. It includes a range of outstanding wildlife habitats representative of the best of those found on the North Downs. Woodland, chalk grassland, chalk scrub and heathland form an interrelated mosaic which supports a wide diversity of characteristic plants and animals, of which many are local or rare.
Stone Hill Rocks	SSSI (G)	9.6km south-east	This site shows a typical example of the many natural sandstone crags in mid-Sussex exposing the upper Lower Tunbridge Wells Sand Formation in the upper Hastings Beds Group.
Leith Hill	SSSI	10.2km west	This site consists of a wide variety of woodland habitats, some of restricted distribution, which have developed under the influence of underlying geology and past management. It supports a diverse community of breeding birds and numerous invertebrates of national and county significance have been recorded.
West Hoathly	SSSI (G)	10.6km south-east	A working brick clay pit which exposes sections of clays at the base of the Wealden Wadhurst Clay Formation and occasionally the underlying Top Ashdown Pebble Bed.
Godstone Ponds	SSSI	10.7km north-east	These two small areas embrace a range of wetland habitats including good examples of a nationally uncommon woodland type (base-rich springline alder wood) and three ponds. There is a great deal of local variation in geology and hydrology within the site; consequently several plants which are uncommon in Surrey occur. The site supports a rich community of breeding birds and has a rich invertebrate fauna.
Mills Rocks	SSSI	11.5km east	This site contains one of the few outcrops of Tunbridge Wells Sandstone in the county with a community of 'Atlantic' plants. This community is unusual and contains several plants with a restricted distribution.
Lingfield Cernes	SSSI	11.7km east	The site consists of a small group of alluvial meadows in the valley of the River Eden on the Kent/Surrey border. There are few such meadows remaining in Surrey and this site supports several uncommon plants, two of which are nationally scarce.
Quarry Hangers	SSSI	11.7km north	This site encompasses an area of chalk downland. It includes a mixture of species-rich chalk grassland, scrub and woodland and supports a number of plants which are rare or local in Surrey, as well as local invertebrates.
Ashdown Forest	SSSI	11.8km south-east	One of the largest single continuous blocks of heath, semi-natural woodland and valley bog in south-east England, and it supports several uncommon plants, a rich invertebrate fauna, and important populations of heath and woodland birds.
Ashdown Forest	SPA	11.8km south-east	Supports breeding colonies of Dartford warbler ( <i>Sylvia undata</i> ) and nightjar ( <i>Caprimulgus europaeus</i> ).
Ashdown Forest	SAC	11.8km	Designated for its North Atlantic wet heaths and European dry heaths. Great crested newts known to be

Site	Designation ((G) = Designated for geological importance)	Distance (km) and bearing from scheme	Reason for designation from citations
		south-east	present.
Staffhurst Wood	SSSI	12.5km north-east	An ancient wooded common lying on the Weald Clay.
Woldingham & Oxted Downs	SSSI	12.9km north-east	Comprises a large area of downland. The site includes rich chalk grassland, scrub and mature and secondary woodland supporting many species of characteristic plants and animals, a number of which are rare.
Smokeyjack Clay Pit	SSSI (G)	13.1km west	The site consists of a pit in the lower Weald Clay Group. Important for depositional environments and faunas.
Chipstead Downs	SSSI	13.3km north	Areas of steeply sloping chalk grassland with associated scrub and secondary woodland, as well as large areas of ancient woodland over clay-with-flints on the plateau. The greater yellow-rattle ( <i>Rhinanthus angustifolius</i> ) is present, a plant which has become so rare as to be attached special protection as an endangered species faced with possible extinction.
Hackhurst and White Downs	SSSI	13.5km north-west	The chalk slopes are covered by a mosaic of grassland, scrub and secondary woodland habitats.
Slinfold Stream and Quarry	SSSI (G)	13.7km south-west	The site includes rare exposures of the geologically important and architecturally famous Horsham Stone Member of the lower Weald Clay Group.
Ranmore Common	SSSI	14.1km north-west	The site is a continuous block of woodland. Some of the woodland is ancient, but the remainder is secondary woodland which has developed over former heathland or rough pasture. The site supports a diverse community of breeding birds.
Farthing Downs and Happy Valley	SSSI	14.5km north	Supports the most extensive area of semi-natural downland habitats remaining in Greater London. The site is of particular interest for its species-rich chalk and neutral grasslands and for an area of ancient woodland known as Devilsden Wood. In addition the grasslands support the largest British colony of the nationally rare greater yellow-rattle.
<b>Sites within 15-30km of proposed works</b>			
The Mens	SAC	25km south-west	Primarily designated for its beech woodland rich in lichens, bryophytes, fungi and saproxylic invertebrates. Although not the primary reason for its designation, barbastelle bats ( <i>Barbastella barbastellus</i> ) are present.
Ebernoe Common	SAC	29km west	Designated for its beech forest habitat and the presence of barbastelle and Bechstein's bats.

**Table 2.2 – Gatwick 2R: Baseline search of non-statutory designated sites within 5km of the existing footprint.**

Site	Designation	Distance (km) and bearing from scheme <sup>7</sup>	Reason for designation from citations
Horleyland Wood	SNCI	Within footprint East	A good example of an ancient coppice-with-standards bluebell ( <i>Hyacinthoides non-scripta</i> ) wood. Although frequent in West Sussex, this woodland type is virtually confined to Britain.
Rowley Wood	SNCI	Within footprint South	An area of ancient woodland that is partly coppiced-with-standards, with bluebell dominant in the ground flora. Although this woodland type is common within West Sussex, it is largely confined to Britain. Rowley Wood is an area of relatively undisturbed habitat on the edge of a large and expanding town.
Willoughby Fields	SNCI (also an LNR)	Within footprint South	A large site containing several unimproved grassland fields with a network of hedgerows, area of scrub and small copses. It lies beneath the River Mole and an un-named stream on the outskirts of Langleigh Green in Crawley. The site is well used by the public for informal recreation and it adjoins a rugby club. A considerable amount of tree and hedge planting has been carried out on this site.
Ifield Brook Wood and Meadows	SNCI	0.2km south	The sites value lies in a combination of different habitats including: neutral grassland, semi-natural woodland and a stream. The site incorporates a number of relatively herb-rich meadows enclosed by thick hedges. Species composition differs due to a variety in grazing pressure.
Wood near Lower Prestwood Farm	SNCI	0.7km west	This wood is dominated by hornbeam ( <i>Carpinus betulus</i> ) and ash mainly grown from coppice. There are very few remaining standards as these have all been felled. Birch and sycamore ( <i>Acer pseudoplatanus</i> ) are also frequent in some areas. The shrub layer forms variable cover and consists of several species. The ground flora is dense and species-rich.
Ewhurst Wood	SNCI	1.0km south	Urban woodland which has been divided into three by road building. The wood is mostly oak ( <i>Quercus robur</i> ), ash ( <i>Fraxinus excelsior</i> ) and birch ( <i>Betula pendula</i> ) which has good structure and a diverse ground flora. The site is important as an area of semi-natural habitat in a heavily built-up area.
Grattons Pond	SNCI	1.2km south	A relatively large area of open water with marshy edges. It also encompasses a stand of reedmace ( <i>Typha</i> spp.) and three woodland islands. The site is important for wildlife as an area of semi-natural habitat in an urban environment and for its botanical interest as the site supports several rare plants.
The Roughs	SNCI	Within 2km east	Ancient semi-natural woodland and damp, semi-improved grassland that supports at least 18 ancient woodland indicator species. Fine-leaved water-dropwort ( <i>Oenanthe aquatica</i> ), a species shown as Locally Rare on the Surrey Rare Plant Register is present on the site.
Withy Gill	SNCI	Within 2km north	The site is a wetland habitat, comprising wet meadowland, reedbed and open water. The site contains a typical wetland plant community, characteristic of a habitat type that is diminishing in Surrey. The presence of the nationally rare plant narrow-leaved water-dropwort ( <i>Oenanthe silaifolia</i> ) considerably raises the site's importance.
Edolph's Copse	SNCI	Within 2km west	Mixture of ancient semi-natural woodland, secondary woodland and recent scrub and un-wooded meadows. Small-leaved lime and some very large wild service trees ( <i>Sorbus torminalis</i> ) are present.

<sup>7</sup> Information concerning the distance of individual sites from the proposed scheme boundary was provided by a number of Biological Records Centres to differing resolutions. The information shown in this table reproduces this information, hence certain sites have specific distances from the proposal (in km) and others are identified as sitting within distance bands from the proposals.

Site	Designation	Distance (km) and bearing from scheme <sup>7</sup>	Reason for designation from citations
Wheatfield Marsh	SNCI	Within 2km north-east	Dry woodland, willow scrub and open fen vegetation with brown sedge ( <i>Carex disticha</i> ) present, a rare plant in Surrey and the primary reason for selection as an SSCI.
Langshott Wood	SNCI	Within 2km north east	More than 5 ha of ancient semi-natural woodland habitat with 10 ancient woodland indicator species recorded.
Copthorne Common	SNCI	2.0km south-east	Two contiguous areas of common land. The larger of the two is managed as a golf course with valuable areas of semi-natural habitat. The main interest of the site is its heathland, but it also has a mosaic of grassland types and areas of woodland.
Ifield Pond and surroundings	SNCI	2.0km south-west	Considerable local importance due to the presence of birdlife, dragonflies and amphibians.
Hyde Hill	SNCI	2.3km south-west	A combination of habitats with semi-natural woodland, thick hedgerows, streams and rough grassland. The site supports a number of uncommon plants and butterflies, plus a diversity of breeding birds.
The Hawth	SNCI	2.6km south	Semi-natural woodland predominantly consisting of birch ( <i>Betula</i> spp.) with a dense shrub layer and rich ground flora. The woodland is considered as having outstanding importance for nature conservation as it is the only large woodland within the town of Crawley. There woodland contains an abundance of deadwood and has good natural regeneration of trees and shrubs
Orltons Copse	SNCI	2.6km west	The site consists of two large areas of oak and hornbeam, woodland separated by smaller areas of oak, hazel ( <i>Corylus avellana</i> ), and ash woodland. There are several small streams throughout and a hay meadow. The mixture of habitats at this site provides a rich bird community.
Woldhurstlea Wood	SNCI	2.8km south	Much of the small wood is semi-natural but has many characteristics of ancient semi-natural woodland, including a rich ground flora. The birdlife of this site is also fairly diverse.
Worth Meadows	SNCI	2.8km south	Encompasses several habitats in a relatively small area including relatively species-rich meadows, two overgrown ponds, some woodland and a stream.
Worth Way	SNCI	3.0km south	Encompasses a range of habitats including semi-natural woodland, neutral grassland, scrub and marsh areas, all of which form a wildlife corridor through a heavily built up area.
Buchan Country Park	SNCI	3.5km south	An area of woodland with an increasing area of heathland, a small meadow and three large lakes.
Tilgate Park	SNCI	3.7km south	The size, diversity of habitats and high degree of public usage make this a very important wildlife site. Much of the area is re-planted ancient woodland with large areas of parkland, grassland and several lakes. The golf course to the east of the site was added to the SSCI in 2003 due to its areas of heath within the rough.
Oaken Wood, Stony Plats and High Lines	SNCI	4.0km south-east	Most of the site consists of oak, hazel and birch woodland with small-leaved lime ( <i>Tilia cordata</i> ) occurring occasionally. Along the streams alder occurs. The woodland supports a good number of plants, mosses, liverworts, birds and butterflies.
Horsegills Wood	SNCI	4.1km south-west	Ancient semi natural ghyll woodland with notable populations of Coralroot, a very rare plant species
Kilnwood Copse	SNCI	4.1km south-west	Woodland consisting mainly of oak and hornbeam. There are two small ponds, but these are overgrown and currently are of limited value to biodiversity.

Site	Designation	Distance (km) and bearing from scheme <sup>7</sup>	Reason for designation from citations
Lobbs Wood and Furnace Pond	SNCI	4.2km south-east	Forming part of an ancient wood complex. The ghyll is an extremely valuable feature. Furnace Pond is a large area of open water surrounded by ancient woodland, which has its considerable ornithological importance well documented.
Petridgewood Common	SNCI	Within 5km north	Semi-improved grassland, scattered trees, scrub, small areas of broadleaved woodland. Selected for areas of species rich neutral grassland.
Newdigate Brickworks	SNCI	Within 5km west	Former clay pits and brickworks with two lakes and an area of ancient semi-natural woodland.
Duke's Copse	SNCI	Within 5km west	Ancient semi-natural woodland with formerly managed hornbeam coppice with oak standards.
Leg of Mutton Wood, The Jordans and Jordans Wood	SNCI	Within 5km west	Ancient semi-natural woodland with some conifer plantation. Forty-five ancient woodland indicator species recorded.
Hammond's Copse	SNCI	Within 5km north-west	Ancient semi-natural woodland with oak coppice.
Beggars Gill Wood	SNCI	Within 5km west	Ancient semi-natural woodland with a series of ghylls. Base enriched ground flora with two ponds present
Pockmires Wood	SNCI	Within 5km west	Ancient semi-natural woodland formerly managed hornbeam, ash and hazel coppice with oak and ash stands. Thirty-two ancient woodland indicator species have been recorded.
Ricketts Wood	SNCI	Within 5km west	Ancient semi-natural woodland, locally frequent hornbeam coppice. Areas of base-rich flora are present along the stream, path and pond.
Furzefield Wood	SNCI	Within 5km north east	Ancient semi-natural woodland larger than 5h a. Nineteen ancient woodland indicator species have been recorded and over 100 plant species in total.
Wrays Wood	SNCI	Within 5km north	Selected for its ancient semi-natural woodland habitat supporting at least 22 ancient woodland indicator species. The woodland's value is enhanced as it is connected via hedgerows to further areas of ancient semi-natural woodland to the north.
Brook Wood	SNCI	Within 5 k north east	Selected for the ancient semi-natural woodland habitat which covers 11.5 ha and supports at least 25 ancient woodland indicator species. Wild daffodil ( <i>Narcissus pseudonarcissus subsp. pseudonarcissus</i> ) a species shown as Locally Rare on the Surrey Rare Plant Register is present on the site.
Ten Acre Wood	SNCI	Within 5km north east	Ancient semi-natural woodland of the nationally uncommon NVC W8 hornbeam variant. An excellent example of Wealden NVC W8/W10 woodland.
Home Grove	SNCI	Within 5 km north	Ancient semi-natural woodland, plantation and secondary woodland, scrub, open glades. Selected as structurally diverse woodland containing at least 21 ancient woodland indicator species and including areas of ancient semi-natural woodland. Also of importance due to its position in surrounding ecological units.
Acorn Mill, Cidermill Wood and the Birches	SNCI	Within 5km west	Ancient semi-natural woodland, ash frequent with oak and hornbeam coppice and field maple ( <i>Acer campestre</i> ).

Site	Designation	Distance (km) and bearing from scheme <sup>7</sup>	Reason for designation from citations
Bolters Wood	SNCI	Within 5km north	Selected as an ecologically interesting semi-natural woodland of likely ancient status. It has retained its structure and contains coppiced field maple and rarer species, such as wild service tree. At least 13 ancient woodland indicator species have been recorded on the site.
Crutchfield Copse	SNCI	Within 5km north	Semi-natural broadleaved woodland. Selected for 5.9 ha of old semi-natural woodland with at least 24 ancient woodland indicator species including small-leaved lime.
"Copper Coin Pond"	SNCI	Within 5km east	Mesotrophic (moderate nutrient enrichment) pond and broadleaved semi-natural woodland with relic unimproved grassland.
"Copper Coin Paddocks"	SNCI	Within 5km east	Unimproved mesotrophic grassland with small area of improved grassland.
Perry Wood and Gail Lane	SNCI	Within 5km north	The site is selected for its ancient woodland habitat supporting good numbers of ancient woodland indicator species. The connecting byway is particularly notable for its specimens of wild service tree, an uncommon indicator of ancient woodland.
Woods West of Crutchfield copse South	SNCI	Within 5km north	Selected as an example of good quality semi-natural broadleaved woodland supporting at least 16 ancient woodland indicator species adjacent to other ancient woodland sites.

## 2.3 Priority Habitats

Table 2.3 contains a list of Priority Habitats present within the proposed scheme footprint. Biodiversity Figure 4 shows these sites with buffer distances of 0-2km and 2-5km. Within the scheme footprint, the only Priority Habitat type present is deciduous woodland. Other UK Priority Habitats are present within 5km including semi-improved grassland, traditional orchards, lowland heath and lowland meadows.

For habitats of principal importance for biodiversity within the proposed operational boundary (land take) zone, the following figures are provided by Gatwick Airport Limited: 62.1 ha of lowland mixed deciduous woodland including 8 ha of ancient woodland; 49.7km of hedgerow including 25.3km of ancient hedgerow; 3.5km of rivers and brooks including 2.2km of canalised or conduited channel; and, 6 ponds (size unspecified, but indicated on drawings).

**Table 2.3 - Priority Habitats within 5km of the Gatwick 2R Scheme**

Priority Habitat type	Gatwick Airport		
	Footprint	0-2km	2-5km
Coastal and floodplain grazing marsh	Absent	Absent	Absent
Deciduous woodland	Present	Present	Present
Good quality semi-improved grassland	Absent	Present	Present
Lowland calcareous grassland	Absent	Absent	Absent
Lowland dry acid grassland	Absent	Absent	Absent
Lowland fen	Absent	Absent	Absent
Lowland heathland	Absent	Absent	Present
Lowland meadows	Absent	Absent	Present
Purple moor grass and rush pasture	Absent	Absent	Absent
Reedbeds	Absent	Absent	Absent
Traditional orchards	Absent	Present	Present

## 2.4 Protected and notable species

Appendix A provides an extensive list of protected species recorded within 2km of the scheme boundary during the last 10 years, sourced from the Biodiversity Records Centres. Key species include various species of bat, great crested newts, hazel dormouse and reptiles (including grass snake and adder).

## 2.5 Ancient Semi-natural Woodland

Biodiversity Figure 5 show areas of ancient semi-natural woodland within 5km of the Gatwick Airport proposal. This information is taken from the Forestry Commission's Ancient Woodland Inventory (Forestry Commission, 2014) and covers areas of 2 ha and above only. There is a significant amount of ancient semi-natural woodland within the footprint, and within 5km of, Gatwick Airport. There are various pressures on ancient woodland at a local and national scale from development.



## 2.6 National Character Areas and Trends

### Key Characteristics

The Gatwick scheme lies within the *Low Weald* National Character Area (NCA) (No. 121) (Natural England, 2013b) and the *High Weald* NCA (No. 122) (Natural England, 2013c). The key characteristics of these NCAs are summarised in Table 2.4.

**Table 2.4 - Summary of key characteristics of the National Character Areas for Gatwick 2R.**

Low Weald	High Weald
Broad, low lying and gently undulating clay vales underlie a small-scale intimate landscape enclosed by an intricate mix of small woodlands, a patchwork of fields and hedgerows.	Landform consists of clays, sand and soft sandstones, deeply intersected with numerous gill streams which form the headwaters of some major rivers: the Rother, Brede, Ouse and Medway.
Topography and soils vary locally in relation to higher drier outcrops of limestone or sandstone, which are commonly sites of settlements.	The soils are highly variable over short distances which, in part, have led to a high density of extraction pits, quarries and ponds.
The Low Weald generally includes an abundance of ponds and small stream valleys often with wet woodlands of alder and willow.	A large area of interconnected ancient woods, steep sided gill woodlands, wooded heaths and shaws.
Tall hedgerows with numerous mature trees link copses, shaws (small group of trees or a thicket) and remnant woodlands which combine to give the Low Weald a well-wooded character.	Ridge-top roads and a dense system of droveways edged with trees and wild flower-rich verges and boundary banks. There is a dense network of lanes enclosed by high hedgerows and woodland strip.
Field trees, usually of oak but now declining, are characteristic of the area south-east of Dorking.	Fields, predominantly of medieval origin, enclosed by a network of hedgerows and wooded and managed historically as a mosaic of small agricultural holdings.
Grassland predominates on the heavy clay soils while lighter soils on higher ground support arable cropping in a more open landscape.	A predominantly grassland agricultural landscape grazed by sheep and cattle.
Rural in character with dispersed farmsteads. Small settlements often include many timber and brick-built traditional buildings.	Rural and medieval in character, reflected in the patterns of settlement, fields and woodland.
Historic settlement pattern was dictated by a preference for higher drier outcrops of limestone or sandstone with moated manor houses being a characteristic feature.	Ashdown forest is a high, rolling and open heathland lying on the sandstone ridges to the west of the area.
Urban and airport related development sprawl in the flat plain around Gatwick and in the Horley-Crawley commuter settlements, contrast with the pleasant, wet, woody, rural character of the area and as such are less distinctively Wealden.	High-quality vernacular architecture with distinct local variation using local materials. Horsham slate is used on mainly timber structures and timber-framed barns are particularly notable Wealden characteristic features of the High Weald.



## Trends

The Low Weald and High Weald NCAs identify key trends within their respective areas. These are summarised in Table 2.5.

**Table 2.5 Low Weald NCA and High Weald NCA – Ecological features and trends**

Feature	Trend	
	Low Weald	High Weald
<b>Trees and woodland</b>	The area of woodland entered in the Woodland Grant Scheme or under management agreement increased significantly between 1999 and 2003, with native woodland being maintained although field trees, particularly oak species are now declining in number and condition.	The area of woodland entered into the Woodland Grant Scheme almost doubled between 1999 and 2003. Woodlands are still under pressure and being damaged by factors such as livestock impacts, lack of management and clay extraction.
<b>Boundary features</b>	Lack of management and farm diversification has led to the decline and loss of hedgerows and hedgerow trees, and consequentially a fragmentation of the landscape structure.	Countryside Stewardship agreements are helping to improve hedgerow management. Continuing pressures on the boundary features remain a threat to their character and condition.
<b>Agriculture</b>	In general agriculture declined between 2000 and 2009 with the number of dairy farms and head of cattle and sheep reducing. However, the agricultural landscape has been maintained in the area although fragmentation of farmland continues with the conversion to gardens and paddocks. Traditional hop gardens and orchards have also been lost.	Agriculture has remained stable and predominantly pastoral. The number of dairy farms has decreased, along with grass-based livestock production dropping by nearly a third.
<b>Semi-natural habitats</b>	Pressure exists on ancient woodland as a result of past conversion to coniferous plantation and neglect. Although ponds are constantly under pressure from neglect and agricultural intensification, the area ranks second nationally for pond density.	A decline management is reducing both quality and quantity of habitats.  Unimproved meadow sites are at risk from neglect, tree planting or intensification and an increase in equine paddocks.  Ancient woodland is under threat due to increased shading as a result of the presence of <i>Rhododendron ponticum</i> , and decline of coppice management.  Nitrogen deposition from traffic in the vicinity has impacted Ashdown Forest SAC.
<b>Rivers</b>	Diffuse pollution across the area has led to unfavourable water conditions in some rivers, with increased abstraction resulting in low flows. Water voles ( <i>Arvicola terrestris</i> ) have declined by approximately 90% in the last twenty years as a result of habitat loss and competition from / predation by American mink ( <i>Neovison vison</i> ). However, otter ( <i>Lutra lutra</i> ) are now returning to the area's watercourses.	Biological and chemical water quality has been maintained as excellent and very good, respectively.  Reedbed management under Countryside Stewardship agreements is assisting in managing the pressures on the riparian landscapes which line streams and river.

## Drivers

The Low Weald and High Weald NCAs identify key drivers for change within their respective areas. These are summarised in Table 2.6.

**Table 2.6 - Lower Weald NCA – Drivers of change**

Driver	Effect	
	Low Weald	High Weald
<b>Climate change</b>	<p>Veteran oak and beech trees could be threatened by diseases such as Sudden Oak Death. Ash dieback (<i>Chalara fraxinea</i>) has also been identified in the area and threatens ash populations.</p> <p>An increase in the frequency and severity of storms is also likely to result in increased wind throw of significant trees. Warmer winters and hotter, drier summers may lead to a change in predominant species composition with woodlands and hedgerows changing from oak, ash, field maple, and holly (<i>Ilex aquifolium</i>) towards more drought-tolerant species such as hazel and hawthorn (<i>Crataegus monogyna</i>).</p> <p>The trend towards hotter summers and wetter winters may also result in increased flood events and flash floods. Pasture will become vulnerable to summer drought which may lead to set-aside being used more frequently to allow pasture to recover from drought stress. There may also be a change in the crop types grown with potentially more vines being planted.</p>	<p>Agriculture and forestry industries need to adapt to unpredictable weather patterns by growing different crops and developing more flexible and responsive land management practices.</p> <p>Increasing incidences of pathogens such as fungi and insect-borne diseases are disrupting timber crops and changing the species mix of woodlands.</p> <p>High temperatures and prolonged drought is putting heathland and wooded heath areas under stress and increasing the risk of wildfires. Adapting to a reduction in water available to domestic, business and agricultural users will be required.</p> <p>Increased incidence of flooding and pressure for restoring the natural function of river valleys may conflict existing features and lead to a degradation and loss of oceanic communities of ferns, mosses, liverworts and lichens.</p>
<b>Urban development</b>	<p>Crawley, Reigate and Horsham have plans to construct 28,000 new homes by 2026, making the area an 'outstanding' priority for woodland conservation.</p> <p>Increased water abstraction would also impact on rivers, wetland habitats and woodland within flood plains.</p>	<p>High demand for housing will result in strong pressures for development surrounding the High Weald AONB boundary.</p>

## 2.7 Conclusions

A total of 44 statutory designated and 46 non-statutory designated sites are located within the search area from Gatwick Airport. There are several records of protected species presence, including great crested newts and dormice, within the search area. The deciduous woodland within the footprint of the airport is classified as a priority, some of which is classified as ancient semi-natural woodland. The two NCAs that the airport sits within have trends that are driven by climate change and urban development. Overall climate change could lead to a change in land use; an increase in the risk of impacts by pathogens; changes in species composition; and, an increase in flooding. Urban development is driving towards an increase in water abstraction and creating stress on natural habitats such as woodland as a result of the pressure to develop within them.

## 3 Heathrow Airport Northwest Runway

### 3.1 Designated Statutory Sites

Table 3.1 lists the designated sites within the relevant buffer areas to Heathrow NWR boundary. There are eight sites of importance to biodiversity at International (European) level within 15km of the scheme, these are: the South West London Waterbodies SPA and Ramsar; Windsor Forest and Great Park SAC; Burnham Beeches SAC; Thursley, Ash, Pirbright and Chobham SAC; Wimbledon Common SAC; Richmond Park SAC; and, the Thames Basin Heaths SPA. The South West London Waterbodies SPA and Ramsar site is located on the scheme boundary; this site has internationally important numbers of the ducks gadwall and shoveler (the qualifying interest species of the SPA). There are no European sites within 15-30km of the airport boundary designated for important bat populations.

There are 34 SSSIs and four NNRs within 15km of the proposed scheme. There are seven SSSIs within 5km, with Wraysbury Reservoir and Staines Moor SSSIs being within 2km of the scheme boundary. All SSSIs within the 5km buffer are in either *favourable* or *unfavourable recovering* status except for a small section (under 2%) of Staines Moor SSSI in unfavourable declining condition.

There are nine LNRs within 5km of the scheme boundary, with the following five within 2km: Cranebank LNR; Bedfont Lakes LNR; Hounslow Heath LNR; Arthur Jacobs Nature Reserve LNR; and, Pevensley Road LNR.

Biodiversity Figure 6 in the accompanying Biodiversity Figures report shows the locations of these sites.

### 3.2 Non-statutory Designated Sites

The Biological Records Centres have provided information on 80 non-statutory sites within 5km of the scheme boundary; these are listed within Table 3.2, below. The following site lies within the footprint of the development proposal: Lower Colne Site of Metropolitan Importance for Nature Conservation (SMINC) (51ha).<sup>8</sup> HAL identified an impact on this site, Old Slade Lake LWS and Stanwell II SNCI.

Biodiversity Figures 7 and 8 show the locations of these sites.

<sup>8</sup> SINC are recognised by the Greater London Authority and London Borough councils as important wildlife sites. There are three tiers of sites; Metropolitan, Borough I and Borough II and Local Importance.

**Table 3.1 - Heathrow NWR scheme: Baseline search of statutory designated sites**

Site	Designation ((G) = Designated for geological importance)	Distance (km) and bearing from scheme	Reason for designation from citations
<b>Sites within 0-2km of proposed works</b>			
Cranebank	LNR	0km east	Comprised of flood meadows. An important winter flood site forming ox-bow lakes with many species of plants and invertebrates.
South West London Waterbodies (SWLWB)	SPA & Ramsar	0km south-east	Used regularly by 1% or more of the biogeographical populations of gadwall ( <i>Anas strepera</i> ) and shoveler ( <i>Anas clypeata</i> ). The site includes numerous waterbodies.
Staines Moor	SSSI (part of SWLWB)	0 km south-east	A semi-natural stretch of the River Colne which flows through Staines Moor and three adjacent reservoirs. Staines Moor represents the largest area of alluvial meadows in Surrey and supports a rich flora while the reservoirs hold nationally important populations of wintering wildfowl. A pond at the site carries aquatic flora which is of national importance.
Bedfont Lakes	LNR	0km south	Comprised willow ( <i>Salix</i> spp.) carr, reedbeds, lakes, scrubs, neutral grassland, wildflower meadow and bare soil.
Wraysbury Reservoir	SSSI (part of SWLWB)	0.8km west	The site supports nationally important numbers of wintering cormorant ( <i>Phalacrocorax carbo</i> ), great crested grebe ( <i>Podiceps cristatus</i> ) and shoveler.
Hounslow Heath	LNR	1.0km east	Comprised of heathland and acid grassland with hay meadows, scrub, woodland and marsh. The site has a rich variety of heathland flora, reptiles, scrubland, birds and invertebrates.
Arthur Jacobs Nature Reserve	LNR	1.4km west	Consists of wet woodland and lagoons and has a good selection of habitats for invertebrates.
Pevensley Road	LNR	2.0km south-east	Classed as greenspace with meadow scrubland, woodland and wetland running alongside the river Crane.
<b>Sites within 2-5km of proposed works</b>			
Wraysbury No. 1 Gravel Pit	SSSI (part of SWLWB)	2.2km west	Wraysbury No 1 Gravel Pit is of national importance for wintering gadwall. The site is also locally important for a number of other wintering bird species.
Wraysbury and Hythe end Gravel Pits	SSSI (Part of SWLWB)	2.9km west	Comprised of a mosaic of open water, islands, grassland, scrub and woodland within an area of former gravel extraction. The site supports nationally important numbers of wintering wildfowl, together with an important assemblage of breeding birds associated with open waters and wetland habitats. The site also supports two nationally scarce invertebrates and a number of locally uncommon plants.
Crane Park Island	LNR	2.9km south-east	A small island surrounded by the River Crane. Habitats include grassland, wet woodland, reedbed and a pond.
Kempton Nature Reserves	LNR	4.1km south-east	Important wetland nature reserve.

Site	Designation ((G) = Designated for geological importance)	Distance (km) and bearing from scheme	Reason for designation from citations
Oak Avenue Hampton	LNR	4.2km south-east	Landscaped with the help of local groups and volunteers to include an area of wildflower meadow and hedgerow.
Thorpe Hay Meadows	SSSI	4.5km south	A small, five-sided meadow lying on the alluvial gravels of the Thames Flood Plain, surrounded by ditches and high hedges. Much of the surrounding land has been used for gravel extraction. The site is thought to be the last remaining example of a Thames valley hay meadow in Surrey. It contains a range of lime-loving (calcicole) plants which are characteristic of this type of meadow.
Langham Pond	SSSI	4.7km south-west	The combination of alluvial soils and the influence of the chalk parent rock has led to the development of rich aquatic, marginal and meadow floras. The pond supports several nationally scarce invertebrates. Woodland on adjacent higher ground above the flood plain lies on London Clay and supports a rich community of breeding birds.
Kempton Park Reservoirs	SSSI	4.8km south-east	Huge swathes of reedland habitat, the site is regularly visited by bearded tits ( <i>Panurus biarmicus</i> ), sedge warblers ( <i>Acrocephalus schoenobaenus</i> ) and many other reed dependant species.
Yeading Meadows	LNR	5.0km north	Part of the Yeading Woods LNR. The woodland consists mostly of oak ( <i>Quercus</i> spp.) planted in the late 19 <sup>th</sup> Century with an understorey of hawthorn and hazel in its majority.
<b>Sites within 5-15km of proposed works</b>			
Knight and Bessborough Reservoirs	SSSI (part of SWLWB)	5.9km south-east	Two connected artificially embanked water storage reservoirs which support a variety of waterfowl, including nationally important numbers of wintering shoveler.
Dumsey Meadow	SSSI	5.9km south	Unimproved neutral grassland. The site consists mainly of grassland dominated by crested dog's-tail ( <i>Cynosurus cristatus</i> ) and common knapweed ( <i>Centaurea nigra</i> ), forming a plant community now rare in Surrey. Marshy depressions and semi-natural vegetation along the river bank contribute to the species diversity of the site.
Thorpe Park No.1 Gravel Pit	SSSI (part of SWLWB)	6.0km south	Former gravel pit of national importance for wintering gadwall.
Black Park	SSSI	6.1km north-west	The site consists of a variety of habitats comprising dry and wet heath, alder carr, mixed and coniferous woodland and small areas of acid grassland. They support specialised communities of plants and animals, including many that are rare or uncommon in the county.
Syon Park	SSSI	6.2km east	The only known area of tall grass washland along the Thames in Greater London; it contains several invertebrate species with a restricted distribution, both locally and nationally.
Windsor Forest and Great Park	SSSI	6.2km west	Forms part of the largest continuous tract of woodland and parkland in Berkshire. The site provides habitat for a range of rare species of and a rich assemblage of Red Data book beetles and flies in particular. In addition there are areas of unimproved acid grassland.
Windsor Forest and Great Park	SAC	6.2km west	Designated for its old oak woods with the largest number of veteran oaks in Britain. Also designated for having the largest known population of violet click beetles ( <i>Limoniscus violaceus</i> ) in the UK. It is listed as the most important site in the UK for fauna associated with decaying timber on ancient trees.

Site	Designation ((G) = Designated for geological importance)	Distance (km) and bearing from scheme	Reason for designation from citations
Kingcup Meadows and Oldhouse Wood	SSSI	7.2km north	A mosaic of habitats including woodland, unimproved pastures and semi and unimproved meadowland. The fields are comprised of dry grassland, wet grassland and areas of fen and swampy vegetation. Oldhouse Wood retains a wide range of native trees and shrubs, along with many woodland species indicative of ancient woodland.
Richmond Park	SAC	7.5km east	Richmond Park has a large number of ancient trees with decaying timber. It is at the heart of the south London centre of distribution for stag beetle ( <i>Lucanus cervus</i> ), and is a site of national importance for the conservation of the fauna of invertebrates associated with the decaying timber of ancient trees.
Richmond Park	NNR	7.5km east	Notable for its rare deadwood beetle fauna.
Richmond Park	SSSI	7.5km east	Richmond Park is of importance for its diverse deadwood beetle fauna associated with the ancient trees found throughout the parkland. In addition, the Park supports the most extensive area of dry acid grassland in Greater London.
Fray's Farm Meadows	SSSI	7.9km north	One of the last remaining examples of relatively unimproved wet alluvial grassland in Greater London and the Colne Valley. The linear features of the site – ditches, hedges and railway embankment – add further habitat diversity, and contribute to the richness of plants and animals present.
Denham Lock Wood	SSSI	8.0km north	A diverse area of open mire and wet woodland which shows a zonation of wetland habitats occurring rarely in Greater London. The woodland herb flora is particularly varied and reflects subtle differences in topography and drainage.
Stoke Common	SSSI	8.5km north-west	Stoke Common is the last remnant of a tract of heathland (wet and dry heath) formerly extending from Iver Heath to Littleworth Common.
Old Rectory Meadows	SSSI	9.7km north	Contains a range of grassland types, notably base-rich and poor marsh, wet alluvial meadows and water meadows with grazed wet and damp meadows, as well as alder carr woodland.
Esher Commons	SSSI	10.0km south east	Heathland, grassland, scrub, woodland and areas of marsh, bog, and open water, present a rich variety of habitats supporting many species of plants and animals. In particular, this site is famous as an important area for invertebrates and has been studied for many years.
Burnham Beeches	SSSI	10.2km north-west	Acidic soils which support mature and developing woodland, old coppice, scrub and heath. There are ancient oak and beech pollards of which the latter are a celebrated feature of international renown. Fragments of wet heath and bog, as well as an alder wood and a number of ponds coincide with springs and wet flushes, and with a small stream which in places cuts down to the chalk producing swallowholes. This complex of habitats, of which none are widely represented in Buckinghamshire and one (the ancient pollards) is virtually unique, harbours numerous plants, birds and invertebrates of regional importance, as well as several nationally rare species.
Burnham Beeches	SAC	10.2km north-west	Designated for its beech forests with holly. Surveys have shown that it is one of the richest sites for saproxylic invertebrates in the UK, including 14 Red Data Book species. It is also an area of local importance for moss communities.



Site	Designation ((G) = Designated for geological importance)	Distance (km) and bearing from scheme	Reason for designation from citations
Burnham Beeches	NNR	10.2km north-west	An area of beech and oak wood pasture with pockets of heathland and sphagnum bog, located very close to large centres of urban population.
Mid Colne Valley	SSSI	10.7km north	The Mid Colne Valley is of significant ornithological interest, particularly for the diversity of breeding woodland and wetland birds, and for the numbers of wintering wildfowl. On the eastern valley slope is one of the last remaining examples of unimproved chalk grassland in Greater London.
Thursley, Ash, Pirbright and Chobham (TAPC)	SAC	10.8km south west	Designated due to its lowland northern Atlantic wet heaths, European dry heaths and examples of depressions on peat substrates of the Rhynchosporion.
Chobham Common	NNR (part of TAPC)	10.8km south west	The NNR is an extensive open area of lowland heath.
Chobham Common	SSSI (part of TAPC)	10.8km south-west	Forms one of the largest surviving heathlands in the Thames basin. It supports a rich variety of characteristic heathland plants and animals, including many which are rare or scarce.
Ruislip Woods	SSSI	10.8km north	An area of ancient semi-natural woodland with other semi-natural habitats, mostly notably acidic grass-heath mosaic and areas of wetland. These habitats, particularly the woodland, contain a number of plant and insect species that are rare or scarce in a national or local context.
Ruislip Woods	NNR	10.8km north	Structurally diverse and species-rich ancient woodland.
Wimbledon Common	SAC	11.1km east	Designated for the presence of stag beetle. The area contains a large number of old trees and fallen decaying timber. Although not designated for having dry and wet heaths, these are also present on site.
Wimbledon Common	SSSI (G)	11.1km east	The most extensive area of open, wet heath on acidic soil in Greater London. The site also contains a variety of other acidic heath and grassland communities reflecting the variations in geology, drainage and management.
Barn Elms Wetland Centre	SSSI	11.8km east	Barn Elms Wetland Centre comprises a mosaic of different wetland habitats created on the site of redundant artificial reservoir basins. The majority of the site comprises areas of standing open water, grazing marsh and reedbed. Other significant habitats include carr woodland, scrub and mesotrophic grassland. Supports nationally important numbers of shoveler.
Harefield Pit	SSSI (G)	12.1km north	Harefield Pit provides a key section in the London Basin for a sequence through the Upper Chalk, Reading Beds and London Clay. It is also the only known site for calcareous floral remains in the Reading Beds
Ockham and Wisley Commons	SSSI & LNR	12.5km south	This site consists of a large tract of heathland lying between the Mole and Wey Rivers near Cobham, containing areas of heath, bog, open water, secondary woodland and scrub. This variety of habitats supports a rich community of heathland plants and animals, including a large number of rare and local insects.
Horsell Common	SSSI (part of TBH)	12.7km south	Rich mosaic of heathland habitats, ranging from open heath and acidic grassland to bog, heathland pools, and secondary woodland and scrub. It supports a variety of characteristic heathland plants and animals, including several which are local or rare.

Site	Designation ((G) = Designated for geological importance)	Distance (km) and bearing from scheme	Reason for designation from citations
Littleworth Common	SSSI	12.7km north-west	Formerly open heathland, developed through natural succession into birch-oak woodland. Wet flushes and ponds support communities which are both rare and declining in lowland Britain. Littleworth Common is also one of the last recorded locations for the nationally rare starfruit ( <i>Damasonium alisma</i> ).
Thames Basin Heath (TBH)	SPA	13.1km south west	A mixture of wet and dry heathland habitats, scrub and woodland. Supports important breeding populations of nightjar, woodlark ( <i>Lullula arborea</i> ), and Dartford warbler.
Bray Pennyroyal Field	SSSI	13.3km west	The sole Berkshire locality for the nationally rare pennyroyal ( <i>Mentha pulegium</i> ), a species included in Schedule 8 under the Wildlife and Countryside Act 1981 and listed in the British Red Data Book of vascular plants.
Old Park Wood	SSSI	13.4km north	Floristically rich ancient woodland.
Chawridge Bourne	SSSI	13.5km west	An area of unimproved grassland, scrub and broadleaved woodland containing species of plants local or rare in east Berkshire.
Brent Reservoir	SSSI	14.7km north-east	There is a good breeding bird assemblage on the open water and lowland fen habitats across the site.
<b>Sites within 15-30km of proposed works</b>			
No sites designated for bats found within 15-30km.			



**Table 3.2 - Heathrow NWR scheme: Baseline search of non-statutory designated sites within 5km of the existing footprint.**

Site	Designation	Distance (km) and bearing from scheme	Reason for designation from citations
Lower Colne M059	SINC Metropolitan	Within footprint	One of the finest river systems in London, connecting gravel pits and areas of wet woodland and supporting a remarkable range of wetland plan and animals.
Hounslow Heath M081	SINC Metropolitan	0km east	An extensive area of acid and neutral grassland valuable for birds, reptiles and rare plants.
Duke of Nothumberland's River at Bedfont M149	SINC Metropolitan	0km east	A section of river with excellent water quality. Provides a home for water voles, a variety of fish and aquatic plants, and an exceptional range of aquatic insects.
Cains Lane HoL05	SINC Local	0.1km south	An area of scrub and rough grassland beside Heathrow Airport.
Field Close Open Space roughs HiL14	SINC Local	0.2km north	An area of rough grassland and scrub, which link two large parks.
East of Poyle Meadows	SNCI	0.5km south-west	A site with a diversity of habitats including pond, swamp, grassland and scrub. This area was selected for its diverse wetland habitat including NVC swamp communities. The site is an important buffer between the M25 motorway and the Staines Moor SSSI.
Stanwell II	SNCI	0.5km south	Mosaic of gravel pits and ditches supporting a range of marginal vegetation including fen. There is approximately five hectares of fen vegetation which is of County importance. The site is also important for other wetland habitats, such as reed beds which support reed bunting ( <i>Emberiza schoeniclus</i> ).
Greenhams Fishing Pond	SNCI	0.5km south	Remnants of old gravel working now a fishing lake in the corner of a field used for grazing. The site is selected for its wetland habitat which compliments the wider mosaic of wetland habitats present in the surrounding M25 motorway corridor area.
Princes Lake	SNCI	0.7km south	Large body of standing water with bare ground, tall grass, scrub and dense willows. A large island in the centre of the lake provides a valuable refuge for nesting and rearing birds. This site is selected as a wetland site supporting wintering water bird assemblages of county importance including shoveler and gadwall which are on the conservation concern list for Surrey.
River Colne (From Country Boundary to Staines Moor), Stanwell Moor	SNCI	0.8km south	Environment Agency (EA) data up to 2009 shows this section of river to support a diverse fish community including European eel ( <i>Anguilla Anguilla</i> ) and to be a spawning site for barbel ( <i>Barbus barbus</i> ). This site also supports a diverse macrophyte community.
West of Poyle Meadows	SNCI	1.0km south-west	A natural river channel with good marginal vegetation along the western bank. Adjoining grassland supports botanical interest; the site was selected because the river supported a diverse macro-invertebrate diversity. This stretch of river was shown by the Environment Agency to be in the top 13% of UK watercourses due to its macro-invertebrate diversity. This SNCI is an important protective buffer to the SSSI. The site includes the river and an 8 m buffer zone to the west.

Site	Designation	Distance (km) and bearing from scheme	Reason for designation from citations
Cranford Lane Gravel Workins HiBI49	SINC Borough Grade II	1.0km north	Spoil heaps that have been colonised by wild flowers and scrub. A meadow is present to the north.
Stockley Road Rough HiL10	SINC Local	1.5km north	A strip of scrub and rough grassland.
Raleigh Park HoL07	SINC Local	1.5km south	A new landscaped park with large areas of wildflower seeded grassland and stands of young native trees.
Hartlands Wood and Lower Park Farm HoL03	SINC Local	1.5km north-east	A small wood and adjacent field, attracting a variety of bird species.
St George's Meadows, Southlands Arts Centre HiBI40	SINC Borough Grade II	1.5km north	A range of habitats in the grounds of the Southlands Arts Centre near West Drayton.
Bedfont Pits HoBI04	SINC Borough Grade I	1.9km south	A reed-fringed former gravel pit with willow woodland, providing a home to a good range of birds. Rough grassland surrounding the lake holds interesting plants such as bee orchid ( <i>Ophrys apifera</i> ).
Longford River at Feltham HoBI06	SINC Borough Grade II	1.9km south	A section of river with a good variety of water plants and a population of water voles.
London Diocesan Lands HoL13	SINC Local	2.0km south	Unknown <sup>9</sup>
Crane Corridor M076	SINC Metropolitan	2.0km south-east	This corridor of open space around the River Cran combines an excellent variety of wetland habitats, including ponds and lakes, and includes some historic buildings. The river is a stronghold for uncommon aquatic plants.
Lower Feltham Rough HoBI05	SINC Borough Grade I	2.0km south	A large area of open land with a variety of wildlife habitats and good populations of birds.
Thornccliffe Rough HoL01	SINC Local	2.0km east	An area of disused land with a mosaic of habitats, providing a diverse flora in a part of the borough with little accessible natural green space.
Wraysbury Reservoir	SNCI	2.1km south-west	This site consists of steeply sloping, terraced improved grassland banks grazed by sheep. The reservoir itself is not part of the SNCI as it is now a designated SSSI. The grassland surrounding the reservoir itself is selected as an important buffer to the SSSI.
Carp Ponds and Broad's Dock M056	SINC Metropolitan	2.2km north	A series of lakes and ponds, teeming with plant life, including a number of species which are unusual in London.

<sup>9</sup> For further information please contact the London Borough of Hounslow, Ajit Bansal, Environmental Strategy Officer, Environmental Strategy Unity, Civic Centre, Lampton Road, Hounslow, TW3 4DN. Email: [ajit.bansal@hounslow.gov.uk](mailto:ajit.bansal@hounslow.gov.uk)

Site	Designation	Distance (km) and bearing from scheme	Reason for designation from citations
Lampton Park HoL12	SINC Local	2.3km east	A large formal park surrounding the Civic Centre, with wilder areas.
Yeading Brook, Minet Country Park and Hitherbroom Park hiBI11	SINC Borough Grade I	2.3km north-east	A site centring on the reclaimed, derelict land of Minet Country Park. Much of the area is recently created rough grassland, with areas of older, more natural meadow.
Stockley Business Park Lakes and Meadows. HiBI150	SINC Borough Grade II	2.3km north	An excellent example of how wildlife habitats can be created in the grounds of a business park.
Iron Bridge Road Railsides (formerly The Piggeries) HiBI109	SINC Borough Grade II	2.5km north	An area of railway line-side that used to be grazed and now has dense scrub.
Houndslow, Feltham and Whitton junctions RiBI116	SINC Borough Grade II	2.5km south-east	A triangle of railsides with a good range of wildlife habitats, including scrub and grassland.
Feltham Railsides HoBI114	SINC Borough Grade II	2.6km south-east	Railsides with a mixture of grassland, scrub and trees, forming an important green corridor.
Airlinks Ponds HoL09	SINC Local	2.9km north-east	Two reed-fringed ponds on a golf course. Likely to hold good communities of insect assemblages.
Bolingbroke Way Sunken Pasture HiBI142	SINC Borough Grade II	2.9km north	A lightly horse-grazed meadow, sunken below the level of the adjacent roads. Good vegetation diversity and structure, with open scrub and some decaying timber present.
Feltham Hill Carr and Croft Farm. HoBI105	SINC Borough Grade II	2.9km south	An attractive mix of flower-rich grassland, willow woodland and scrub.
Lower Feltham Brook HoL06	SINC Local	3.0km south	A small stream flowing through a grassy open space.
Little Britain M043	SINC Metropolitan	3.0km north	A variety of habitats including lakes, rivers, scrub, areas of wasteland, woodland and neutral grassland. The Colne and Frays rivers are clean, fast flowing and support an interesting range of marginal habitats, including wet woodland.
River Pinn and Manor Farm Pastures HiBI107	SINC Borough Grade II	3.0km north	Stretch of the river bordered by open grassland and a patchwork of other habitats.
Stockley Park Country Park HiBI112	SINC Borough Grade II	3.0km north	A large, hilly country park with grassland and other habitats including tall herbs, scrub, trees and hedgerows.

Site	Designation	Distance (km) and bearing from scheme	Reason for designation from citations
Inwood Park HoL11	SINC Local	3.1km east	A park with meadows and areas of planted woodland, providing access to nature in a densely built-up part of Hounslow.
Hanworth Park and the Longford River HoBII04	SINC Borough Grade II	3.1km south	Diverse grassland with characteristics of being acidic. Contains a small wet willow wood and a section of the Longford River.
Moor Lane Nature Reserve	SNCI	3.2km south-west	A Wetland Nature Reserve with two mesotrophic lakes and a pond with associated ditch. Willows and other broadleaved tree species surround the lakes. This site was selected for its diverse wetland habitat. The site is important in the local area being close to several large water bodies including three reservoirs to the north. It is potentially important for wintering wildfowl.
Shortwood Common North	SNCI	3.2km south	Restorable remnant of alluvial meadow grassland contiguous with Shortwood Common SSSI.
Hilda May Lake	SNCI	3.3km south-west	A Wetland Nature Reserve lake with one large vegetated island and two small tree covered islands. The lake has narrow strips of aquatic vegetation fringe the water margins. Parts of this nature reserve have been planted with native and non-native trees between 10 and 50 years old. It is a valuable nesting area for wildfowl. The site contains a range of habitats with four country rarities of which one has been identified as nationally scarce.
Birch Green by River Ash	SNCI	3.3km south-west	Sheep-grazed, tussocky, wet grassland with and hills lying between the River Ash and water channel. Areas of the river have diverse emergent flora. The type of habitat found at this site is uncommon and declining in the County.
West of Queen Mary Reservoir	SNCI	3.3km south	Complex of lakes, scrub and grassland with ruderal communities created by old gravel workings. The site is adjacent to the Queen Mary Reservoir. Reedbed and swamp vegetation supports a good variety of aquatic species.
Norwood Hall Woodland EaL05	SINC Local	3.6km north-east	Secondary woodland with a variety of trees and shrubs.
St. Mary the Virgin Churchyard, Norwood Green EaBI18	SINC Borough Grade I	3.8km north-east	A very attractive churchyard with flowery grassland and seven fern species.
Castle Way Ponds HoL10	SINC Local	3.8km south	Three ancient ponds linked by weirs and surrounded by woodland.
Queen Mary Reservoir	SNCI	3.8km south	A large body of open water with tightly grazed slopes, willow scrub and some planted trees and was selected for its importance to wildfowl and visiting seabirds.
Church Lammas	SNCI	3.8km south	This site consists of lakes surrounded by species rich grassland and woodland. The site supports a swamp and reedbed habitats and is also a site that serves as Accessible Natural Greenspace within an urban area.
Kempton Park Chalk Grassland HoBI14	SINC Borough Grade I	3.9km south-east	A small patch of flower-rich chalk grassland; the only calcereous grassland in Hounslow.

Site	Designation	Distance (km) and bearing from scheme	Reason for designation from citations
Tentelow Lane Woodland and Meadow EaBI04	SINC Borough Grade I	4.0km north-east	Ancient woodland with bluebells and a meadow with a variety of grassland types.
Kempton Waterworks M078	SINC Metropolitan	4.0km south-east	Within an internationally important site for wintering waterfowl, while the passage and breeding birds are also of great interest.
Osterley Park HoBI08	SINC Borough Grade I	4.0km east	An attractive landscaped park with several ponds and lakes, areas of woodland and some veteran trees.
Avenue Road Hedge EaL04	SINC Local	4.0km north-east	Remnants of an ancient hedgerow surviving in a heavily built-up area.
Southall railsides EaBI18	SINC Borough Grade II	4.0km north-east	Good ruderal communities on the tracks and in adjacent land in the west.
Jersey Gardens HoL04	SINC Local	4.0km north-east	Attractive ornamental gardens with a good range of common birds.
Twickenham Cemetery RiL22	SINC Local	4.0km south-east	An attractive cemetery, with an abundance of wild flowers and trees.
Ashford Plant	SNCI	4.0km south	Eutrophic (nutrient rich) lakes with steep sides and surrounded by willows and other broadleaved trees, Selected for its importance for wintering wildfowl including shoveler. The sites proximity to the Queen Mary Reservoir SNCI and near other sites of the South West London Waterbodies SPA is important.
Hampton Common RiL23	SINC Local	4.1km south	A park with hedges and trees surviving from a former agricultural landscape.
St Mary's, Wood End HiL01	SINC Local	4.1km north	A complex of open spaces with a good variety of wildlife habitats.
Longford River in Richmond RiBI02	SINC Borough Grade II	4.1km south-east	A section of the Longford River with a wide range of wetland plants and good fish populations.
Fulwell and Twickenham Golf Courses RiBI03	SINC Borough Grade II	4.1km south-east	Contain some fine acid grassland with a areas of heather ( <i>Calluna vulgaris</i> ). Small areas of woodland, scrub, several wet ditches and a pond are also present.
Oak Avenue Local Nature Reserve RiBI14	SINC Borough Grade II	4.2km south	A fine educational nature reserve with a good range of wildlife habitats, created on a former derelict site.
Whittle Road Park EaL38	SINC Local	4.2km east	Rough grassland which supports good populations of invertebrates.
Uxbridge Road Scrub, Hayes HiBI47	SINC Borough Grade II	4.3km north	An inaccessible area of impenetrable scrub land. Provides shelter for a range of birds and mammals.
Kempton Lake and Half Moon Covert	SNCI	4.4km south	Eutrophic lake with marginal vegetation in Kempton Racecourse isolated by an area of broadleaved woodland.

Site	Designation	Distance (km) and bearing from scheme	Reason for designation from citations
Southall Park Nature Conservation Area EaL26	SINC Local	4.5km north-east	A section of a public park which is managed for nature conservation with a rough meadow and a pond.
London's Canals M006	Site of Importance for Nature Conservation (SINC) Metropolitan	4.5km north-east	Canals that support a wide range of aquatic flora, amongst which are found a number of locally uncommon species.
Feltham Marshalling Yards M007	SINC Metropolitan	4.5km south-east	An extensive wasteland with a good range of habitats, from ruderal and tall herb communities, through acid grassland and scrub to mature birch woodland. The site has well-developed lichen communities and has very diverse flora.
Mogden Sewage Works HoBI06	SINC Borough Grade I	4.5km east	A large sewage works, providing a good range of habitats for birds.
Runnymede (including Cooper's Hill and Cooper's Hill Slopes)	SNCI	4.6km south-west	A large area of unimproved grassland with small remnants of ancient semi-natural woodland. The site borders a SSSI and forms part of a much larger matrix of similar habitats.
River Thames	SNCI	4.7km south-west	The Thames supports a range of BAP priority species including the European eel, Atlantic salmon ( <i>Salmo salar</i> ), sea trout ( <i>Salmo trutta</i> ) and depressed river mussel ( <i>Pseudanodonta complanata</i> ). It also supports Red Data Book macro-invertebrates. The fringing habitats provide a corridor for species migration and act as a buffer zone to protect the riverine environment where-as the river itself provides an important highway for migrating fish and acts as a corridor for migratory birds. The SNCI boundary includes the river (to the top of the bank) as well as the semi-natural habitats associated with the towpath.
St Mary's Wood and the Boundary Stream HoBI11	SINC Borough Grade I	4.9km east	A clear, fast-flowing stream fringed with willows. A site known to support kingfishers ( <i>Alcedo atthis</i> ).
Yeading Brook Meadows M051	SINC Metropolitan	5.0km north	An extensive area of meadows and pastures, divided by old hedges, on the floodplain of the Yeading Brook. The wetter fields support some interesting plants.
Brent River Park South: Glade Lane Canalside Park EaBI10C	SINC Borough Grade II	5.0km north-east	A mixture of wildlife habitats (grassland, tall herb, hedges, pond and wasteland) in and adjacent to Glade Lane Canalside Park.
Duke of Northumberland's River north of Kneller Road. RiBI04	SINC Borough Grade I	5.0km east	A section of the Duke of Northumberland's River with an outstanding variety of aquatic plants.

Site	Designation	Distance (km) and bearing from scheme	Reason for designation from citations
Duke of Northumberland's River at Woodlands HoBII03	SINC Borough Grade II	5.0km east	A narrow section of river with abundant aquatic vegetation.
Lake Farm Country Park HiBI18	SINC Borough Grade I	5.0km north	An extensive formerly agriculture area managed for nature conservation.
Piccadilly Lane Railsides in Hounslow HoBII12	SINC Borough Grade II	5.0km east	Railsides with a mixture of woodland, scrub and grassland forming a green corridor.
Hounslow Loop Railsides HoBII13	SINC Borough Grade II	5.0km east	Railsides with a mix of grassland, scrub and tall herbs, forming an important green corridor. Japanese knotweed ( <i>Fallopia japonica</i> ) is known to be present on site.

### 3.3 Priority Habitats

Table 3.3 and Biodiversity Figure 9 show a list of Priority Habitats present within the proposed scheme footprint, and at distance buffers 0-2km and 2-5km.

**Table 3.3 - Priority Habitats within 5km of the Heathrow NWR scheme.**

Priority Habitat type	Heathrow Airport Ltd.		
	Footprint	0-2km	2-5km
Coastal and floodplain grazing marsh	Absent	Present	Present
Deciduous woodland	Present	Present	Present
Good quality semi-improved grassland	Absent	Present	Present
Lowland calcareous grassland	Absent	Present	Present
Lowland dry acid grassland	Absent	Absent	Present
Lowland fen	Absent	Present	Absent
Lowland heathland	Absent	Present	Present
Lowland meadows	Absent	Present	Present
Purple moor grass and rush pasture	Absent	Absent	Absent
Reedbeds	Absent	Present	Present
Traditional orchards	Absent	Present	Present

Within the scheme footprint, the only Priority Habitat type present is deciduous woodland, but all other UK Priority Habitats are present within 5km except the habitat type associated with upland regions. For habitats of principal importance for biodiversity within the land take area, the following figures have been provided by HAL: 13km of rivers; 34 ha of mixed deciduous woodland; and, 1.5 ha of traditional orchard.

### 3.4 Protected and notable species

Appendix A provides an extensive list of protected species recorded within 2km of the scheme boundary during the last 20 years, sourced from the Biological Records Centres. Key species include various bats, otter, water vole, reptiles (including grass snake and slow worm), and various species of birds.

HAL identified pennyroyal present at the Lower Colne SINC. This is a nationally rare plant species, listed as a UK Priority Species by the Joint Nature Conservation Committee (JNCC), and species of Principal Importance for the purpose of conserving biodiversity under Section 41 of the NERC Act (2006). This plant is also protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended).



### 3.5 Ancient and Semi Ancient Woodland

Biodiversity Figure 10 shows areas of ancient semi-natural woodland within 5km of the Heathrow NWR. The Heathrow NWR proposal has three areas of ancient semi-ancient woodland within 5km of the proposed footprint.

### 3.6 National Character Areas and Trends

#### Key characteristics

Heathrow Airport sits within the *Northern Thames Basin* (No. 111) (Natural England, 2013a) and the *Thames Valley* character area (No. 115) (Natural England, 2012). Table 3.4 outlines the key characteristics of these areas.

**Table 3.4 - Summary of key characteristics of the National Character Areas for Heathrow NWR scheme.**

Northern Thames Basin	Thames Valley
A varied landform with a wide plateau divided by river valleys. There are prominent hills and ridges in the north-west and extensive tracts of flat land in the south. A series of valleys contain the major rivers Ver, Colne, Lea, Stour and Roman, along with numerous springs.	Hydrological floodplain of the river Thames as a landscape feature providing unity to the large areas of fragmented poor agricultural land.
Acidic soils produced by areas of thick clay result in the retention of areas of ancient woodland. Areas capped by glacial sand and gravels are nutrient poor, free draining soils which support remnant lowland heathlands. Areas with alluvial deposits are well drained and fertile.	The western Thames valley is wide and flat with the river barely discernible, occupying only a small part of the wider geological floodplain.
The pattern of woodlands is varied across the area including considerable ancient semi-natural woodland.	Woodlands characterise the north-western area, the wooded character extending up the southern edge of the Chiltern Hills.
The field pattern is varied, reflecting the historical activity of the area. Arable land predominates in the Hertfordshire plateaux, parts of London Clay lowlands and Essex heathlands. Grasslands are characteristic of the river valleys.	To the south the open Thames floodplain dominates with its associated flat grazing land becoming characterised by a number of formal historic landscapes on higher ground such as Windsor Park.
There is a diverse range of semi-natural habitat including ancient woodland, lowland heath and floodplain grazing marsh. These all provide important habitats for a wide of species including great crested newt, water vole, dormice and otter.	Towards London in the east the natural character of the area is overtaken by urban influences; a dense network of roads including the M25 motorway corridor, Heathrow airport, railway lines, golf courses, pylon lines, reservoirs, extensive mineral extraction and numerous flooded gravel pits.

## Trends

The Northern Thames Basin and Thames Valley NCAs identify key ecological trends for the area. These are summarised in Table 3.5, below.

**Table 3.5 Northern Thames Basin and Thames Valley NCAs – Ecological features and trends**

Feature	Trend	
	Northern Thames Basin	Thames Valley
Trees and woodland	Woodland cover is extensive across the Hertfordshire plateaux and wooded hills and ridges of Essex. Approximately 50% of woodland cover is on ancient woodland sites, ~40% of which are covered by a woodland grant scheme. Management agreements are in place to maintain the woodland character, although deer are increasing pressure on woodlands.	Woodland quality has been enhanced and the area it covers has increased as a result of the English Woodland Grant Scheme, regulated by the Forestry Commission. Although this suggests the wooded character of the area is strengthening it is noted that the potential for the creation of new woodland is low.
Boundary features	Hedgerows are the main boundary feature in the area followed by ditches and woodland. Only two percent of these features were under a Countryside Stewardship Capital agreement for linear features between 1999 and 2003.	Field boundaries are predominantly hedgerows although it is thought that this resource has been neglected given the fairly small proportion of field boundaries within any kind of Environmental Stewardship scheme (~5%).
Agriculture	Arable and pasture land is found across the area. There has been a drop in mixed and general cropping and horticulture since 1998, although the rate of grassland loss has slowed and the mix of farm holding types has stabilised.  There has been a significant reduction in livestock numbers (the number of cattle has decreased 52% between 2000 and 2009), in addition to a decrease in the intensity of grazing.	There are limited farming activities within the area due to its urban nature which continues to erode the agricultural character. Agriculture within the M25 motorway has largely been lost. Between 2000 and 2009 the area of land devoted for farming fell by 5%.
Semi-natural habitats	There have been reductions in heathland extent and quality, although restoration projects are underway in Essex under Environmental Stewardships.  Dense 'high forest' has resulted from a lack of management of coppice woodlands in Hertfordshire and Essex. This, along with the high numbers of deer in woodland and rural areas could be a contributing factor to the lack of shrubs and trees within the NCA. Semi-natural woodland has been dramatically reduced; particularly in Essex.  The majority of the SSSIs within the NCA are in favourable condition, only 7% are classified as unfavourable declining or unchanged.	Many of the area's SSSIs are broadleaved woodlands, which are generally in favourable condition. Acid grassland SSSIs are also present in relatively high numbers but tend to be in unfavourable condition. A decline in natural reedbeds is beginning to be reversed through conservation efforts. Heathlands represent a very small area (~70 ha) but its proximity to the Thames Basin Heaths SPA makes it significant.

Feature	Trend	
	Northern Thames Basin	Thames Valley
Coast and Rivers	Agri-environmental agreements have enhanced rivers and coastal features. Nitrates, invasive species, recreational activities such as boating and morphological alterations are having detrimental impact on the water quality and ecology of the rivers.	The area is under intense pressure for water with almost all rivers being heavily modified and suffering from pollution and low flows which may impact on ecology such as migratory fish species.
Invasive / non-native species	Invasive species such as floating pennywort ( <i>Hydrocotyle ranunculoides</i> ) and Himalayan balsam ( <i>Impatiens glandulifera</i> ) grow alongside river banks creating a monoculture and increase sedimentation.	Japanese knotweed has doubled its distribution over the last twenty years. Non-native crayfish species are increasing their range, along with freshwater shrimp species and Chinese mitten crabs ( <i>Eriocheir sinensis</i> ).
Minerals	In London Clay lowlands, mineral extraction is replacing some farmland. Previous mineral sites are now being used as geology and wildlife nature reserves.	Gravel extraction is an important industry within the area, and the restored sites provide value wildlife habitats.

## Drivers

The Northern Thames Basin and Thames Valley NCAs identify key drivers for change in the area, these are summarised in Table 3.6.

**Table 3.6 Thames Valley NCA – Drivers of change**

Driver	Effect	
	Northern Thames Basin	Thames Valley
Climate change	<p>Woodland habitats may have increased above ground biomass due to increased carbon dioxide and nitrogen availability which may consequently impact on ground or lower growing flora.</p> <p>Wetlands and open water habitats and associated species are likely to have to cope with greater water level fluctuations. This may have an adverse effect on great crested newts in particular.</p> <p>Inner London areas are likely to experience higher temperatures, consequently resulting in species changes, including exotic invasive species such as parakeets (<i>Psittacula krameri</i>).</p>	<p>Peak river flows are predicted to increase by 20% due to milder, wetter winters, with intense summer storm events leading to flash floods.</p> <p>An increase in the frequency and severity of storm events and drought conditions may lead to increased loss of woodland trees (particularly shallow-rooted beech (<i>Fagus sylvatica</i>)).</p> <p>Drier summers and higher temperatures may impact the area's semi-natural wetland habitats such as wet meadows.</p>
Urban development	Urban development and associated infrastructure may result in increased habitat fragmentation and disturbance issues.	Urban development and associated infrastructure may result in increased habitat fragmentation and disturbance issues.
Recreation	Many semi-natural habitats including woodlands have been lost to recreational development; golf courses in particular. Recreational activities such as boating can also lead to increased rates of sedimentation within watercourses.	There is a trend in movement from agricultural, common and heath land into horse pasture and golf course developments. Increased use of large water bodies for recreation results in increased disturbance to waterfowl.

### 3.7 Conclusions

The Heathrow NWR scheme encompasses and is surrounded by 54 statutory designated sites and 80 non-statutory designated sites. There are several records of notable of protected species within the search area. Deciduous woodland, a Priority Habitat, is located within the footprint of the proposal; other Priority Habitats within the immediate vicinity include lowland meadows and reed beds on the site boundary. There is a small amount of ancient woodland within 2km of the scheme. Changes to the NCAs within which Heathrow airport is located are driven by climate change leading to potential changes in species composition due to higher temperatures and greater fluctuations in water levels. Urban development is leading towards habitat fragmentation and an increase in recreational use of undeveloped land leading to poorly managed woodland and increased disturbance and sedimentation of waterbodies.

## 4 Heathrow Airport Extended Northern Runway

### 4.1 Designated Statutory Sites

Table 4.1 lists the designated sites within the relevant buffer areas to the Heathrow ENR boundary. There are eight sites of importance to biodiversity at International (European) level within 15km of the scheme, these are: the South West London Waterbodies SPA and Ramsar; Windsor Forest and Great Park SAC; Burnham Beeches SAC; Thursley, Ash, Pirbright and Chobham SAC; Wimbledon Common SAC; Richmond Park SAC; and, the Thames Basin Heaths SPA. The South West London Waterbodies SPA and Ramsar site is located on the scheme boundary. This site has internationally important numbers of the ducks gadwall and shoveler (the qualifying interest species of the SPA). There are no European sites within 15-30km of the airport boundary designated for important bat populations.

There are 39 SSSIs and four NNRs within 15km of the proposed scheme. There are eight SSSIs within 5km with the following four of these within 2km of the proposed boundary: Staines Moor SSSI, which is within the proposed scheme footprint; Wraysbury and Hythe End Gravel Pits SSSI; Wraysbury No 1 Gravel Pit SSSI; and, Wraysbury Reservoir SSSI. All SSSIs within the 5km buffer are in either *favourable* or *unfavourable recovering* status barring a small section (under 2%) of Staines Moor SSSI in unfavourable declining condition.

There are eight LNRs within 5km of the scheme boundary. The Arthur Jacobs LNR is within the scheme footprint, with the following three within 2km: Cranebank LNR; Bedfont Lakes LNR; Hounslow Heath LNR.

The location of all statutory designated sites is shown in Biodiversity Figure 11 in the accompanying Biodiversity Figures report.

### 4.2 Non-statutory Designated Sites

The Biological Records Centres have provided information on 85 non-statutory sites within 5km of the scheme boundary. This information is presented in Table 4.2. The breakdown is: five Local Wildlife Sites (LWS); 60 Sites of Importance for Nature Conservation (SINC), one of which, Lower Colne Metropolitan SINC falls within the proposed scheme footprint; 18 Sites of Nature Conservation Importance (SNCI); and, two Conservation Target Areas (CTA).

The locations of all non-statutory designated sites are shown in Biodiversity Figures 12 and 13.

**Table 4.1 - Heathrow ENR scheme: Baseline search of statutory designated sites**

Site	Designation	Distance and bearing from proposal	Reason for designation from citation
<b>Sites within 0-2km of proposed works</b>			
Arthur Jacobs Nature Reserve	LNR	0 m west (in footprint)	Consists of wet woodland, lagoons and has a good selection of habitats for invertebrates.
Staines Moor	SSSI	1.3 m south	A semi-natural stretch of the River Colne which flows through Staines Moor and three adjacent reservoirs. Staines Moor represents the largest area of alluvial meadows in Surrey and supports a rich flora while the reservoirs hold nationally important populations of wintering wildfowl. A pond at the site carries aquatic flora which is of national importance; this flora includes one plant which is extremely rare in Britain.
Cranebank	LNR	0 m east	Comprised of flood meadows. An important winter flood site forming ox-bow lakes with many species of plants and invertebrates.
South West London Waterbodies	SPA & Ramsar	0 m south	Used regularly by 1% or more of the biogeographical populations of gadwall and shoveler.
Wraysbury Reservoir	SSSI	0 m south-west (in footprint)	The site supports nationally important numbers of wintering cormorant, great crested grebe and shoveler.
Bedfont Lakes	LNR	1km south	Comprises willow carr, reedbeds, lakes, scrubs, neutral grassland, wildflower meadow and bare soil.
Wraysbury and Hythe End Gravel Pits	SSSI (part of SWLWB)	1km west	Comprised of a mosaic of open water, islands, grassland, scrub and woodland within an area of former gravel extraction. The site supports nationally important numbers of wintering wildfowl, together with an important assemblage of breeding birds associated with open waters and wetland habitats. The site also supports two nationally scarce invertebrates and a number of locally uncommon plants
Hounslow Heath	LNR	1.7km east	Comprised of heathland and acid grassland with hay meadows, scrub, woodland and marsh. The site has a rich variety of heathland flora, reptiles, scrubland, birds and invertebrates.
Wraysbury No. 1 Gravel Pit	SSSI (part of SWLWB)	1.8km south west	Wraysbury No 1 Gravel Pit is of national importance for wintering gadwall. The site is also locally important for a number of other wintering bird species.
<b>Sites within 2-5km of proposed works</b>			
Pevensley Road	LNR	2.7km south east	Classed as greenspace with meadow scrubland, woodland and wetland running alongside the river Cane.
Langham Pond	SSSI	3.3km south west	The pond consists of good water clarity with stands of ash and willow woodland providing shade to some areas of the pond. The rest of the pond provides areas for good vegetation communities.
Crane Park Island	LNR	3.7km south east	A small island surrounded by the River Crane. Habitats include grassland, wet woodland, reedbed and a pond.
Kingcup Meadows and Oldhouse Wood	SSSI	4.3km north	A mosaic of habitats including woodland, unimproved pastures and semi and unimproved meadowland. The fields are comprised of dry grassland, wet grassland and areas of fen and swampy vegetation. Oldhouse Wood retains a wide range of native trees and shrubs, along with many woodland species indicative of ancient woodland.
Thorpe Hay Meadows	SSSI	4.4km south	A diverse range of plants is present, including some uncommon species and there are several unusual features which make the site of special interest. A feature of the site is the occurrence of reed in the meadow.

Site	Designation	Distance and bearing from proposal	Reason for designation from citation
Herschel Park	LNR	4.7km west	Grade II listed historic garden.
Oak Avenue Hampton	LNR	4.9km south east	Landscaped with the help of local groups and volunteers to include an area of wildflower meadow and hedgerow.
Windsor Forest and Great Park	SAC	4.9km west	Designated for its old acidophilous oak woods with the largest number of veteran oaks in Britain. Also designated for having the largest known population of Violet click beetles in the UK. It is listed as the most important site in the UK for fauna associated with decaying timber on ancient trees.
Windsor Forest and Great Park	SSSI	4.9km west	Forms part of the largest continuous tract of woodland and parkland in Berkshire. The site provides habitat for a range of rare species of and a rich assemblage of other Red Data book beetles and flies. In addition there are areas of unimproved acid grassland.
<b>Sites within 5-15km of proposed works</b>			
Kempton Park Reservoirs	SSSI	5.2km south east	Huge swathes of reedland habitat, the site is regularly visited by Bearded Tits, Sedge Warblers and a myriad of other reed dependant species.
Thorpe Park No.1 Gravel Pit	SSSI (part of SWLWB)	5.9km south	Former gravel pit of national importance for wintering gadwall.
Syon Park	SSSI	6.6km east	The only known area of tall grass washland along the Thames in Greater London; it contains several invertebrate species with a restricted distribution, both locally and nationally.
Black Park	SSSI	6.8km north west	The site consists of a variety of habitats comprising dry and wet heath, alder carr, mixed and coniferous woodland and small areas of acid grassland. They support specialised communities of plants and animals, including many that are rare or uncommon in the county.
Dumsey Meadows	SSSI	7.3km south	Unimproved neutral grassland. The site consists mainly of crested dog's-tail common knapweed grassland, a plant community now rare in Surrey. Marshy depressions and semi-natural vegetation along the river bank contribute to the species diversity of the site.
Knight and Bessborough Reservoirs	SSSI (part of SWLWB)	7.9km south east	Standing open water. The site is of national importance for wintering shoveler.
Richmond Park	NNR	8.2km east	Notable for its rare deadwood beetle fauna.
Richmond Park	SSSI	8.2km east	Richmond Park is of importance for its diverse deadwood beetle fauna associated with the ancient trees found throughout the parkland. In addition the Park supports the most extensive area of dry acid grassland in Greater London.
Richmond Park	SAC	8.2km east	Richmond Park has a large number of ancient trees with decaying timber. It is at the heart of the south London centre of distribution for stag beetle, and is a site of national importance for the conservation of the fauna of invertebrates associated with the decaying timber of ancient trees.
Stoke Common	SSSI	8.5km north west	Stoke Common is the last remnant of a tract of Heathland (wet and dry heath) formerly extending from Iver Heath to Littleworth Common.
Fray's Farm Meadows	SSSI	8.8km north	One of the last remaining examples of relatively unimproved wet alluvial grassland in Greater London and the Colne Valley. The linear features of the site – ditches, hedges and railway embankment – add further habitat diversity, and contribute to the richness of plants and animals present.
Denham Lock Wood	SSSI	8.8km north	A diverse area of open mire and wet woodland which shows a zonation of wetland habitats occurring rarely in Greater London. The woodland herb flora is particularly varied and reflects subtle differences in topography



Site	Designation	Distance and bearing from proposal	Reason for designation from citation
			and drainage.
Burnham Beeches	NNR	8.9km north west	An area of beech and oak wood pasture with pockets of heathland and sphagnum bog, located very close to large centres of urban population.
Burnham Beeches	SSSI	10.1km north west	Acidic soils which support mature and developing woodland, old coppice, scrub and heath. There are ancient oak and beech pollards of which the latter are a celebrated feature of international renown. Fragments of wet heath and bog, as well as an alder wood and a number of ponds coincide with springs and wet flushes, and with a small stream which in places cuts down to the Chalk producing swallowholes. This complex of habitats, of which none are widely represented in Buckinghamshire and one (the ancient pollards) is virtually unique, harbours numerous plants, birds and invertebrates of regional importance, as well as several nationally rare species.
Burnham Beeches	SAC	10.1km north west	Designated for its beech forests with holly. Surveys have shown that it is one of the richest sites for saproxylic invertebrates in the UK, including 14 Red Data Book species. It is also an area of local importance for moss communities.
Chobham Common	SSSI	10.6km south west	Forms one of the largest surviving heathlands in the Thames basin. It supports a rich variety of characteristic heathland plants and animals, including many which are rare or scarce.
Chobham Common	NNR	10.6km south west	The NNR is an extensive open area of lowland heath.
Thursley, ash, Pirbright and Chobham	SAC	10.6km south west	Designated due to its lowland northern Atlantic wet heaths, European dry heaths and examples of depressions on peat substrates of the <i>Rhynchosporion</i> .
Old Rectory Meadows	SSSI	10.7km north	Contains a range of grassland types, notably base-rich and poor marsh, wet alluvial meadows and water meadows with grazed wet and damp meadows, as well as alder carr woodland.
Esher Commons	SSSI	11.2km south east	Heathland, grassland, scrub, woodland and areas of marsh, bog, and open water, present a rich variety of habitats supporting many species of plants and animals. In particular, this site is famous as an important area for invertebrates and has been studied for many years.
Ruislip Woods	SSSI	11.5km north	An area of ancient semi-natural woodland with other semi-natural habitats, mostly notably acidic grass-heath mosaic and areas of wetland. These habitats, particularly the woodland, contain a number of plant and insect species that are rare or scarce in a national or local context.
Ruislip Woods	NNR	11.5km north	Structurally diverse and species-rich ancient woodland.
Mid Colne Valley	SSSI	11.5km north	The Mid Colne Valley is of significant ornithological interest, particularly for the diversity of breeding woodland and wetland birds, and for the numbers of wintering wildfowl. On the eastern valley slope is one of the last remaining examples of unimproved chalk grassland in Greater London.
Wimbledon Common	SSSI	11.9km east	The most extensive area of open, wet heath on acidic soil in Greater London. The site also contains a variety of other acidic heath and grassland communities reflecting the variations in geology, drainage and management.
Wimbledon Common	SAC	11.9km east	Designated for the presence of stag beetle. The area contains a large number of old trees and fallen decaying timber. Although not designated for having dry and wet heaths, these are also present on site.
Chawridge Bourne	SSSI	12.2km west	An area of unimproved grassland, scrub and broadleaved woodland containing species of plants local or rare in east Berkshire.

Site	Designation	Distance and bearing from proposal	Reason for designation from citation
Barn Elms Wetland Centre	SSSI	12.3km east	Barn Elms Wetland Centre comprises a mosaic of different wetland habitats created on the site of redundant artificial reservoir basins. The majority of the site comprises areas of standing open water, grazing marsh and reedbed. Other significant habitats include carr woodland, scrub and mesotrophic grassland. Supports nationally important numbers of shoveler.
Bray Meadows	SSSI	12.5km north west	Species-rich unimproved meadows which support a very uncommon type of grassland with a distinctive flora which is particularly characteristic of the calcareous alluvium of the lower Thames floodplain.
Bray Pennyroyal Field	SSSI	12.5km west	The sole Berkshire locality for the nationally rare pennyroyal, a species included in Schedule 8 under the Wildlife and Countryside Act 1981 and listed in the British Red Data Book of vascular plants.
Littleworth Common	SSSI	12.6km north west	Formerly open heathland, developed through natural succession into birch-oak woodland. Wet flushes and ponds support communities which are both rare and declining in lowland Britain. Littleworth Common is also one of the last recorded locations for the nationally rare starfruit.
South Lodge Pit	SSSI	12.7km north west	The only known British example of a late Santonian-early Campanian chalk phosphorite (calcium phosphate) deposit
Harefield Pit	SSSI	12.9 km north	Harefield Pit provides a key section in the London Basin for a sequence through the Upper Chalk, Reading Beds and London Clay. It is also the only known site for calcareous floral remains in the Reading Beds
Horsell Common	SSSI	13.4km south	Rich mosaic of heathland habitats, ranging from open heath and acidic grassland to bog, heathland pools, and secondary woodland and scrub. It supports a variety of characteristic heathland plants and animals, including several which are local or rare.
Englemere Pond	SSSI	13.4km south west	A large pond surrounded by a wide fringe of reedswamp dominated by common reed. Away from the open water the reedswamp grades into an interesting plant community typical of base-poor conditions. The transition from open water through base-poor wetland to dry ground is an exceptionally good example of this type of habitat which is relatively scarce in the lowlands.
Ockham and Wisley Commons	SSSI	14.1km south	This site consists of a large tract of heathland lying between the Mole and Wey Rivers near Cobham, containing areas of heath, bog, open water, secondary woodland and scrub. This variety of habitats supports a rich community of heathland plants and animals, including a large number of rare and local insects.
Old Park Wood	SSSI	14.2km north	Floristically rich ancient woodland.
Thames Basin Heath	SPA	14.5km south	A mixture of wet and dry heathland habitats, scrub and woodland. Supports important breeding populations of Nightjar, Woodlark, and Dartford Warbler.
Swinley Park and Brick Pits	SSSI	14.5km south west	The most important concentration of ancient broadleaved trees remaining in the southern sector of Windsor Forest.
Great Thrift Wood	SSSI	14.7km west	Damp, ancient, coppiced woodland.
Brent Reservoir	SSSI	14.8km north east	There is a good breeding bird assemblage on the open water and lowland fen habitats across the site.
<b>Sites within 15-30km of proposed works</b>			
No sites designated due to bats found.			

**Table 4.2 Heathrow ENR scheme: Baseline search of non-statutory designated sites within 5km of the existing footprint.**

Site	Designation	Distance (km) and bearing from scheme	Reason for designation
Lower Colne M059	SINC Metropolitan	Within footprint	One of the finest river systems in London, connecting gravel pits and areas of wet woodland and supporting a remarkable range of wetland plan and animals.
Bedfont Lakes Country Park M077	SINC Metropolitan	0km south	A restored gravel extraction and land-fill site, now managed as a country park. Of considerable ornithological interest. Water voles have recently been introduced.
Hounslow Heath M081	SINC Metropolitan	0km east	An extensive area of acid and neutral grassland valuable for birds, reptiles and rare plants.
Duke of Nothumberland's River at Bedfont M149	SINC Metropolitan	0km east	A section of river with excellent water quality. Provides a home for water voles, a variety of fish and aquatic plants, and an exceptional range of aquatic insects.
Cains Lane HoL05	SINC Local	0.1km south	An area of scrub and rough grassland beside Heathrow Airport.
Field Close Open Space roughs HiL14	SINC Local	0.2km north	An area of rough grassland and scrub, which link two large parks.
East of Poyle Meadows	SNCI	0.5km south-west	A site with a diversity of habitats including pond, swamp, grassland and scrub. This area was selected for its diverse wetland habitat including NVC swamp communities. The site is an important buffer between the M25 motorway and the Staines Moor SSSI.
Stanwell II	SNCI	0.5km south	Mosaic of gravel pits and ditches supporting a range of marginal vegetation including fen. There is approximately five hectares of fen vegetation which is of County importance. The site is also important for other wetland habitats, such as reed beds which support reed bunting ( <i>Emberiza schoeniclus</i> ).
Greenhams Fishing Pond	SNCI	0.5km south	Remnants of old gravel working now a fishing lake in the corner of a field used for grazing. The site is selected for its wetland habitat which compliments the wider mosaic of wetland habitats present in the surrounding M25 motorway corridor area.
Princes Lake	SNCI	0.7km south	Large body of standing water with bare ground, tall grass, scrub and dense willows. A large island in the centre of the lake provides a valuable refuge for nesting and rearing birds. This site is selected as a wetland site supporting wintering water bird assemblages of county importance including shoveler and gadwall which are on the conservation concern list for Surrey.
River Colne (From Country Boundary to Staines Moor), Stanwell Moor	SNCI	0.8km south	Environment Agency (EA) data up to 2009 shows this section of river to support a diverse fish community including European eel ( <i>Anguilla Anguilla</i> ) and to be a spawning site for barbel ( <i>Barbus barbus</i> ). This site also supports a diverse macrophyte community.
Cranford Lane Gravel Workins HiBI149	SINC Borough Grade II	1.0km north	Spoil heaps that have been colonised by wild flowers and scrub. A meadow is present to the north.

Site	Designation	Distance (km) and bearing from scheme	Reason for designation
West of Poyle Meadows	SNCI	1.0km south-west	A natural river channel with good marginal vegetation along the western bank. Adjoining grassland supports botanical interest; the site was selected because the river supported a diverse macro-invertebrate diversity. This stretch of river was shown by the Environment Agency to be in the top 13% of UK watercourses due to its macro-invertebrate diversity. This SNCI is an important protective buffer to the SSSI. The site includes the river and an 8 m buffer zone to the west.
Arthure Jacobs Nature	LWS	1.2km west	A restored site showing signs of naturalising. It is dominated by maturing scrub and neutral grassland around a series of wetlands ranging from open waterto swamp. The mosaic and naturalising/maturing nature of the restored/created habitats are likely to be of value to a range of different species groups including birds, dragonflies and reptiles. The site has good public access.
Old Slade Lake	Local Wildlife Site (LWS)	1.5km north	Consists of a complex of flooded gravel pits (Old Slade, Orlitts Lake and Colnbrook West) fringed by secondary woodland, scrub, ruder grassland, tree planning and a stretch of the Colne Brook.
Queen Mother Reservoir	LWS	1.5km west	A large water body providing a refuge for storm driven species and overland passage migrants. It supports a variety of passage waders and winter wildfowl. The reservoir is surrounded by a dry seeded grassland bank which ranges from species poor to moderate.
Stockley Road Rough HiL10	SINC Local	1.5km north	A strip of scrub and rough grassland.
Raleigh Park HoL07	SINC Local	1.5km south	A new landscaped park with large areas of wildflower seeded grassland and stands of young native trees.
Hartlands Wood and Lower Park Farm HoL03	SINC Local	1.5km north-east	A small wood and adjacent field, attracting a variety of bird species.
St George's Meadows, Southlands Arts Centre HiBI140	SINC Borough Grade II	1.5km north	A range of habitats in the grounds of the Southlands Arts Centre near West Drayton.
Colne Brook	LWS	1.8km west	This site forms an important wildlife corridor in an intensively farmed and urban fringe landscape. It comprises a range of noteworthy aquatic, semi-aquatic and riparian habitats including a diverse in-stream system, moderate to species-rich emergent and aquatic communities and small areas of wet woodland and scrub.
Horton and Kingsmead Main and New Lakes	LWS	1.8km south-west	A group of old gravel and silt pits mainly used for recreational activities. They are surrounded by patches of wetland species and are important to over-wintering wildfowl.
Bedfont Pits HoBI04	SINC Borough Grade I	1.9km south	A reed-fringed former gravel pit with willow woodland, providing a home to a good range of birds. Rough grassland surrounding the lake holds interesting plants such as bee orchid ( <i>Ophrys apifera</i> ).
Longford River at Feltham HoBI106	SINC Borough Grade II	1.9km south	A section of river with a good variety of water plants and a population of water voles.
Crane Corridor M076	SINC Metropolitan	2.0km south-east	This corridor of open space around the River Cran combines an excellent variety of wetland habitats, including ponds and lakes, and includes some historic buildings. The river is a stronghold for uncommon aquatic plants.

Site	Designation	Distance (km) and bearing from scheme	Reason for designation
Lower Feltham Rough HoBI05	SINC Borough Grade I	2.0km south	A large area of open land with a variety of wildlife habitats and good populations of birds.
Thornccliffe Rough HoL01	SINC Local	2.0km east	An area of disused land with a mosaic of habitats, providing a diverse flora in a part of the borough with little accessible natural green space.
Wraysbury Reservoir	SNCI	2.1km south-west	This site consists of steeply sloping, terraced improved grassland banks grazed by sheep. The reservoir itself is not part of the SNCI as it is now a designated SSSI. The grassland surrounding the reservoir itself is selected as an important buffer to the SSSI.
Carp Ponds and Broads Dock M056	SINC Metropolitan	2.2km north	A series of lakes and ponds, teeming with plant life, including a number of species which are unusual in London.
Lampton Park HoL12	SINC Local	2.3km east	A large formal park surrounding the Civic Centre, with wilder areas.
Yeading Brook, Minet Country Park and Hitherbroom Park hiBI11	SINC Borough Grade I	2.3km north-east	A site centring on the reclaimed, derelict land of Minet Country Park. Much of the area is recently created rough grassland, with areas of older, more natural meadow.
Stockley Business Park Lakes and Meadows. HiBI150	SINC Borough Grade II	2.3km north	An excellent example of how wildlife habitats can be created in the grounds of a business park.
Houndslow, Feltham and Whitton junctions RiBI16	SINC Borough Grade II	2.5km south-east	A triangle of railsides with a good range of wildlife habitats, including scrub and grassland.
Feltham Railsides HoBI14	SINC Borough Grade II	2.6km south-east	Railsides with a mixture of grassland, scrub and trees, forming an important green corridor.
Airlinks Ponds HoL09	SINC Local	2.9km north-east	Two reed-fringed ponds on a golf course. Likely to hold good communities of insect assemblages.
Bolingbroke Way Sunken Pasture HiBI142	SINC Borough Grade II	2.9km north	A lightly horse-grazed meadow, sunken below the level of the adjacent roads. Good vegetation diversity and structure, with open scrub and some decaying timber present.
Feltham Hill Carr and Croft Farm. HoBI105	SINC Borough Grade II	2.9km south	An attractive mix of flower-rich grassland, willow woodland and scrub.
Lower Feltham Brook HoL06	SINC Local	3.0km south	A small stream flowing through a grassy open space.
Little Britain M043	SINC Metropolitan	3.0km north	A variety of habitats including lakes, rivers, scrub, areas of wasteland, woodland and neutral grassland. The Colne and Frays rivers are clean, fast flowing and support an interesting range of marginal habitats, including wet woodland.

Site	Designation	Distance (km) and bearing from scheme	Reason for designation
River Pinn and Manor Farm Pastures HiBII07	SINC Borough Grade II	3.0km north	Stretch of the river bordered by open grassland and a patchwork of other habitats.
Stockley Park Country Park HiBII12	SINC Borough Grade II	3.0km north	A large, hilly country park with grassland and other habitats including tall herbs, scrub, trees and hedgerows.
Inwood Park HoL11	SINC Local	3.1km east	A park with meadows and areas of planted woodland, providing access to nature in a densely built-up part of Hounslow.
Hanworth Park and the Longford River HoBII04	SINC Borough Grade II	3.1km south	Diverse grassland with characteristics of being acidic. Contains a small wet willow wood and a section of the Longford River.
Moor Lane Nature Reserve	SNCI	3.2km south-west	A Wetland Nature Reserve with two mesotrophic lakes and a pond with associated ditch. Willows and other broadleaved tree species surround the lakes. This site was selected for its diverse wetland habitat. The site is important in the local area being close to several large water bodies including three reservoirs to the north. It is potentially important for wintering wildfowl.
Shortwood Common North	SNCI	3.2km south	Restorable remnant of alluvial meadow grassland contiguous with Shortwood Common SSSI.
Hilda May Lake	SNCI	3.3km south-west	A Wetland Nature Reserve lake with one large vegetated island and two small tree covered islands. The lake has narrow strips of aquatic vegetation fringe the water margins. Parts of this nature reserve have been planted with native and non-native trees between 10 and 50 years old. It is a valuable nesting area for wildfowl. The site contains a range of habitats with four country rarities of which one has been identified as nationally scarce.
Birch Green by River Ash	SNCI	3.3km south-west	Sheep-grazed, tussocky, wet grassland with and hills lying between the River Ash and water channel. Areas of the river have diverse emergent flora. The type of habitat found at this site is uncommon and declining in the County.
West of Queen Mary Reservoir	SNCI	3.3km south	Complex of lakes, scrub and grassland with ruderal communities created by old gravel workings. The site is adjacent to the Queen Mary Reservoir. Reedbed and swamp vegetation supports a good variety of aquatic species.
Norwood Hall Woodland EaL05	SINC Local	3.6km north-east	Secondary woodland with a variety of trees and shrubs.
St. Mary the Virgin Churchyard, Norwood Green EaBII18	SINC Borough Grade I	3.8km north-east	A very attractive churchyard with flowery grassland and seven fern species.
Castle Way Ponds HoL10	SINC Local	3.8km south	Three ancient ponds linked by weirs and surrounded by woodland.
Queen Mary Reservoir	SNCI	3.8km south	A large body of open water with tightly grazed slopes, willow scrub and some planted trees and was selected for its importance to wildfowl and visiting seabirds.
Church Lammas	SNCI	3.8km south	This site consists of lakes surrounded by species rich grassland and woodland. The site supports a swamp and reedbed habitats and is also a site that serves as Accessible Natural Greenspace within an urban area.

Site	Designation	Distance (km) and bearing from scheme	Reason for designation
Kempton Park Chalk Grassland HoBI14	SINC Borough Grade I	3.9km south-east	A small patch of flower-rich chalk grassland; the only calcereous grassland in Hounslow.
Tentelow Lane Woodland and Meadow EaBI04	SINC Borough Grade I	4.0km north-east	Ancient woodland with bluebells and a meadow with a variety of grassland types.
Kempton Waterworks M078	SINC Metropolitan	4.0km south-east	Within an internationally important site for wintering waterfowl, while the passage and breeding birds are also of great interest.
Osterley Park HoBI08	SINC Borough Grade I	4.0km east	An attractive landscaped park with several ponds and lakes, areas of woodland and some veteran trees.
Avenue Road Hedge EaL04	SINC Local	4.0km north-east	Remnants of an ancient hedgerow surviving in a heavily built-up area.
Southall railsides EaBI18	SINC Borough Grade II	4.0km north-east	Good ruderal communities on the tracks and in adjacent land in the west.
Jersey Gardens HoL04	SINC Local	4.0km north-east	Attractive ornamental gardens with a good range of common birds.
Twickenham Cemetery RiL22	SINC Local	4.0km south-east	An attractive cemetery, with an abundance of wild flowers and trees.
Ashford Plant	SNCI	4.0km south	Eutrophic (nutrient rich) lakes with steep sides and surrounded by willows and other broadleaved trees, Selected for its importance for wintering wildfowl including shoveler. The sites proximity to the Queen Mary Reservoir SNCI and near other sites of the South West London Waterbodies SPA is important.
Hampton Common RiL23	SINC Local	4.1km south	A park with hedges and trees surviving from a former agricultural landscape.
St Mary's, Wood End HiL01	SINC Local	4.1km north	A complex of open spaces with a good variety of wildlife habitats.
Longford River in Richmond RiBI02	SINC Borough Grade II	4.1km south-east	A section of the Longford River with a wide range of wetland plants and good fish populations.
Fulwell and Twickenham Golf Courses RiBI03	SINC Borough Grade II	4.1km south-east	Contain some fine acid grassland with a areas of heather ( <i>Calluna vulgaris</i> ). Small areas of woodland, scrub, several wet ditches and a pond are also present.
Oak Avenue Local Nature Reserve RiBI14	SINC Borough Grade II	4.2km south	A fine educational nature reserve with a good range of wildlife habitats, created on a former derelict site.
Whittle Road Park EaL38	SINC Local	4.2km east	Rough grassland which supports good populations of invertebrates.



Site	Designation	Distance (km) and bearing from scheme	Reason for designation
Uxbridge Road Scrub, Hayes HiBI147	SINC Borough Grade II	4.3km north	An inaccessible area of impenetrable scrub land. Provides shelter for a range of birds and mammals.
Kempton Lake and Half Moon Covert	SNCI	4.4km south	Eutrophic lake with marginal vegetation in Kempton Racecourse isolated by an area of broadleaved woodland.
Southall Park Nature Conservation Area EaL26	SINC Local	4.5km north-east	A section of a public park which is managed for nature conservation with a rough meadow and a pond.
London's Canals M006	SINC Metropolitan	4.5km north-east	Canals that support a wide range of aquatic flora, amongst which are found a number of locally uncommon species.
Feltham Marshalling Yards M007	SINC Metropolitan	4.5km south-east	An extensive wasteland with a good range of habitats, from ruderal and tall herb communities, through acid grassland and scrub to mature birch woodland. The site has well-developed lichen communities and has very diverse flora.
Mogden Sewage Works HoBI06	SINC Borough Grade I	4.5km east	A large sewage works, providing a good range of habitats for birds.
Runnymede (including Cooper's Hill and Cooper's Hill Slopes)	SNCI	4.6km south-west	A large area of unimproved grassland with small remnants of ancient semi-natural woodland. The site borders a SSSI and forms part of a much larger matrix of similar habitats.
River Thames	SNCI	4.7km south-west	The Thames supports a range of BAP priority species including the European eel, Atlantic salmon ( <i>Salmo salar</i> ), sea trout ( <i>Salmo trutta</i> ) and depressed river mussel ( <i>Pseudanodonta complanata</i> ). It also supports Red Data Book macro-invertebrates. The fringing habitats provide a corridor for species migration and act as a buffer zone to protect the riverine environment where-as the river itself provides an important highway for migrating fish and acts as a corridor for migratory birds. The SNCI boundary includes the river (to the top of the bank) as well as the semi-natural habitats associated with the towpath.
Bray to Eton Meadows and Pits	CTA	4.8km north-west	Encompassing the main groups of Thames Valley grasslands in East Berkshire. Habitats here include lowland meadow, gravel pits, parkland with planted scrub and wood and fen. There is ornithological interest along the Junilee Roiver. Water voles are also found here.
Windsor Great Park and Woodlands	CTA	4.9km south-west	This area includes Windsore Great Park SSSI. Habitats here include parkland and wood pasture, woodland, acid grassland, lowland meadow, standing water, fen and heathland.
Yeading Brook Meadows M051	SINC Metropolitan	5.0km north	An extensive area of meadows and pastures, divided by old hedges, on the floodplain of the Yeading Brook. The wetter fields support some interesting plants.
Brent River Park South: Glade Lane Canalside Park EaBI10C	SINC Borough Grade II	5.0km north-east	A mixture of wildlife habitats (grassland, tall herb, hedges, pond and wasteland) in and adjacent to Glade Lane Canalside Park.
Duke of Northumberland's River north of Kneller Road. RiBI04	SINC Borough Grade I	5.0km east	A section of the Duke of Northumberland's River with an outstanding variety of aquatic plants.

Site	Designation	Distance (km) and bearing from scheme	Reason for designation
Duke of Northumberland's River at Woodlands HoBII03	SINC Borough Grade II	5.0km east	A narrow section of river with abundant aquatic vegetation.
Lake Farm Country Park HiBI18	SINC Borough Grade I	5.0km north	An extensive formerly agriculture area managed for nature conservation.
Piccadilly Lane Railsides in Hounslow HoBII12	SINC Borough Grade II	5.0km east	Railsides with a mixture of woodland, scrub and grassland forming a green corridor.
Houndslow Loop Railsides HoBII13	SINC Borough Grade II	5.0km east	Railsides with a mix of grassland, scrub and tall herbs, forming an important green corridor. Japanese knotweed ( <i>Fallopia japonica</i> ) is known to be present on site.

### 4.3 Priority Habitats

Table 4.3 shows the list of Priority Habitats which were recorded as present within the proposed Heathrow ENR footprint and distance buffers 0-2km and 2-5km. These are also shown in Biodiversity Figure 14.

**Table 4.3 - Priority Habitats within 5km of the proposed Heathrow Airport Extended Northern Runway scheme**

Priority Habitat type	Heathrow Hub		
	Footprint	0-2km	2-5km
Coastal and floodplain grazing marsh	Absent	Present	Present
Deciduous woodland	Present	Present	Present
Good quality semi-improved grassland	Absent	Present	Present
Lowland calcareous grassland	Absent	Absent	Present
Lowland dry acid grassland	Absent	Present	Present
Lowland fen	Absent	Present	Absent
Lowland heathland	Absent	Present	Present
Lowland meadows	Absent	Present	Present
Purple moor grass and rush pasture	Absent	Absent	Absent
Reedbeds	Absent	Present	Present
Traditional orchards	Absent	Present	Present

In terms of Priority Habitats, the promoter has identified approximately 16.2 ha of deciduous woodland, 0.5 ha of traditional orchard, 8.6 ha of lowland meadows 13 ha of standing water, 7km of river, 6.8km of ditch network, around 6 ha of scrub and 70 ha of pasture / rough grassland would be within the scheme boundary.

### 4.4 Protected and notable species

Appendix A provides an extensive list of protected species recorded within 2km of the scheme boundary during the last 20 years, sourced from the Biological Records Centres. Key species include various bats, otter, water vole, reptiles (including grass snake and slow worm) and various species of birds.

### 4.5 Ancient Semi-natural Woodland

Biodiversity Figure 15 shows areas of ancient semi-natural woodland within 5km of the Heathrow ENR scheme. This information is taken from Natural England's Ancient Woodland Inventory and covers areas of 2 ha and above only. Ancient woodland is present within the 2km and 5km buffers surrounding Heathrow ENR. These areas will be under pressure from development at a local and national scale. Ancient woodland is covered by the National Planning Policy Framework which protects ancient woodland from development leading to irreplaceable change.

## 4.6 National Character Areas and Trends

### Key characteristics

The Heathrow ENR scheme sits within the *Northern Thames Basin* (No. 111) (Natural England, 2013a) and the *Thames Valley* character area (No. 115) (Natural England, 2012). Table 4.4 describes the main characteristics of these areas.

**Table 4.4 Summary of key characteristics of the National Character Areas for Heathrow ENR scheme**

Northern Thames Basin	Thames Valley
A varied landform with a wide plateau divided by river valleys. There are prominent hills and ridges in the north-west and extensive tracts of flat land in the south. A series of valleys contain the major rivers Ver, Colne, Lea, Stour and Roman, along with numerous springs.	Hydrological floodplain of the river Thames as a landscape feature providing unity to the large areas of fragmented poor agricultural land.
Acidic soils produced by areas of thick clay result in the retention of areas of ancient woodland. Areas capped by glacial sand and gravels are nutrient poor, free draining soils which support remnant lowland heathlands. Areas with alluvial deposits are well drained and fertile. The London Basin Chalk aquifer is recharged by the water bearing underlying chalk beds of the character area.	The western Thames valley is wide and flat with the river barely discernible, occupying only a small part of the wider geological floodplain.
The pattern of woodlands is varied across the area including considerable ancient semi-natural woodland.	Woodlands characterise the north-western area, the wooded character extending up the southern edge of the Chiltern Hills.
The field pattern is varied, reflecting the historical activity of the area. Arable land predominates in the Hertfordshire plateaux, parts of London Clay lowlands and Essex heathlands. Grasslands are characteristic of the river valleys.	To the south the open Thames floodplain dominates with its associated flat grazing land becoming characterised by a number of formal historic landscapes on higher ground such as Windsor Park.
There is a diverse range of semi-natural habitat including ancient woodland, lowland heath and floodplain grazing marsh. These all provide important habitats for a wide of of species including great crested newt, water vole, dormice and otter.	Towards London in the east the natural character of the area is overtaken by urban influences; a dense network of roads including the M25 motorway corridor, Heathrow airport, railway lines, golf courses, pylon lines, reservoirs, extensive mineral extraction and numerous flooded gravel pits.
The medieval pattern of small villages and dispersed farming settlements remains central to the character of Hertfordshire and Essex. Market towns, London suburbs have expanded along with commuter settlements.	

### Trends

The Northern Thames Basin and Thames Valley NCAs identify key ecological trends which are summarised in Table 4.5, below.

**Table 4.5 Northern Thames Basin and Thames Valley NCAs – Ecological features and trends**

Feature	Trend	
	Northern Thames Basin	Thames Valley
Trees and woodland	Woodland cover is extensive across the Hertfordshire plateaux and wooded hills and ridges of Essex. Approximately 50% of woodland cover is on ancient woodland sites, approximately 40% of which are covered by a woodland grant scheme. Management agreements are in place to maintain the woodland character, although the impact of deer is creating an increasing pressure on woodlands.	Woodland quality has been enhanced and the area it covers has increased as a result of the English Woodland Grant Scheme, regulated by the Forestry Commission. Although this suggests the wooded character of the area is strengthening it is noted that the potential for the creation of new woodland is low.
Boundary features	Hedgerows are the main boundary feature in the area followed by ditches and woodland. Only two percent of these features were under a Countryside Stewardship Capital agreement for linear features between 1999 and 2003.	Field boundaries are predominantly hedgerows although it is thought that this resource has been neglected given the fairly small proportion of field boundaries within any kind of Environmental Stewardship scheme (~5%).
Agriculture	Arable and pasture land is found across the area. There has been a drop in mixed and general cropping and horticulture since 1998, although the rate of grassland loss has slowed and the mix of farm holding types has stabilised.  There has been a significant reduction in livestock numbers (the number of cattle has decreased 52% between 2000 and 2009), in addition to a decrease in the intensity of grazing.	There are limited farming activities within the area due to its urban nature which continues to erode the agricultural character. Agriculture within the M25 motorway has largely been lost. Between 2000 and 2009 the area of land devoted for farming fell by 5%.
Semi-natural habitats	There have been reductions in heathland extent and quality, although restoration projects are underway in Essex under Environmental Stewardships.  Dense 'high forest' has resulted from a lack of management of coppice woodlands in Hertfordshire and Essex. This, along with the high numbers of deer in woodland and rural areas could be a contributing factor to the lack of shrubs and trees within the NCA. Semi-natural woodland has been dramatically reduced; particularly in Essex.  The majority of the SSSI within the NCA are in favourable condition and only 7% are classified as unfavourable declining or unchanged.	Many of the area's SSSIs are broadleaved woodlands, which are generally in <i>favourable condition</i> . Acid grassland SSSIs are also present in relatively high numbers but tend to be in <i>unfavourable condition</i> . A decline in natural reedbeds is beginning to be reversed through conservation efforts. Heathlands represent a very small area (~70 ha) but its proximity to the Thames Basin Heaths SPA makes it significant.
Coast and Rivers	Agri-environmental agreements have enhanced rivers and coastal features.  Nitrates, invasive species, recreational activities such as boating and morphological alterations are having detrimental impact on the water quality and ecology of the rivers.	The area is under intense pressure for water with almost all rivers being heavily modified and suffering from pollution and low flows which may impact on ecology such as migratory fish species.

Feature	Trend	
Invasive / non-native species	Invasive species such as floating pennywort and Himalayan balsam grow alongside river banks creating a monoculture and increase sedimentation.	Japanese knotweed has doubled its distribution over the last twenty years. Non-native crayfish species are increasing their range, along with freshwater shrimp species and Chinese mitten crabs.
Minerals	In London Clay lowlands, mineral extraction is replacing some farmland. Previous mineral sites are now being used as geology and wildlife nature reserves.	Gravel extraction is an important industry within the area, and the restored sites provide value wildlife habitats.

### Drivers

The Northern Thames Basin and Thames Valley NCAs identify key drivers for change; these are summarised in Table 4.6.

**Table 4.6 Thames Valley NCA – Drivers of change**

Driver	Effect	
	Northern Thames Basin	Thames Valley
Climate change	<p>Woodland habitats may have increased above ground biomass due to increased carbon dioxide and nitrogen availability. This, may consequently impact on ground or lower growing flora.</p> <p>Wetlands and open water habitats and associated species are likely to have to cope with greater water level fluctuations. This may have an adverse affect on great crested newts in particular.</p> <p>Inner London areas are likely to experience higher temperatures, consequently resulting in species changes, including exotic invasive species such as parakeets.</p>	<p>Peak river flows are predicted to increase by 20% due to milder, wetter winters, with intense summer storm events leading to flash floods.</p> <p>An increase in the frequency and severity of storm events and drought conditions may lead to increased loss of woodland trees (particularly shallow-rooted beech).</p> <p>Drier summers and higher temperatures may impact the area's semi-natural wetland habitats such as wet meadows.</p>
Urban development	Urban development and associated infrastructure may result in increased habitat fragmentation and disturbance issues.	Urban development and associated infrastructure may result in increased habitat fragmentation and disturbance issues.
Recreation	Many semi-natural habitats including woodlands have been lost to recreational development; golf courses in particular. Recreational activities such as boating can also lead to increased rates of sedimentation within watercourses.	There is a trend in movement from agricultural, common and heath land into horse pasture and golf course developments. Increased use of large water bodies for recreation results in increased disturbance to waterfowl.

## 4.7 Conclusions

The Heathrow ENR scheme encompasses and is surrounded by 59 statutory designated sites five of which are located within the proposal footprint and over 80 non-statutory designated sites. There are several protected species records within the search area. Deciduous woodland, a Priority Habitat, is located within the footprint of the proposal along with lowland meadows and reed beds on the boundary of the site. Ancient woodland is located within 2km of the scheme. Changes to the NCAs, within which Heathrow airport is located, are driven by climate change leading to changes in species composition due to higher temperatures and greater fluctuations in water levels. Urban development is leading towards habitat fragmentation and an increase in recreational use of undeveloped land leading to poorly managed woodland and increased disturbance and sedimentation of waterbodies.



## 5 Biodiversity and Bird Strike

Civil Aviation Authority (CAA) data has been obtained on the overall number of bird strikes that occur annually within the UK. They record total reported numbers of bird strikes and confirmed strikes and these are shown in tables 5.1 and 5.2.

**Table 5.1 - Number of reported UK bird strikes 2011- 2013**

Year	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total
2011	70	78	102	118	278	264	396	396	276	227	156	96	2457
2012	72	102	109	126	184	261	371	337	267	186	126	74	2215
2013	59	66	87	109	195	314	485	424	297	215	124	92	2467

**Table 5.2 - Number of confirmed reported UK bird strikes 2011- 2013**

Year	Jan -Mar	Apr - Jun	Jul - Sep	Oct - Dec	Total
2011	160	388	664	317	1529
2012	172	351	598	283	1404
2013	153	413	721	248	1535

The CAA also provides a record of the species which were involved in bird strike events and this has been reproduced for the last three years. This has been used to identify the species that may be relevant to any extension of Gatwick or Heathrow airport (see Table 5.3).

**Table 5.3 - Bird strike events by species 2011-2013**

Species	2011				2012				2013			
Quarter	1	2	3	4	1	2	3	4	1	2	3	4
Lapwing	<5	-	-	-	-	-	-	-	-	-	-	-
Buzzard	<5	-	-	5-10	-	-	-	-	-	-	-	5
Curlew	<5	-	-	-	-	-	-	-	-	-	-	-
Pigeon	<5	10-15	20-25	5-10	-	10-15	15-20	10	5-10	5-10	15-20	-
Racing pigeon	-	5-10	-	-	-	-	-	-	-	5-10	-	-
Woodpigeon	<5	10-15	55-60	5-10	<5	20-25	40-45	10-15	-	10	40-45	10
Meadow pipit	5	5-10	-	5-10	-	10-15	-	-	-	-	-	5-10
Rook	-	10-15	-	<5	-	10-15	-	-	-	-	-	-
Skylark	15	30-35	15-20	25-30	10-5	35-40	10-15	10-15	5	25-30	20	10
Starling	-	10	-	-	5-10	10-15	-	-	<5	10	-	5-10
Swallow	-	30-35	130-140	-	-	20-25	75-80	-	-	25	135-140	-
Swift	-	45-50	25-30	-	-	30	20-25	-	-	-	65-70	-
Gulls	35-40	40-45	65-70	60-65	30-35	5-10	45-50	50-55	30-35	30	60-65	75-80

House martin	-	5-10	15-20	-	-		15-20	-		-	20-30	-
Kestrel	-	-	35-40	5-10	<5	10-15	40-45	10	5	-	25-30	-
Pied/white wagtail	-	-	15-20	-	-	-	-	-		-	15-20	-
Barn owl	-	-	-	5-10	5	-	-	20	5-10	-	-	5-10
Short eared owl	-	-	-	5-10	-	-	-	-		-	-	-
Golden plover	-	-	-		5-10	-	-	-		-	-	-
Other	5-10	-	15-20	-	-	-	10-15	5-10	5-10	-	-	-

The existing biodiversity baseline data have been reviewed to consider the prominence of these species in proximity to Heathrow and Gatwick airports. However, the general data identifies the presence of a wide number of species that are associated with bird strike, but they do not identify specific high risk species which are being effectively managed through bird strike mitigation plans. A Birdstrike Risk report is provided as Annex E of Assessment of Biodiversity report Jacobs 2014 and sets out the baseline conditions included below.

## 5.1 Gatwick

Gatwick is situated in an area that consists of a complex of arable fields, hedgerows and small woodlands, interspersed with small villages. The larger towns of Crawley and Horley are located to the south and north-east of the airport respectively. The airport is located on the floodplain of the River Mole which skirts the airport to the north and a number of small balancing ponds exist that may attract ducks or geese in low numbers. The birdstrike sample is likely to consist of a mixture of common agricultural bird species (e.g. pigeons, corvids, starlings and gulls), plus the normal range of smaller birds such as skylark, hirundines, swift etc.

## 5.2 Heathrow

Heathrow lies in a semi-urban environment, comprising a mosaic of domestic dwellings with gardens, light industrial buildings and ancillary buildings for the airport such as hotels and car parking. These areas are interspersed with agricultural fields, primarily growing arable crops, and grassed areas such as sports pitches and grazing pasture for horses. These habitats support an assemblage of common bird species such as pigeons, corvids, starlings, kestrel and gulls, as well as smaller species such as hirundines, swift, finches and pipits etc. These species are typical of many airports in the UK, but where Heathrow differs is in the presence of several very large water supply reservoirs and the complex of flooded mineral extractions in the Thames and Colne valleys which lie to the south and west of the airport.

The western approach to the northern runway passes over the River Thames, Queen Mother Reservoir and the River Colne, whilst the western approach to the southern runway crosses the River Thames, the complex of flooded gravel pits between Horton and Wraysbury, Wraysbury Reservoir, and the River Colne. The normal mixture of birds that would be expected at a UK airport is therefore augmented by very large numbers of gulls that roost on the reservoirs in the winter, for example over 18,000 gulls were recorded roosting on Queen Mother reservoir in February 2013 and by large numbers of waterfowl that occupy these reservoirs and gravel pits all year round. These wetland areas also attract smaller numbers of other hazardous species

such as cormorant and grey heron. The larger than normal numbers of wetland bird species in the area means that any development that influences either the number or behaviour of these birds, and/or brings the aircraft into closer proximity to bird populations, has the potential to increase birdstrike risk unless appropriate mitigating action is taken.

## Glossary

The following table lists and explains key technical terms used in this report.

<b>Alluvial deposits</b>	Those derived from rivers
<b>BAP</b>	Biodiversity Action Plan
<b>Base-poor</b>	Lacking in alkaline elements, resulting in acidic environments
<b>Biodiversity</b>	The diversity of wildlife
<b>CAA</b>	Civil Aviation Authority
<b>Carr woodland</b>	Damp, shaded woodland dominated by species such as alder, willow and birch.
<b>Climate change</b>	This is a significant variation in meteorological factors (such as temperature and precipitation) over a period of decades; it can be due to natural processes or anthropogenic forcing. Recently the term climate change has been used to describe the anthropogenic changes in climate that will have important social, environmental and economic impacts.
<b>Corvids</b>	Family of birds species including crows, jackdaws and magpies
<b>CRoW Act</b>	Countryside & Rights of Way Act
<b>Countryside Stewardship</b>	Agri-environment scheme administered by the Government
<b>Deciduous</b>	Relating to trees which annual shed / drop their leaves
<b>Environmental Stewardship</b>	Agri-environment scheme administered by the Government
<b>ENR</b>	Extended Northern Runway
<b>Eutrophic</b>	Nutrient-rich
<b>GAL</b>	Gatwick Airport Limited
<b>GiGL</b>	Greenspace information for Greater London
<b>HAL</b>	Heathrow Airport Limited
<b>HH</b>	Heathrow Hub
<b>Hirundines</b>	Family of birds species including swifts, swallows and martins
<b>LNR</b>	Local Nature Reserve
<b>LWS</b>	Local Wildlife Site
<b>Mesotrophic</b>	Moderate nutrient enrichment
<b>Monoculture</b>	Areas of vegetation comprised of a single species
<b>NCA</b>	National Character Areas
<b>NE</b>	Natural England
<b>NERC</b>	Natural Environment & Rural Communities
<b>NNR</b>	National Nature Reserve

<b>NWR</b>	North West Runway
<b>Ruderal species</b>	Those first to colonise an area of disturbed ground.
<b>SAC</b>	Special Area of Conservation
<b>SBIC</b>	Surrey Biological Information Centre
<b>Sedimentation</b>	The accumulation of sediment
<b>SINC</b>	Site of Importance for Nature Conservation
<b>SMINC</b>	Site of Metropolitan Importance for Nature Conservation
<b>SNCI</b>	Site of Nature Conservation Importance
<b>SSSI</b>	Site of Special Scientific Interest
<b>SPA</b>	Special Protection Area
<b>SXBRC</b>	Sussex Biological Records Centre
<b>TVERC</b>	Thames Valley Environmental Records Centre

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## Appendix A Protected Species within 2km

The following tables show lists of protected species records within 2km of Gatwick and Heathrow Airports. Protected species records have been supplied by Sussex Biological Records Centre, Surrey Biological Records Centre, Thames Valley Environmental Records Centre and Greenspace Information for Greater London. All records displayed below within these tables have been collated within the last 20 years.

### Gatwick Airport Second Runway

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
Sussex Biodiversity Records Centre	Pennyroyal	<i>Mentha pulegium</i>	*1	2010	2	Wildlife and Countryside Act (W&CA) Schedule (Sch)8; IUCN (2001) - Endangered; NERC 2006; Sussex BAP, Sussex Protected Species Register; Sussex Rare Inventory
	Great crested newt	<i>Triturus cristatus</i>	*1	2009	14	W&CA Sch 5; Bern Convention Appendix 2; European Protected Species; Habitats Directive Annex 2; Habitats Directive Annex 4; NERC Act 2006; UK BAP priority species, Sussex Protected Species Register
	Hazel dormouse	<i>Muscardinus avellanarius</i>	*1	2009	6	W&CA Sch 5; Bern Convention Appendix 2; European Protected Species; Habitats Directive Annex 2; Habitats Directive Annex 4; NERC Act 2006; UK BAP priority species, Sussex Protected Species Register
	Slow-worm	<i>Anguis fragilis</i>	*1	2010	4	W&CA Sch 5; NERC 2006; Sussex Protected Species Register; UK BAP priority species
	Grass snake	<i>Natrix natrix</i>	*1	2010	8	W&CA Sch 5; NERC 2006; Sussex Protected Species Register; UK BAP priority species
	Common lizard	<i>Zootoca vivipara</i>	*1	2006	2	W&CA Sch 5; NERC 2006; Sussex Protected Species Register; UK BAP priority species
	Adder	<i>Vipera berus</i>	*1	2008	1	W&CA Sch 5; NERC 2006; Sussex Protected Species Register; UK BAP priority species
	Western barbastelle	<i>Barbastella barbastellus</i>	*1	2004	2	Conservation Regulations (Regs) 2010, W&CA Sch 5, Bern Convention Appendix 2, Bern Convention Appendix 2, Habitats Directive Annex 4
	Bat sp.	<i>Chiroptera</i>	*1	2011	7	Conservation Regs 2010, W&CA Sch 5, Bern Convention Appendix 2, Bern Convention Appendix 2, Habitats Directive Annex 4
	Serotine	<i>Eptesicus serotinus</i>	*1	2008	1	Conservation Regs 2010, W&CA Sch 5, Bern Convention Appendix 2, Bern Convention Appendix 2, Habitats Directive Annex 4

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Unidentified bat	<i>Myotis</i>	*1	2013	5	Conservation Regs 2010, W&CA Sch 5, Bern Convention Appendix 2, Bern Convention Appendix 2, Habitats Directive Annex 4
	Daubenton's bat	<i>Myotis daubentonii</i>	*1	2005	2	Conservation Regs 2010, W&CA Sch 5, Bern Convention Appendix 2, Bern Convention Appendix 2, Habitats Directive Annex 4
	Natterer's bat	<i>Myotis nattereri</i>	*1	2005	2	Conservation Regs 2010, W&CA Sch 5, Bern Convention Appendix 2, Bern Convention Appendix 2, Habitats Directive Annex 4
	Noctule bat	<i>Nyctalus noctula</i>	*1	2013	7	Conservation Regs 2010, W&CA Sch 5, Bern Convention Appendix 2, Bern Convention Appendix 2, Habitats Directive Annex 4
	Pipstrelle sp.	<i>Pipistrellus</i>	*1	2010	3	Conservation Regs 2010, W&CA Sch 5, Bern Convention Appendix 2, Bern Convention Appendix 2, Habitats Directive Annex 4
	Common pipistrelle (45 kHz)	<i>Pipistrellus pipistrellus</i>	*1	2012	20	Conservation Regs 2010, W&CA Sch 5, Bern Convention Appendix 2, Bern Convention Appendix 2, Habitats Directive Annex 4
	Soprano pipstrelle (55 kHz)	<i>Pipistrellus pygmaeus</i>	*1	2013	4	Conservation Regs 2010, W&CA Sch 5, Bern Convention Appendix 2, Bern Convention Appendix 2, Habitats Directive Annex 4
	Long-eared sp.	<i>Plecotus</i>	*1	2011	4	Conservation Regs 2010, W&CA Sch 5, Bern Convention Appendix 2, Bern Convention Appendix 2, Habitats Directive Annex 4
	Brown Long-eared bat	<i>Plecotus auritus</i>	*1	2013	6	Conservation Regs 2010, W&CA Sch 5, Bern Convention Appendix 2, Bern Convention Appendix 2, Habitats Directive Annex 4
	Common swift	<i>Apus apus</i>	*1	2010	9	Amber Status
	Little ringed plover	<i>Charadrius dubius</i>	*1	2008	5	Bern Convention Appendix 2; W&CA Sch 1; Amber Status; Convention on Migratory species
	Northern lapwing	<i>Vanellus vanellus</i>	*1	2007	3	Red Status; Birds Directive Annex 2.2; Convention on Migratory Species; Environmental Stewardship Target Species NERC Act 2006
	Common snipe	<i>Gallinago gallinago</i>	*1	2010	23	Amber Status; Birds Directive Annex 2.1; Convention on Migratory Species
	Grey heron	<i>Ardea cinerea</i>	*1	2008	1	Not given
	Little egret	<i>Egretta garzetta</i>	*1	2010	14	Bern Convention Appendix 2; Amber Status; Birds Directive Annex 1; EC CITES Annex A
	Common kingfisher	<i>Alcedo atthis</i>	*1	2010	2	Bern Convention Appendix 2; Amber Status; Birds Directive Annex 1; W&CA Sch 1

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Red kite	<i>Milvus milvus</i>	*1	2011	7	Amber Status; Birds Directive Annex 1; Convention on Migratory Species; EC CITES Annex A; W&CA Sch 1
	Osprey	<i>Pandion haliaetus</i>	*1	2006	1	Amber Status; Birds Directive Annex 1; Convention on Migratory Species; EC CITES Annex A; W&CA Sch 1
	Eurasian hobby	<i>Falco subbuteo</i>	*1	2004	1	Bern Convention Appendix 2; Convention on Migratory Species; EC CITES Annex A; W&CA Sch1
	Common quail	<i>Coturnix coturnix</i>	*1	2006	1	Amber Status; Birds Directive Annex 2.2; W&CA Sch 1
	Grey partridge	<i>Perdix perdix</i>	*1	2006		Red Status; Environmental Stewardship Target Species; NERC Act 2006
	Hawfinch	<i>Coccothraustes coccothraustes</i>	*1	2006	1	Bern Convention Appendix 2; Red Status; NERC Act 2006
	Common crossbill	<i>Loxia curvirostra</i>	*1	2006	1	Bern Convention Appendix 2; W&CA Sch 1
	Barn swallow	<i>Hirundo rustica</i>	*1	2010	10	Bern Convention 2; Amber Status
	Willow tit	<i>Poecile montanus</i>	*1	2002	1	Bern Convention 2I Red Status; NERC Act 2006; UK BAP priority species
	Black redstart	<i>Phoenicurus ochruros</i>	*1	2002	1	Bern Convention Appendix 2; Amber Status; W&CA Sch1
	Lesser spotted woodpecker	<i>Dendrocopos minor</i>	*1	2002	1	Bern Convention Appendix 2; Red Status; NERC Act 2006; BAP priority species
	Long-eared owl	<i>Asio otus</i>	*1	2002	10	Bern Convention Appendix 2; EC CITES Annex A
	Barn owl	<i>Tyto alba</i>	*1	2006	4	Bern Convention Appendix 2; Amber Status; EC CITES Annex A; W&CA Schedule 1
Surrey Biodiversity Records Centre	Bluebell	<i>Hyacinthoides non-scripta</i>	*1	1997	3	W&CA Sch 8
	Wren	<i>Troglodytes troglodytes</i>	*1	2000	4	Bern Convention Appendix 2
	Stonechat	<i>Saxicola torquata</i>	*1	2000	6	Bern Convention Appendix 2
	Common shrew	<i>Sorex araneus</i>	*1	2006	4	Bern Convention Appendix 3
	Roe deer	<i>Capreolus capreolus</i>	*1	2005	14	Bern Convention Appendix 3
	Purple emperor	<i>Apatura iris</i>	*1	2000	1	W&CA Sch 5; Bern Convention Appendix 3
	Common frog	<i>Rana temporaria</i>	*1	2012	1	W&CA Sch 5; Bern Convention Appendix 3
	Smooth newt	<i>Lissotriton vulgaris</i>	*1	2012	1	W&CA Sch 5; Bern Convention Appendix 3
	Great crested newt	<i>Triturus cristatus</i>	*1	2012	2	Conservation Regs 2010; W&CA Sch 5; Bern Convention Appendix 3; Habitats Directive Annex 2; Habitats Directive Annex 4

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Hedgehog	<i>Erinaceus europaeus</i>	*1	2012	1	Bern Convention Appendix 3
	Brown hairstreak	<i>Thecla betulae</i>	*1	2010	1	W&CA Sch 5; Bern Convention Appendix 3
	Hazel dormouse	<i>Muscardinus avellanarius</i>	*1	before 1996	1	Conservation Regs 2010; W&CA Sch 5; Bern Convention Appendix 3; Habitats Directive Annex 2; Habitats Directive Annex 4
	Common pipistrelle	<i>Pipistrellus pipistrellus</i>	*1	2005	2	Conservation Regs 2010; W&C Act Sch 5; Bern Convention Appendix 2; Habitats Directive Annex 4
	Long-eared bat	<i>Plecotus sp.</i>	*1	2010	2	Conservation Regs 2010; W&CA Sch 5; Bern Convention Appendix 2; Habitats Directive Annex 4
	Brown long-eared bat	<i>Plecotus auritus</i>	*1	2004	1	Conservation Regs 2010; W&CA Sch 5; Bern Convention Appendix 2; Bern Convention Appendix 3; Habitats Directive Annex 4
	Brown long-eared bat	<i>Plecotus auritus</i>	*4	2008	1	Conservation Regs 2010; W&CA Sch 5; Bern Convention Appendix 2; Bern Convention Appendix 3; Habitats Directive Annex 4
	Pennyroyal	<i>Mentha pulegium</i>	*1	2008	1	W&CA Sch 8
	Palmate newt	<i>Lissotriton helveticus</i>	*1	1997	1	W&CA Sch 5; Bern Convention Appendix 3
	Snowdrop	<i>Galanthus nivalis</i>	*1	1997	1	Habitats Directive Annex 5
	Green Woodpecker	<i>Picus viridis</i>	*1	1997	1	Bern Convention Appendix 2
	Blunt-leaved bog-moss	<i>Sphagnum palustre</i>	*1	2006	14	Habitats Directive Annex 5
	Bechstein's bat	<i>Myotis bechsteinii</i>	*4	2001	1	Conservation Regs 2010; W&CA Sch 5; Bern Convention Appendix 2; Habitats Directive Annex 2; Habitats Directive Annex 4
	Natterer's bat	<i>Myotis nattereri</i>	*4	2001	1	Conservation Regs 2010; W&CA Sch 5; Bern Convention Appendix 2; Habitats Directive Annex 2; Habitats Directive Annex 4
	Robin	<i>Erithacus rubecula</i>	*1	2006	6	Bern Convention Appendix 2
	Blue tit	<i>Cyanistes caeruleus</i>	*1	1998	1	Bern Convention Appendix 2
	Great tit	<i>Parus major</i>	*1	2001	1	Bern Convention Appendix 2
	Small heath	<i>Coenonympha pamphilus</i>	*1	2004	1	IUCN (2001) - Near Threatened / Surrey Status - Fairly Widespread and Common
	Cat-mint	<i>Nepeta cataria</i>	*1	2004	1	IUCN (2001) - Vulnerable / Surrey status - Very Rare

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Elongated sedge	<i>Carex elongata</i>	*1	2001	3	Nationally Scarce / Surrey Status - Very Rare
	White admiral	<i>Limenitis camilla</i>	*1	2001	1	IUCN (2001) - Vulnerable / Surrey Status - Fairly Widespread and Fairly Common
	Pale St John's-wort	<i>Hypericum montanum</i>	*1	1994	1	IUCN (2001) - Near Threatened / Surrey Status - Fairly Widespread and Common
	Large-leaved lime	<i>Tilia platyphyllos</i>	*1	1998	3	Nationally Scarce / Surrey Status - Rare
	Greater butterfly-orchid	<i>Platanthera chlorantha</i>	*1	1998	2	IUCN (2001) - Near Threatened / Surrey Status - Rare
	Grizzled skipper	<i>Pyrgus malve</i>	*1	2005	4	IUCN (2001) - Vulnerable / Surrey Status - Restricted but Fairly Common
	A solitary bee	<i>Lasioglossum malachurum</i>	*1	2001	1	Nationally Notable B
	Field woundwort	<i>Stachys arvensis</i>	*1	1998	1	IUCN (2001) - Near Threatened / Surrey Status - Locally Frequent
	Fringed water-lily	<i>Nymphoides peltata</i>	*1	2005	1	Nationally Scarce
	A solitary bee	<i>Lasioglossum pauxillum</i>	*1	2007	1	Nationally Notable a
	A nomad or mason bee	<i>Nomada fucata</i>	*1	2001	1	Nationally Notable a
	Box bug	<i>Gonocerus acuteangulatus</i>	*1	2005	1	IUCN (pre 1994) - Endangered / Surrey Status - Increasingly Common
	A gall fly	<i>Chetostoma curvinerve</i>	*1	2002	1	IUCN (pre 1994) - Endangered
	Red wood ant	<i>Formica rufa</i>	*1	2002	2	IUCN (1994) - Near Threatened
	A plantbug or grassbug	<i>Deraeocoris olivaceus</i>	*1	2009	1	Nationally Notable B
	A click beetle	<i>Athous campyloides</i>	*1	2005	1	Nationally Notable B
	White letter hairstreak	<i>Satyrrium w-album</i>	*1	2005	2	IUCN (2001) - Endangered / Surrey Status - Widespread and Fairly Common
	A ladybird	<i>Nephus quadrimaculatus</i>	*1	2005	1	IUCN (pre 1994) - Vulnerable / Surrey Status - Fairly Widespread and Fairly Common
	A bug	<i>Stictopleurus punctatonevrosus</i>	*1	1997	1	IUCN (pre 1994) - Extinct
	A soldier beetle	<i>Rhagonycha lutea</i>	*1	2004	1	Nationally Notable B
	Narrow-lipped helleborine	<i>Epipactis leptochila</i>	*1	2009	1	Nationally Scarce / Surrey Status - Rare
	Stinking chamomlie	<i>Anthemis cotula</i>	*1	2005	1	IUCN (2001) - Vulnerable / Surrey Status - Locally Abundant

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Black-headed cardinal beetle	<i>Pyrochroa coccinea</i>	*1	2005	2	Nationally Notable B
	A hoverfly	<i>Volucella inanis</i>	*1	2005	1	Nationally Notable
	Mallard	<i>Anas platyrhynchos</i>	*1	1997	1	Birds of Conservation Concern 3 (BOCC3) - Amber
	A false click beetle	<i>Melasis buprestoides</i>	*1	2004	1	Nationally Notable B

\*1 = Records from within the 2km search area of the airport boundaries; \*2 = Records accurate to within a 1km grid square; \*3 = Records accurate to within a 2km grid square; \*4 = Records accurate to within a 10km grid square; Unk = Locations of records not known either due to confidentiality requirements.



## Heathrow Airport Northwest Runway

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
Greenspace information for Greater London – Heathrow east	Shady horsetail	<i>Equisetum pratense</i>	*1	2012	1	Nationally Scarce
	Scots pine	<i>Pinus sylvestris</i>	*1	1996	1	Nationally Scarce
	Arrowhead	<i>Sagittaria sagittifolia</i>	*1	2004	23	Local Species (Spp.) of Conservation Concern (Cons. Conc.)
	Greater pond-sedge	<i>Carex riparia</i>	*1	2004	21	Local Spp. of Cons. Conc.
	Galingale	<i>Cyperus longus</i>	*1	2004	2	Nationally Scarce, RedList in GB Lower risk/near threatened (LR(NT)
	Bluebell	<i>Hyacinthoides non-scripta</i>	*1	2012	2	W&CA Sch.8, Local Spp. of Cons. Conc.
	Daffodil	<i>Narcissus pseudonarcissus</i>	*1	2012	2	Local Spp. of Cons. Conc.
	Crested hair-grass	<i>Koeleria macrantha</i>	*1	2004	1	Local Spp. of Cons. Conc.
	Annual beard-grass	<i>Polypogon monspeliensis</i>	*1	2012	1	Nationally Scarce
	Fine-leaved water-dropwort	<i>Oenanthe aquatica</i>	*4	2005	8	Spp. Cons. Conc.
	Tubular water-dropwort	<i>Oenanthe fistulosa</i>	*4	2005	7	NERC Act, RedList_GB-Vulnerable BAP Priority National,
	River water-dropwort	<i>Oenanthe fluviatilis</i>	*1	2004	14	BAP Priority London, Local Spp. of Cons. Conc.
	Greater water-parsnip	<i>Sium latifolium</i>	*4	2005	13	NERC Act, BAP Priority National, Nationally Scarce, RedList_GB-Endangered
	Cornflower	<i>Centaurea cyanus</i>	*1	2012	4	NERC Act, BAP Priority National
	Viper's-bugloss	<i>Echium vulgare</i>	*2, *4	1996	2	Local Spp. of Cons. Conc.
	Smith's pepperwort	<i>Lepidium heterophyllum</i>	*2, *4	1996	2	Local Spp. of Cons. Conc.
	Box	<i>Buxus sempervirens</i>	*2	1997	1	Nationally Rare, RedList_GB-Data deficient
	Changing forget-me-not	<i>Myosotis discolor</i>	*1	2012	2	Local Spp. of Cons. Conc.
	Good-king-henry	<i>Chenopodium bonus-henricus</i>	*1	2004	4	RedList_GB-Vulnerable
	Slender tare	<i>Vicia parviflora</i>	*1	2012	2	Nationally Scarce, RedList_GB-Vulnerable
	Fringed water-lily	<i>Nymphoides peltata</i>	*1	2012	1	Local Spp. of Cons. Conc., Nationally Scarce
	Meadow crane's-bill	<i>Geranium pratense</i>	*2, *3, *4	1998	13	Local Spp. of Cons. Conc.
	Marsh dock	<i>Rumex palustris</i>	*1	1996	1	Local Spp. of Cons. Conc.

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Water-violet	<i>Hottonia palustris</i>	*1	2010	1	Local Spp. of Cons. Conc.
	River water-crowfoot	<i>Ranunculus fluitans</i>	*1	2004	11	Local Spp. of Cons. Conc.
	Common meadow-rue	<i>Thalictrum flavum</i>	*1	1999	1	Local Spp. of Cons. Conc.
	Water avens	<i>Geum rivale</i>	*1	2012	3	Local Spp. of Cons. Conc.
	Trailing tormentil	<i>Potentilla anglica</i>	*1	1997	2	Local Spp. of Cons. Conc.
	Great burnet	<i>Sanguisorba officinalis</i>	*1	2004	1	Local Spp. of Cons. Conc.
	Lime	<i>Tilia platyphyllos</i> x <i>cordata</i> = <i>T. x europaea</i>	*1	2004	3	Nationally Scarce
	Pansy	<i>Viola tricolor</i> subsp. <i>tricolor</i>	*2	1997	1	RedList_GB-Lr(NT)
	Mistletoe	<i>Viscum album</i>	*1	1994	1	BAP Priority London, Local Spp. of Cons. Conc.
	Wasp spider	<i>Argiope bruennichi</i>	*1	2006	1	Local Spp. of Cons. Conc.
	Long-winged cone-head	<i>Conocephalus fuscus</i>	*1	2004	1	Local Spp. of Cons. Conc.
	Stag beetle	<i>Lucanus cervus</i>	*1	2012	4	Hab&Spp Dir Anx 2, NERC Act, BAP Priority National, BAP Priority London, Nationally Notable B, Local Spp of Cons Conc
	Brown argus	<i>Aricia agestis</i>	*1	2010	1	Local Spp. of Cons. Conc.
	Silver-washed fritillary	<i>Argynnis paphia</i>	*2	1997	1	Local Spp. of Cons. Conc.
	Marbled white	<i>Melanargia galathea</i>	*1	2012	1	Local Spp. of Cons. Conc.
	Marbled white	<i>Melanargia galathea</i> subsp. <i>serena</i>	*1	2010	2	Local Spp. of Cons. Conc.
	Grayling	<i>Hipparchia semele</i>	*1	2010	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc, RedList_GB-Vulnerable
	Small heath	<i>Coenonympha pamphilus</i>	*1	2012	18	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., RedList_GB-Lr(NT)
	Goat moth	<i>Cossus cossus</i>	*1	2012	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Bulrush veneer	<i>Calamotropha paludella</i>	*1	2012	3	Nationally Notable B
	Giant water-veneer	<i>Schoenobius gigantella</i>	*1	2012	2	Nationally Notable B
	Dingy footman	<i>Eilema griseola</i>	*1	2012	2	Local Spp. of Cons. Conc.

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Buff footman	<i>Eilema depressa</i>	*1	2007	1	Local Spp. of Cons. Conc.
	White ermine	<i>Spilosoma lubricipeda</i>	*1	2000	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Buff ermine	<i>Spilosoma luteum</i>	*1	2012	3	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Cinnabar	<i>Tyria jacobaeae</i>	*1	2012	9	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Small square-spot	<i>Diarsia rubi</i>	*1	2012	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Southern wainscot	<i>Mythimna straminea</i>	*1	2012	2	Local Spp. of Cons. Conc.
	Deep-brown dart	<i>Aporophyla lutulenta</i>	*1	2012	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Beaded chestnut	<i>Agrochola lychnidis</i>	*1	2006	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Sallow	<i>Xanthia icteritia</i>	*1	2006	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Knot grass	<i>Acronicta rumicis</i>	*1	2012	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Rosy rustic	<i>Hydraecia micacea</i>	*1	2012	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Brown-veined wainscot	<i>Archanara dissoluta</i>	*1	2007	1	Local Spp. of Cons. Conc.
	Large wainscot	<i>Rhizedra lutosa</i>	*1	2012	3	NERC Act, BAP Priority National
	Silky wainscot	<i>Chilodes maritimus</i>	*1	2007	1	Local Spp. of Cons. Conc.
	Mother shipton	<i>Callistege mi</i>	*1	2012	1	Local Spp. of Cons. Conc.
	Common frog	<i>Rana temporaria</i>	*1	2010	5	Local Spp. of Cons. Conc.
	Grass snake	<i>Natrix natrix</i>	*1	2012	3	W&CA Sch5, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Little gull	<i>Hydrocoloeus minutus</i>	*1	1998	17	Birds Directive (Birds Dir.) Anx.1, W&CA Sch.1
	Yellow-legged gull	<i>Larus cachinnans</i>	*1	2004	3	BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Mute swan	<i>Cygnus olor</i>	*1	2010	77	Local Spp. of Cons. Conc.

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Ruddy shelduck	<i>Tadorna ferruginea</i>	*1	1996	2	Birds Dir. Anx.1
	Common shelduck	<i>Tadorna tadorna</i>	*1	2000	145	Local Spp. of Cons. Conc.
	Eurasian wigeon	<i>Anas penelope</i>	*1	2007	16	Local Spp. of Cons. Conc.
	Gadwall	<i>Anas strepera</i>	*1	2012	98	Local Spp. of Cons. Conc.
	Eurasian teal	<i>Anas crecca</i>	*1	2012	66	Local Spp. of Cons. Conc.
	Northern pintail	<i>Anas acuta</i>	*1	1998	4	Local Spp. of Cons. Conc.
	Garganey	<i>Anas querquedula</i>	*1	1999	10	W&CA Sch.1, Local Spp. of Cons. Conc.
	Garganey	<i>Anas querquedula</i>	Unk	1999	4	W&CA Sch.1, Local Spp. of Cons. Conc.
	Northern shoveler	<i>Anas clypeata</i>	*1	2007	31	Local Spp of Cons Conc
	Ferruginous duck	<i>Aythya nyroca</i>	*1	2002	17	Birds Dir. Anx.1
	Common scoter	<i>Melanitta nigra</i>	*1	2001	1	W&CA Sch.1, NERC Act, BOCC3-Red, BAP Priority National
	Velvet scoter	<i>Melanitta fusca</i>	*1	1994	1	W&CA Sch.1
	Smew	<i>Mergellus albellus</i>	*1	2007	37	Birds Dir. Anx.1
	Grey partridge	<i>Perdix perdix</i>	*1	2007	5	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Great bittern	<i>Botaurus stellaris</i>	*1	2003	2	Birds Dir. Anx.1, W&CA Sch1, NERC Act, BOCC3-Red, BAP Priority National, BAP Priority London
	Little egret	<i>Egretta garzetta</i>	*1	2008	9	Birds Dir. Anx.1, W&CA Sch.1
	Grey heron	<i>Ardea cinerea</i>	*1	2012	36	Local Spp of Cons Conc
	White stork	<i>Ciconia ciconia</i>	*1	2003	1	Birds Dir. Anx.1
	Eurasian spoonbill	<i>Platalea leucorodia</i>	*1	1997	1	Birds Dir. Anx.1, W&CA Sch.1
	European honey-buzzard	<i>Pernis apivorus</i>	*1	2000	1	Birds Dir. Anx.1, W&CA Sch.1
	European honey-buzzard	<i>Pernis apivorus</i>	Unk	2006	2	Birds Dir. Anx.1, W&CA Sch.1
	Red kite	<i>Milvus milvus</i>	Unk	1997	1	Birds Dir. Anx.1, W&CA Sch.1
	Hen harrier	<i>Circus cyaneus</i>	*2	2010	1	Birds Dir. Anx.1, NERC Act, W&CA Sch.1, BOCC3-Red
	Common kestrel	<i>Falco tinnunculus</i>	*1	2012	28	Bern Convention Appendix 2, Local Spp. of Cons. Conc.

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Merlin	<i>Falco columbarius</i>	*1	2007	1	Birds Dir. Anx.1, W&CA Sch.1
	Water rail	<i>Rallus aquaticus</i>	*1	2007	3	Local Spp. of Cons. Conc.
	Little plover	<i>Charadrius dubius</i>	Unk	2005	141	W&CA Sch1, Local Spp. of Cons. Conc.
	Ringed plover	<i>Charadrius hiaticula</i>	*1	2005	208	Local Spp. of Cons. Conc.
	Kentish plover	<i>Charadrius alexandrinus</i>	*1	1999	1	W&CA Sch.1
	Pied avocet	<i>Recurvirostra avosetta</i>	Unk	1996	11	W&CA Sch.1, Birds Dir. Anx.1, Local Spp. of Cons. Conc.
	European golden plover	<i>Pluvialis apricaria</i>	*1	2012	20	Birds Dir. Anx.1
	Northern lapwing	<i>Vanellus vanellus</i>	*1	2012	77	NERC Act , BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., Bird-Red
	Dunlin	<i>Calidris alpina</i>	*1	2005	151	Local Spp. of Cons. Conc., Bird-Red
	Ruff	<i>Philomachus pugnax</i>	*1	1998	61	Birds Dir. Anx. 1, W&CA Sch.1, BOCC3-Red
	Common snipe	<i>Gallinago gallinago</i>	*1	2012	38	Local Spp. of Cons. Conc.
	Black-tailed godwit	<i>Limosa limosa</i>	*1	1995	4	W&CA Sch.1, BOCC3-Red
	Bar-tailed godwit	<i>Limosa lapponica</i>	*1	1997	2	Birds Dir. Anx. 1
	Eurasian curlew	<i>Numenius arquata</i>	*1	1996	1	NERC Act, BAP Priority National
	Common redshank	<i>Tringa totanus</i>	*1	1995	73	Local Spp. of Cons. Conc.
	Common greenshank	<i>Tringa nebularia</i>	*1	2000	86	W&CA Sch.1
	Green sandpiper	<i>Tringa ochropus</i>	*1	2008	244	Birds Dir. Anx.1, W&CA Sch. 1 Part 1
	Wood sandpiper	<i>Tringa glareola</i>	*1	2002	54	Birds Dir. Anx.1, W&CA Sch.1
	Mediterranean gull	<i>Larus melanocephalus</i>	*1	2005	1	Birds Dir. Anx.1, W&CA Sch.1
	Lesser black-backed gull	<i>Larus fuscus</i>	*1	2012	6	Local Spp. of Cons. Conc.
	Herring gull	<i>Larus argentatus</i>	*1	2012	6	BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Common tern	<i>Sterna hirundo</i>	*1	2012	23	Birds Directive Annex I, Bern Convention Appendix 2, Local Spp. of Cons. Conc.
	Arctic tern	<i>Sterna paradisaea</i>	*1	2003	1	Birds Dir. Anx. 1
	Stock pigeon	<i>Columba oenas</i>	*1	2012	12	Local Spp. of Cons. Conc.

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	European turtle dove	<i>Streptopelia turtur</i>	*1	2001	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Common cuckoo	<i>Cuculus canorus</i>	*1	1997	5	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Short-eared owl	<i>Asio flammeus</i>	*1	2005	1	Birds Dir. Anx. 1, Local Spp. of Cons. Conc.
	Barn owl	<i>Tyto alba</i>	Unk	2007	1	W&CA Sch.1, Local Spp. of Cons. Conc.
	Long-eared owl	<i>Asio otus</i>	Unk	1999	1	Local Spp. of Cons. Conc.
	Common swift	<i>Apus apus</i>	*1	2012	12	Local Spp of Cons Conc
	Common kingfisher	<i>Alcedo atthis</i>	*1	2012	56	Birds Dir.Anx .1, W&CA Sch.1, Local Spp. of Cons. Conc.
	Lesser spotted woodpecker	<i>Dendrocopos minor</i>	*1	1998	2	BAP Priority London, Local Spp. of Cons. Conc., BOCC3 - Red
	Sky lark	<i>Alauda arvensis</i>	*1	2012	39	NERC Act, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Marsh warbler	<i>Acrocephalus palustris</i>	Unk	1995	2	W&CA Sch.1, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Corn bunting	<i>Emberiza calandra</i>	Unk	1994	4	BOCC3 - red, BAP Priority London, Local Spp. of Cons. Conc.
	Dartford warbler	<i>Sylvia undata</i>	Unk	1997	2	Birds Dir. Anx. 1, W&CA Sch.1, Local Spp. of Cons. Conc.
	Sand martin	<i>Riparia riparia</i>	*1	2004	2	BAP Priority London, Local Spp. of Cons. Conc.
	Barn swallow	<i>Hirundo rustica</i>	*1	2012	12	Local Spp. of Cons. Conc.
	House martin	<i>Delichon urbicum</i>	*1	2007	11	Local Spp. of Cons. Conc.
	Tree pipit	<i>Anthus trivialis</i>	*1	1996	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Meadow pipit	<i>Anthus pratensis</i>	*1	2012	34	Local Spp. of Cons. Conc.
	Yellow wagtail	<i>Motacilla flava</i>	*1	2006	35	BAP Priority London, Local Spp. of Cons. Conc. , BOCC3-Red
	Blue-headed wagtail	<i>Motacilla flava subsp. flava</i>	*1	1999	6	BAP Priority London, Local Spp. of Cons. Conc. , BOCC3-Red
	Grey wagtail	<i>Motacilla cinerea</i>	*1	2012	61	Local Spp. of Cons. Conc.
	Hedge accentor	<i>Prunella modularis</i>	*1	2012	19	BAP Priority London, Local Spp. of Cons. Conc.

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Black redstart	<i>Phoenicurus ochruros</i>	*1	1999	3	W&CA Sch.1, BAP Priority London
	Black redstart	<i>Phoenicurus ochruros</i>	Unk	2005	5	Local Spp. of Cons. Conc.
	Stonechat	<i>Saxicola torquata</i>	*1	2007	22	W&CA Sch.1, BOCC3-Red
	Fieldfare	<i>Turdus pilaris</i>	*1	2012	11	BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Song thrush	<i>Turdus philomelos</i>	*1	2012	14	W&CA Sch.1, BOCC3-Red
	Redwing	<i>Turdus iliacus</i>	*1	2012	8	Local Spp. of Cons. Conc.
	Mistle thrush	<i>Turdus viscivorus</i>	*1	2012	8	Local Spp. of Cons. Conc.
	Willow warbler	<i>Phylloscopus trochilus</i>	*1	2012	12	Local Spp. of Cons. Conc.
	Goldcrest	<i>Regulus regulus</i>	*1	2012	9	W&CA Sch.1 Part 1, Local Spp. of Cons. Conc.
	Firecrest	<i>Regulus ignicapilla</i>	*2	2010	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Spotted flycatcher	<i>Muscicapa striata</i>	*1	2003	1	Local Spp. of Cons. Conc.
	Rook	<i>Corvus frugilegus</i>	*1	2000	1	BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Common starling	<i>Sturnus vulgaris</i>	*1	2012	6	NERC Act, BAP Priority National, BAP Priority London, Local Spp of Cons Conc, BOCC3-Red
	House sparrow	<i>Passer domesticus</i>	*1	2012	17	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Eurasian tree sparrow	<i>Passer montanus</i>	*1	2000	143	W&CA Sch.1
	Brambling	<i>Fringilla montifringilla</i>	*1	1998	3	BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Common linnet	<i>Carduelis cannabina</i>	*1	2012	30	BOCC3-Red
	Twite	<i>Carduelis flavirostris</i>	*1	1999	1	NERC Act, BAP Priority National, BOCC3-Red
	Lesser redpoll	<i>Carduelis cabaret</i>	*1	2012	2	W&CA Sch.1
	Common rosefinch	<i>Carpodacus erythrinus</i>	*1	1995	1	BAP Priority London
	Common bullfinch	<i>Pyrrhula pyrrhula</i>	*1	2012	13	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Reed bunting	<i>Emberiza schoeniclus</i>	*1	2012	39	Cons. Regs. Sch.2, Hab.&Spp. Dir. Anx. 4, W&CA Sch.5, BAP Priority London, Local Spp. of Cons. Conc.



	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Serotine	<i>Eptesicus serotinus</i>	*1	2007	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	West european hedgehog	<i>Erinaceus europaeus</i>	*1	1999	1	Local Spp. of Cons. Conc.
	Eurasian common shrew	<i>Sorex araneus</i>	*1	2012	1	Local Spp. of Cons. Conc.
	Eurasian pygmy shrew	<i>Sorex minutus</i>	*1	2012	1	Protection of Badgers Act, Local Spp. of Cons. Conc.
	Eurasian badger	<i>Meles meles</i>	Unk	2004	2	Protection of Badgers Act, Local Spp. of Cons. Conc.
	Unidentified bat	<i>Myotis</i>	*1	2008	8	Cons. Regs. Sch.2, W&CA Sch.5, BAP Priority London
	Daubenton's bat	<i>Myotis daubentonii</i>	*1	2008	14	Cons Regs. Sch.2, Hab&Spp Dir. Anx .4, W&CA Sch.5, NERC Act, BAP Priority London, Local Spp. of Cons. Conc.
	Noctule bat	<i>Nyctalus noctula</i>	*1	2008	3	Cons Regs. Sch.2, Hab&Spp Dir. Anx .4, W&CA Sch.5, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Pipistrelle bat species	<i>Pipistrellus</i>	*1	2012	17	Cons Regs. Sch.2, W&CA Sch.5, BAP Priority London
	Common pipistrelle	<i>Pipistrellus pipistrellus</i>	*1	2012	5	Cons Regs. Sch.2, Hab&Spp Dir. Anx .4, W&CA Sch.5, NERC Act, BAP Priority London, Local Spp. of Cons. Conc.
	Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	*1	2008	37	Cons Regs. Sch.2, Hab&Spp Dir Anx 4, W&CA Sch.5, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Nathusius's pipistrelle	<i>Pipistrellus nathusii</i>	*2	2006	1	Cons Regs. Sch.2, Hab&Spp Dir. Anx .4, W&CA Sch.5, BAP Priority London, Local Spp. of Cons. Conc.
	European otter	<i>Lutra lutra</i>	*1	2008	3	Cons Regs. Sch.2, Hab&Spp Dir. Anx. 2 & Anx 4, W&CA Sch5, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	European water vole	<i>Arvicola amphibius</i>	*1	2002	10	W&CA Sch.5, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Brown hare	<i>Lepus europaeus</i>	*1	2004	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
Green space	Common stonewort	<i>Chara vulgaris</i>	*1	1995	1	Local Spp. of Cons. Conc.
	Shady horsetail	<i>Equisetum pratense</i>	*1	2012	1	Nationally Scarce

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	Scots pine	<i>Pinus sylvestris</i>	*1	2012	4	Nationally Scarce
	Arrowhead	<i>Sagittaria sagittifolia</i>	*1	2009	2	Local Spp. of Cons. Conc.
	Greater pond-sedge	<i>Carex riparia</i>	*1	2012	28	Local Spp. of Cons. Conc.
	Gallingle	<i>Cyperus longus</i>	*1	2009	1	Nationally Scarce, RedList_GB-Lr(NT)
	Water-soldier	<i>Stratiotes aloides</i>	*1	1999	2	Nationally Scarce, RedList_GB-Lr(NT)
	Heath rush	<i>Juncus squarrosus</i>	*1	1996	1	Local Spp. of Cons. Conc.
	Chives	<i>Allium schoenoprasum</i>	*1	2009	1	Nationally Scarce
	Wild asparagus	<i>Asparagus prostratus</i>	*1	2009	1	NERC Act, BAP Priority National, Nationally Rare, RedList_GB-VU
	Bluebell	<i>Hyacinthoides non-scripta</i>	*1	2012	11	W&CA Sch.8, Local Spp. of Cons. Conc.
	Daffodil	<i>Narcissus pseudonarcissus</i>	*1	2012	5	Local Spp. of Cons. Conc.
	Whorl-grass	<i>Catabrosa aquatica</i>	*1	1995	2	Local Spp. of Cons. Conc.
	Lesser marshwort	<i>Apium inundatum</i>	*1	1995	1	Local Spp. of Cons. Conc.
	Lesser marshwort	<i>Apium inundatum</i>	*1	1996	1	NERC Act, BAP Priority National
	Cornflower	<i>Centaurea cyanus</i>	*1	2009	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., Rare, RedList_GB-Vulnerable (VU)
	Chamomile	<i>Chamaemelum nobile</i>	*1	2009	1	RedList_GB-VU
	Corn marigold	<i>Glebionis segetum</i>	*1	2012	1	W&C Sch.8, NERC Act, BAP Priority National, Local Spp. of Cons. Conc., Nationally Rare, RedList_GB-Endangered (EN)
	Least lettuce	<i>Lactuca saligna</i>	*1	1999	1	W&C Sch.8, NERC Act, BAP Priority National, Local Spp. of Cons. Conc. Nationally Rare, RedList_GB-Critical(CR)
	Green hound's-tongue	<i>Cynoglossum germanicum</i>	*1	2009	2	Local Spp. of Cons. Conc.
	Viper's-bugloss	<i>Echium vulgare</i>	*1	2012	1	Nationally Scarce
	Wild cabbage	<i>Brassica oleracea</i>	*1	2009	2	Nationally Scarce
	Dittander	<i>Lepidium latifolium</i>	*1	1996	2	Nationally Scarce

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	Dittander	<i>Lepidium latifolium</i>	*3	2006	12	Local Spp. of Cons. Conc.
	Greater chickweed	<i>Stellaria neglecta</i>	*1	2004	1	Local Spp. of Cons. Conc.
	Imperforate St John's wort	<i>Hypericum maculatum</i>	*1	2009	1	Local Spp of Cons Conc
	Devil's-bit scabious	<i>Succisa pratensis</i>	*1	2004	1	Nationally Scarce
	Sea-buckthorn	<i>Hippophae rhamnoides</i>	*1	2009	1	Local Spp. of Cons. Conc.
	Bell heather	<i>Erica cinerea</i>	*1	1996	1	Local Spp. of Cons. Conc., RedList_GB-Lr(NT)
	Petty whin	<i>Genista anglica</i>	*1	1996	1	Local Spp. of Cons. Conc.
	Dyer's Greenweed	<i>Genista tinctoria</i>	*1	1996	1	Local Spp. of Cons. Conc., Nationally Scarce, RedList_GB-VU
	Yellow vetchling	<i>Lathyrus aphaca</i>	*1	2012	2	Local Spp. of Cons. Conc., Nationally Scarce
	Toothed medick	<i>Medicago polymorpha</i>	*1	2009	1	Local Spp. of Cons. Conc.
	Dwarf gorse	<i>Ulex minor</i>	*1	1996	1	Local Spp. of Cons. Conc.
	Spring vetch	<i>Vicia lutea</i>	*1	2008	2	Nationally Scarce, RedList_GB-VU
	Slender tare	<i>Vicia parviflora</i>	*1	2012	1	Local Spp. of Cons. Conc.
	Meadow crane's-bill	<i>Geranium pratense</i>	*1	2010	2	Nationally Scarce, RedList_GB-Data Deficient (DD)
	Round-leaved mint	<i>Mentha suaveolens</i>	*1	2009	1	Local Spp. of Cons. Conc.
	Wild clary	<i>Salvia verbenaca</i>	*1	2012	4	W&C Sch.8, NERC Act, BAP Priority National, Nationally Rare, RedList_GB-EN
	Water germander	<i>Teucrium scordium</i>	*1	1996	1	Nationally Scarce
	Perennial flax	<i>Linum perenne</i>	*1	2009	1	Local Spp. of Cons. Conc., Nationally Scarce
	Fringed water-lily	<i>Nymphoides peltata</i>	*1	2009	1	Local Spp. of Cons. Conc.
	Water violet	<i>Hottonia palustris</i>	*1	2012	3	Local Spp. of Cons. Conc.
	Brookweed	<i>Samolus valerandi</i>	*1	2009	1	Local Spp. of Cons. Conc.
	River water-crowfoot	<i>Ranunculus fluitans</i>	*1	2009	1	Local Spp. of Cons. Conc.
	Ivy-leaved crowfoot	<i>Ranunculus hederaceus</i>	*1	2012	3	Local Spp. of Cons. Conc.
	Water avens	<i>Geum rivale</i>	*1	2010	2	Local Spp. of Cons. Conc.

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	Great burnet	<i>Sanguisorba officinalis</i>	*1	2009	1	Nationally Rare, RedList_GB-CR
	Service-tree	<i>Sorbus domestica</i>	*1	2012	1	BAP Priority London, Local Spp. of Cons. Conc.
	Black poplar	<i>Populus nigra subsp.betulifolia</i>	*1	2009	1	Nationally Scarce
	Lime	<i>Tilia platyphyllos x cordata</i> = <i>T. x europaea</i>	*1	2012	9	RedList_GB-Lr(NT)
	Wild pansy	<i>Viola tricolor</i>	*1	2009	2	BAP Priority London, Local Spp. of Cons. Conc.
	Mistletoe	<i>Viscum album</i>	*1	2012	6	Local Spp of Cons Conc
	Argiope bruennichi	<i>Argiope bruennichi</i>	*1	2012	3	Hab&spp Dir. Anx .2, W&CA Sch.5, NERC Act, BAP Priority National, Local Spp. of Cons. Conc.
	White-clawed freshwater crayfish	<i>Austropotamobius pallipes</i>	*1	2010	1	Local Spp. of Cons. Conc.
	Red-eyed damselfly	<i>Erythromma najas</i>	*1	2012	1	Local Spp. of Cons. Conc.
	Emerald damselfly	<i>Lestes sponsa</i>	*1	2012	3	Local Spp. of Cons. Conc.
	Hairy dragonfly	<i>Brachytron pratense</i>	*1	2012	3	Local Spp. of Cons. Conc.
	Ruddy darter	<i>Sympetrum sanguineum</i>	*1	2001	1	Nationally Notable B
	Panagaeus bipustulatus	<i>Panagaeus bipustulatus</i>	*1	2000	1	Hab&spp Dir. Anx.2, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., Nationally Notable B
	Stag beetle	<i>Lucanus cervus</i>	*1	2009	38	Local Spp. of Cons. Conc., Nationally Notable B
	Phytoecia cylindrica	<i>Phytoecia cylindrica</i>	*1	1998	1	Local Spp. of Cons. Conc.
	Green hairstreak	<i>Callophrys rubi</i>	*1	2013	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.nc, RedList_GB-EN
	White-letter hairstreak	<i>Satyrrium w-album</i>	*1	2010	2	Local Spp. of Cons. Conc.
	Brown argus	<i>Aricia agestis</i>	*1	2012	21	Local Spp. of Cons. Conc.
	Silver-washed fritillary	<i>Argynnis paphia</i>	*1	2010	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., RedList_GB-Lr(NT)
	Small heath	<i>Coenonympha pamphilus</i>	*1	2013	45	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Ghost moth	<i>Hepialus humuli subsp. Humuli</i>	*1	2000	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.

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	Goat moth	<i>Cossus cossus</i>	*1	2013	3	Nationally Notable B
	Wainscot neb	<i>Monochroa palustrella</i>	*1	2009	2	Nationally Notable B
	Bulrush veneer	<i>Calamotropha paludella</i>	*1	2009	2	Nationally Notable B
	Giant water-veneer	<i>Schoenobius gigantella</i>	*1	2008	1	Nationally Notable B
	Pied grey	<i>Eudonia delunella</i>	*1	2008	1	Nationally Notable B
	Sulphur pearl	<i>Sitochroa palealis</i>	*1	2008	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Lackey	<i>Malacosoma neustria</i>	*1	2008	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Oak hook-tip	<i>Watsonalla binaria</i>	*1	1999	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Blood-vein	<i>Timandra comae</i>	*1	2009	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Shaded broad-bar	<i>Scotopteryx chenopodiata</i>	*1	2008	2	Local Spp. of Cons. Conc.
	Horse chestnut	<i>Pachycnemia hippocastanaria</i>	*1	2012	13	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Dusky thorn	<i>Ennomos fuscantaria</i>	*1	1999	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Brindled beauty	<i>Lycia hirtaria</i>	*1	2012	4	Local Spp. of Cons. Conc.
	Great oak beauty	<i>Hypomecis roboraria</i>	*1	2009	1	Local Spp. of Cons. Conc.
	Dingy footman	<i>Eilema griseola</i>	*1	2009	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	White ermine	<i>Spilosoma lubricipeda</i>	*1	2012	5	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Buff ermine	<i>Spilosoma luteum</i>	*1	2009	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Cinnabar	<i>Tyria jacobaeae</i>	*1	2012	15	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.

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	Small square-spot	<i>Diarsia rubi</i>	*1	2008	2	Local Spp. of Cons. Conc.
	Lead-coloured drab	<i>Orthosia populeti</i>	*1	2009	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Powdered quaker	<i>Orthosia gracilis</i>	*1	2013	3	Local Spp. of Cons. Conc.
	Obscure wainscot	<i>Mythimna obsoleta</i>	*1	2012	3	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Shoulder-striped wainscot	<i>Mythimna comma</i>	*1	2011	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Deep-brown dart	<i>Aporophyla lutulenta</i>	*1	2002	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Green-brindled crescent	<i>Allophyes oxyacanthae</i>	*1	1997	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Beaded chestnut	<i>Agrochola lychnidis</i>	*1	1997	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Centre-barred sawfly	<i>Atethmia centrigo</i>	*1	1999	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Sawfly	<i>Xanthia icteritia</i>	*1	2000	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Dusky-lemon sawfly	<i>Xanthia gilvago</i>	*1	1999	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Knot grass	<i>Acronicta rumicis</i>	*1	2012	3	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Mouse moth	<i>Amphipyra tragopoginis</i>	*1	1999	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Rosy rustic	<i>Hydraecia micacea</i>	*1	1999	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Brown-veined wainscot	<i>Archanara dissoluta</i>	*1	2008	1	Local Spp. of Cons. Conc.
	Large wainscot	<i>Rhizedra lutosa</i>	*1	1999	1	NERC Act, BAP Priority National
	Rustic	<i>Hoplodrina blanda</i>	*1	2011	4	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.

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	Cream-bordered green pea	<i>Earias clorana</i>	*1	2008	1	Local Spp. of Cons. Conc.
	Mother shipton	<i>Callistege mi</i>	*1	2012	5	Local Spp. of Cons. Conc.
	Beautiful snout	<i>Hypena crassalis</i>	*1	1999	1	Local Spp. of Cons. Conc.
	Pinion-streaked snout	<i>Schrankia costaestrigalis</i>	*1	2008	1	Local Spp. of Cons. Conc.
	Mylengyna triangulifera	<i>Melangyna triangulifer</i>	*1	1998	1	Nationally Notable, Local Spp. of Cons. Conc.
	Drab wood-soldierfly	<i>Solva marginata</i>	*1	1999	1	Nationally Notable, Local Spp. of Cons. Conc.
	Black colonel	<i>Odontomyia tigrina</i>	*1	2011	2	Nationally Notable, Local Spp. of Cons. Conc.
	Banded general	<i>Stratiomys potamida</i>	*1	2000	1	Nationally Notable
	Brachyopa insensillis	<i>Brachyopa insensilis</i>	*1	1999	1	Nationally Notable, Local Spp. of Cons. Conc.
	Brachypalpoides lentus	<i>Brachypalpoides lentus</i>	*1	1998	1	Local Spp. of Cons. Conc.
	Cheilosia barbata	<i>Cheilosia barbata</i>	*1	1998		Nationally Notable
	Cheilosia velutina	<i>Cheilosia velutina</i>	*1	1998	1	Nationally Notable
	Didea fasciata	<i>Didea fasciata</i>	*1	1998	1	Nationally Notable, Local Spp. of Cons. Conc.
	Epistrophe diaphana	<i>Epistrophe diaphana</i>	*1	1998	2	Nationally Notable
	Neoascia interrupta	<i>Neoascia interrupta</i>	*1	1998	1	Nationally Notable
	Parhelophilus versicolor	<i>Parhelophilus versicolor</i>	*1	2001	1	Local Spp. of Cons. Conc.
	Pipizella virens	<i>Pipizella virens</i>	*1	1998	1	Nationally Notable
	Volucella inais	<i>Volucella inanis</i>	*1	2001	2	Nationally Notable, Local Spp. of Cons. Conc.
	Volucella zonaria	<i>Volucella zonaria</i>	*1	2012	4	Nationally Notable, Local Spp. of Cons. Conc.
	Ornate tailed digger wasp	<i>Cerceris rybyensis</i>	*1	2000	1	Local Spp. of Cons. Conc.
	Lasioglossum (Evylaeus) malachurum	<i>Lasioglossum (Evylaeus) malachurum</i>	*1	2000	3	Nationally Notable B, Local Spp. of Cons. Conc.
	Bullhead	<i>Cottus gobio</i>	*1	1999	1	Habs&Spp Dir. Anx.2, Local Spp. of Cons. Conc.
	Common frog	<i>Rana temporaria</i>	*1	2011	5	Local Spp. of Cons. Conc.
	Common toad	<i>Bufo bufo</i>	*1	2007	9	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.



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	Slow-worm	<i>Anguis fragilis</i>	*1	2012	2	W&CA Sch.5, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Grass snake	<i>Natrix natrix</i>	*1	2013	38	W&CA Sch5, NERC Act, BAP Priority National, BAP Priority London, Local Spp.of Cons. Conc.
	Mute swan	<i>Cygnus olor</i>	*1	2012	50	Local Spp. of Cons. Conc.
	Whooper swan	<i>Cygnus cygnus</i>	*1	1988	1	Birds Dir. Anx.1, W&CA Sch.1
	Barnacle goose	<i>Branta leucopsis</i>	*1	2013	1	Local Spp. of Cons. Conc.
	Common shelduck	<i>Tadorna tadorna</i>	*1	2003	5	Local Spp. of Cons. Conc.
	Eurasian wigeon	<i>Anas penelope</i>	*1	2011	23	Local Spp. of Cons. Conc.
	Gadwall	<i>Anas strepera</i>	*1	2013	44	Local Spp. of Cons. Conc.
	Eurasian teal	<i>Anas crecca</i>	*1	2013	25	Local Spp. of Cons. Conc.
	Northern pintail	<i>Anas acuta</i>	*1	2011	2	Local Spp. of Cons. Conc.
	Garganey	<i>Anas querquedula</i>	*1	2008	1	W&CA Sch.1, Local Spp. of Cons. Conc.
	Northern shoveler	<i>Anas clypeata</i>	*1	2012	38	Local Spp. of Cons. Conc.
	Common goldeneye	<i>Bucephala clangula</i>	*1	2012	8	Local Spp. of Cons. Conc.
	Smew	<i>Mergellus albellus</i>	*1	2012	99	Local Spp. of Cons. Conc.
	Black-necked grebe	<i>Podiceps nigricollis</i>	*1	2000	2	W&CA Sch.1, Local Spp. of Cons. Conc.
	Great bittern	<i>Botaurus stellaris</i>	*1	2013	52	Birds Dir. Anx.1, W&CA Sch.1, NERC Act, BAP Priority National, BAP Priority London, BOCC3-Red.
	Little egret	<i>Egretta garzetta</i>	*1	2013	5	Birds Dir. Anx.1, W&CA Sch.1
	Grey heron	<i>Ardea cinerea</i>	*1	2013	44	Local Spp. of Cons. Conc.
	Red kite	<i>Milvus milvus</i>	*1	2002	1	Birds Dir. Anx.1, W&CA Sch.1
	Red kite	<i>Milvus milvus</i>	Unk	2011	2	W&CA Sch.1, Local Spp. of Cons. Conc.
	Common kestrel	<i>Falco tinnunculus</i>	*1	2013	45	Bern Convention Apx.2, Local Spp. of Cons. Conc.
	Merlin	<i>Falco columbarius</i>	*1	2008	1	Birds Dir. Anx.1, W&CA Sch.1 Part 1
	Water rail	<i>Rallus aquaticus</i>	*1	2013	38	Birds Dir Anx. 1

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	Common crane	<i>Grus grus</i>	*1	2007	1	W&CA Sch. 1 Part 1, Local Spp. of Cons. Conc.
	Northern lapwing	<i>Vanellus vanellus</i>	*1	2012	14	NERC Act , BAP Priority National, BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Common snipe	<i>Gallinago gallinago</i>	*1	2012	23	Local Spp. of Cons. Conc.
	Eurasian woodcock	<i>Scolopax rusticola</i>	*1	2012	12	Local Spp. of Cons. Conc.
	Whimbrel	<i>Numenius phaeopus</i>	*1	2001	3	W&CA Sch. 1 Part 1, BOCC3-Red
	Green sandpiper	<i>Tringa ochropus</i>	*1	2012	13	Birds Dir. Anx.1, W&CA Sch. 1 Part 1
	Mediterranean gull	<i>Larus melanocephalus</i>	*1	2011	2	Birds Dir. Anx.1, W&CA Sch. 1 Part 1
	Lesser black-backed gull	<i>Larus fuscus</i>	*1	2012	17	Local Spp. of Cons. Conc.
	Herring gull	<i>Larus argentatus</i>	*1	2012	12	BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Common tern	<i>Sterna hirundo</i>	*1	2013	48	Bern Convention Appendix 2, Birds Directive Annex I, local spp of cons. Conc.
	Stock Pigeon	<i>Columba oenas</i>	*1	2012	8	Local Spp. of Cons. Conc.
	Common cuckoo	<i>Cuculus canorus</i>	*1	2012	9	NERC Act , BAP Priority National, BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Tawny owl	<i>Strix aluco</i>	*1	2011	12	Local Spp. of Cons. Conc.
	Short-eared owl	<i>Asio flammeus</i>	*1	2012	2	Birds Dir. Anx. 1, Local Spp. of Cons. Conc.
	Common swift	<i>Apus apus</i>	*1	2013	18	Local Spp. of Cons. Conc.
	Common kingfisher	<i>Alcedo atthis</i>	*1	2013	72	Birds Dir. Anx.1, W&CA Sch. 1 Part 1, Local Spp. of Cons. Con.
	Lesser spotted woodpecker	<i>Dendrocopos minor</i>	*1	2003	17	BOCC3- Red, BAP Priority London, Local Spp. of Cons. Conc.
	Sky lark	<i>Alauda arvensis</i>	*1	2012	30	NERC Act , BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Sandmartin	<i>Riparia riparia</i>	*1	2008	3	BAP Priority London, Local Spp. of Cons. Conc.
	Barn swallow	<i>Hirundo rustica</i>	*1	2013	16	Local Spp. of Cons. Conc.
	House martin	<i>Delichon urbicum</i>	*1	2011	8	Local Spp. of Cons. Conc.
	Meadow pipit	<i>Anthus pratensis</i>	*1	2012	8	Local Spp. of Cons. Conc.

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Yellow wagtail	<i>Motacilla flava</i>	*1	2012	4	Bird- Red, BAP Priority London, Local Spp of Cons Conc
	Grey wagtail	<i>Motacilla cinerea</i>	*1	2013	23	Local Spp. of Cons. Conc.
	Hedge accentor	<i>Prunella modularis</i>	*1	2012	34	BAP Priority London, Local Spp. of Cons. Conc.
	Common nightingale	<i>Luscinia megarhynchos</i>	*1	2012	1	Local Spp. of Cons. Conc.
	Stonechat	<i>Saxicola torquata</i>	*1	2008	3	Local Spp. of Cons. Conc.
	Ring Ouzel	<i>Turdus torquatus</i>	*1	2005	3	NERC Act , BAP Priority National, BOCC3-Red
	Fieldfare	<i>Turdus pilaris</i>	*1	2012	10	W&CA Sch.1 Part 1, BOCC3-Red
	Song thrush	<i>Turdus philomelos</i>	*1	2013	39	BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Redwing	<i>Turdus iliacus</i>	*1	2013	23	W&CA Sch.1 Part 1, BOCC3-Red
	Mistle thrush	<i>Turdus viscivorus</i>	*1	2012	7	Local Spp. of Cons. Conc.
	Common grasshopper warbler	<i>Locustella naevia</i>	*1	2008	2	NERC Act , BAP Priority National, BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Willow warbler	<i>Phylloscopus trochilus</i>	*1	2013	45	Local Spp. of Cons. Conc.
	Goldcrest	<i>Regulus regulus</i>	*1	2013	28	Local Spp. of Cons. Conc.
	Firecrest	<i>Regulus ignicapilla</i>	*1	2011	33	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Spotted flycatcher	<i>Muscicapa striata</i>	*1	2008	6	NERC Act , BAP Priority National, BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Common starling	<i>Sturnus vulgaris</i>	*1	2012	25	BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	House sparrow	<i>Passer domesticus</i>	*1	2013	88	NERC Act , BAP Priority National, BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Brambling	<i>Fringilla montifringilla</i>	*1	2008	2	W&CA Sch.1 Part 1
	Common linnet	<i>Carduelis cannabina</i>	*1	2012	24	BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Lesser redpoll	<i>Carduelis cabaret</i>	*1	2012	8	NERC Act , BAP Priority National, BOCC3-Red
	Common redpoll	<i>Carduelis flammea</i>	*1	2013	13	BAP Priority London, Local Spp. of Cons. Conc.
	Common bullfinch	<i>Pyrrhula pyrrhula</i>	*1	2012	15	BAP Priority London

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Reed bunting	<i>Emberiza schoeniclus</i>	*1	2013	32	NERC Act , BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Serotine	<i>Eptesicus serotinus</i>	*1	2005	2	Cons Regs. Sch.2, Hab. & spp. Dir. Anx. 4, W&CA Sch.5 Sec. 9.4b, W&CA Sch.5 Sec.9.4c, BAP Priority London, Local Spp. of Cons. Conc.
	West European hedgehog	<i>Erinaceus europaeus</i>	*1	2007	7	NERC Act , BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Eurasian common shrew	<i>Sorex araneus</i>	*1	2012	3	Local Spp. of Cons. Conc.
	Bats	<i>Vespertilionidae</i>	*1	2008	4	Cons. Regs. Sch.2, W&CA Sch.5 Sec. 9.4b, W&CA Sch.5, BAP Priority London
	Daubenton's bat	<i>Myotis daubentonii</i>	*1	2011	5	Cons. Regs. Sch.2, Hab. & spp. Dir. Anx. 4, W&CA Sch.5 Sec. 9.4b, BAP Priority Local Spp. of Cons. Conc.
	Lesser noctule	<i>Nyctalus leisleri</i>	*1	2008	3	Cons Regs 2010 Sch2, Hab&spp Dir Anx 4, W&CA Sch5 Sec 9.4b, W&CA Sch5, BAP Priority London, Local Spp of Cons Conc
	Noctule bat	<i>Nyctalus noctula</i>	*1	2008	11	Cons. Regs. Sch2, Hab. & spp. Dir. Anx. 4, W&CA Sch.5, NERC Act , BAP Priority National, BAP Priority London, Local Spp of Cons. Conc.
	Pipistrelle bat species	<i>Pipistrellus</i>	*1	2008	18	Cons. Regs. Sch.2, W&CA Sch.5, W&CA Sch.5, BAP Priority London
	Nathusius's pipistrelle	<i>Pipistrellus nathusii</i>	*1	2013	24	Cons. Regs. Sch. 2, Hab. & spp. Dir. Anx. 4, W&CA Sch.5, BAP Priority London, Local Spp. of Cons. Conc.
	Common pipistrelle	<i>Pipistrellus pipistrellus</i>	*1	2013	15	Cons. Regs. Sch.2, Hab&spp Dir Anx 4, W&CA Sch5, NERC Act, BAP Priority London, Local Spp. of Cons. Conc.
	Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	*1	2013	32	Cons. Regs. Sch. 2, Hab&spp Dir Anx 4, NERC Act , BAP Priority National, W&CA Sch5, BAP Priority Local Spp. of Cons. Conc.
	Brown long-eared bat	<i>Plecotus auritus</i>	*1	2003	4	W&CA Sch.5, Cons Regs.Sch. 2, Hab. & spp. Dir. Anx. 4, NERC Act , BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	European otter	<i>Lutra lutra</i>	*1	2010	1	Cons. Regs. Sch.2, Hab. & spp. Dir. Anx. 2, Hab. & spp. Dir. Anx. 4, NERC Act , BAP Priority National, W&CA Sch5, BAP Priority London, Local Spp. of Cons. Conc.

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	European water vole	<i>Arvicola amphibius</i>	*1	2012	16	W&CA Sch.5, NERC Act , BAP Priority National, , BAP Priority London, Local Spp. of Cons. Conc.
	Scots pine	<i>Pinus sylvestris</i>	*4	1997	2	Nationally Scarce
	Frogbit	<i>Hydrocharis morsus-ranae</i>	*3	2005	7	Redlist_GB-VU
	Heath rush	<i>Juncus squarrosus</i>	*4	1997	4	Local Spp. of Cons. Conc.
	Bluebell	<i>Hyacinthoides non-scripta</i> <i>x hispanica</i> = <i>h. x massartiana</i>	*2 *4	2005	1	W&CA Sch.8, Local Spp. of Cons. Conc.
	Cut-grass	<i>Leersia oryzoides</i>	*4	2002	1	W&CA Sch.8, BAP NERC Act , BAP Priority National, Priority London, Local Spp of Cons Conc, Nationally Rare, RedList_GB-EN
	Opposite-leaved pondweed	<i>Groenlandia densa</i>	*2 *4	1996	7	Redlist_GB-VU
	Hairlike pondweed	<i>Potamogeton trichoides</i>	*4	1998	1	Local Spp of Cons Conc
	Fine-leaved water-dropwort	<i>Oenanthe aquatica</i>	*4	2005	8	Local Spp of Cons Conc
	Tubular water-dropwort	<i>Oenanthe fistulosa</i>	*3	2005	8	NERC Act , BAP Priority National, RedList_GB-VU
	Greater water-parsnip	<i>Sium latifolium</i>	*4	2005	15	NERC Act, BAP Priority National, Nationally Scarce, RedList_GB-Endangered
	Smith's pepperwort	<i>Lepidium heterophyllum</i>	*4	1998	1	Local Spp. of Cons. Conc.
	Narrow-leaved pepperwort	<i>Lepidium rudemale</i>	*2 *3 *4	1996	6	Local Spp. of Cons. Conc.
	Upright chickweed	<i>Moenchia erecta</i>	*4	1996	3	Local Spp. of Cons. Conc.
	Bell heather	<i>Erica cinerea</i>	*4	1997	4	Local Spp. of Cons. Conc., Redlist_GB-Lr(NT)
	Petty whin	<i>Genista anglica</i>	*4	1997	5	Local Spp. of Cons. Conc.
	Yellow vetchling	<i>Lathyrus aphaca</i>	*4	2003	7	Local Spp. of Cons. Conc., Nationally Rare, Redlist_GB-Lr(NT)
	Hairy vetchling	<i>Lathyrus hirsutus</i>	*4	1996	1	Local Spp. of Cons. Conc., Nationally Rare
	Dwarf gorse	<i>Ulex minor</i>	*4	1997	4	Local Spp. of Cons. Conc.
	Yellow-vetch	<i>Vicia lutea</i>	*4	1997	3	Nationally Scarce, Redlist_GB-Lr(NT)

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Meadow crane's-bill	<i>Geranium pratense</i>	*2 *3 *4	1996	18	Local Spp. of Cons. Conc.
	Whorled Water-milfoil	<i>Myriophyllum verticillatum</i>	*3 *4	1996	4	Local Spp. of Cons. Conc., Redlist_GB-VU
	Wild Clary	<i>Salvia verbenca</i>	*4	2003	1	Local Spp. of Cons. Conc.
	Fringed water-lily	<i>Nymphoides peltata</i>	*4	1996	2	Local Spp. of Cons. Conc., Nationally Scarce
	Heath milkwort	<i>Polygala serpyllifolia</i>	*4	1995	4	Local Spp. of Cons. Conc.
	Water-violet	<i>Hottonia palustris</i>	*4	1996	2	Local Spp. of Cons. Conc.
	Mousetail	<i>Myosurus minimus</i>	*4	2004	3	Redlist_GB-VU
	River water-crowfoot	<i>Ranunculus fluitans</i>	*2 *3 *4	2006	6	Local Spp. of Cons. Conc.
	Common meadow-rue	<i>Thalictrum flavum</i>	*4	2005	10	Local Spp. of Cons. Conc.
	Hybrid cinquefoil	<i>Potentilla anglica x reptans = P. x mixta</i>	*4	2006	2	Local Spp. of Cons. Conc.
	Hoary cinquefoil	<i>Potentilla argentea</i>	*4	2003	5	Local Spp. of Cons. Conc., RedList_GB-Lr(NT)
	Small-flowered sweet-briar	<i>Rosa micrantha</i>	*4	2003	2	Local Spp. of Cons. Conc.
	Black poplar	<i>Populus nigra subsp. Betulifolia</i>	*4	2003	3	BAP Priority London
	Meadow saxifridge	<i>Saxifraga granulata</i>	*4	2004	4	Local Spp. of Cons. Conc.
	Heath dog-violet	<i>Viola canina subsp. Canina</i>	*2 *4	1995	5	Local Spp. of Cons. Conc., RedList_GB-Lr(NT)
	Green hairstreak	<i>Callophrys rubi</i>	*2	2011	1	Local Spp. of Cons. Conc.
	White-letter hairstreak	<i>Satyrrium w-album</i>	*2	2010	8	NERC Act , BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., RedList_GB-EN
	Brown argus	<i>Aricia agestis</i>	*2	2013	103	Local Spp. of Cons. Conc.
	Silver-washed fritillary	<i>Argynnis paphia</i>	*2	2010	2	Local Spp. of Cons. Conc.
	Wall	<i>Lasiommata megera</i>	*2	2000	2	NERC Act , BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., RedList_GB-Lr(NT)
	Marbled white	<i>Melanargia galathea</i>	*2	2013	10	Local Spp. of Cons. Conc.
	Small heath	<i>Coenonympha pamphilus</i>	*2	2013	435	NERC Act , BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., RedList_GB-Lr(NT)

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Astata boops	<i>Astata boops</i>	*2	1997	1	Local Spp. of Cons. Conc.
	Ornate tailed digger wasp	<i>Cerceris rybyensis</i>	*2	1997	1	Local Spp. of Cons. Conc.
	Hylaeus (Abrupta) cornutus	<i>Hylaeus (Abrupta) cornutus</i>	*2	1997	1	Nationally Notable A
	Andrena (Plastandrena) tibialis	<i>Andrena (Plastandrena) tibialis</i>	*2	1997	1	Local Spp. of Cons. Conc.
	Yellow legged mining bee	<i>Andrena (Zonandrena) flavipes</i>	*2	1997	1	Local Spp. of Cons. Conc.
	Panurgus banksianus	<i>Panurgus banksianus</i>	*2	1997	1	Local Spp. of Cons. Conc.
	Lasioglossum (Evylaeus) malachurum	<i>Lasioglossum (Evylaeus) malachurum</i>	*2	1997	1	Nationally Notable B, Local Spp. of Cons. Conc.
	Nomada fucata	<i>Nomada fucata</i>	*2	1997	1	Nationally Notable A
	Hen harrier	<i>Circus cyaneus</i>	*2	2010	1	Birds Dir. Anx. 1, W&CA Sch.1 Part 1NERC Act , , BOCC3-Red
	Eurasian marsh harrier	<i>Circus aeruginosus</i>	Unk	2012	1	W&CA Sch.1 Part 1, Local Spp. of Cons. Conc.
	Eurasian hobby	<i>Falco subbuteo</i>	Unk	2013	40	W&CA Sch.1 Part 1, Local Spp. of Cons. Conc.
	Peregrine falcon	<i>Falco peregrinus</i>	Unk	2012	3	Birds Dir. Anx. 1, W&CA Sch.1 Part 1, BAP Priority London, Local Spp. of Cons. Conc.
	Common snipe	<i>Gallinago gallinago</i>	Unk	2013	4	Local Spp. of Cons. Conc.
	Little plover	<i>Charadrius dubius</i>	Unk	2011	10	W&CA Sch.1 Part 1, Local Spp. of Cons. Conc.
	European turtle dove	<i>Streptopelia turtur</i>	Unk	1999	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Black redstart	<i>Phoenicurus ochruros</i>	Unk	2008	5	W&CA Sch.1 Part 1, BAP Priority London
	Cetti's warbler	<i>Vettia vetti</i>	Unk	2012	12	W&CA Sch.1 Part 1, Local Spp. of Cons. Conc.
	Corn bunting	<i>Emberiza calandra</i>	Unk	1994	4	BOCC3 - Red, BAP Priority London, Local Spp. of Cons. Conc.
	Eurasian badger	<i>Meles meles</i>	Unk	2012	2	Protection of Badgers Act, Local Spp. of Cons. Conc.
Surrey Biodiv	Water Vole	<i>Arvicola amphibius</i>	*1	1998	1	W&CA Sch. 5
	House martin	<i>Delichon urbicum</i>	*1	1995	3	Bern Convention Appendix 2



	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Common Kestrel	<i>Falco tinnunculus</i>	*1	2009	2	Bern Convention Appendix 2
	Ringed plover	<i>Charadrius hiaticula</i>	*1	1995	2	Bern Convention Appendix 2
	Stag beetle	<i>Lucanus cervus</i>	*1	1998	4	W&CA Sch. 5, Bern Convention Appendix 3, Habitats Directive Annex 2 - non-priority species
	Grass snake	<i>Natrix natrix</i>	*1	1995	1	W&CA Sch5, NERC Act, BAP Priority National, BAP Priority London, Local Spp.of Cons. Conc.
	Common tern	<i>Sterna hirundo</i>	*1	1995	2	Bern Convention Appendix 2, Birds Directive Annex I, local spp. of cons. Conc.
	Green woodpecker	<i>Picus viridis</i>	*1	1995	2	Bern Convention Appendix 2
	Greenfinch	<i>Carduelis chloris</i>	*1	1995	1	Bern Convention Appendix 2
	Linnet	<i>Carduelis cannabina</i>	*1	1995	2	Bern Convention Appendix 2
	Hedgehog	<i>Erinaceus europaeus</i>	*1	1997	1	Bern Convention Appendix 3
	Swallow	<i>Hirundo rustica</i>	*1	1995	2	Bern Convention Appendix 2
	Robin	<i>Erithacus rubecula</i>	*1	1995	1	Bern Convention Appendix 2
	Blue tit	<i>Cyanistes caeruleus</i>	*1	1995	1	Bern Convention Appendix 2
	Great tit	<i>Parus major</i>	*1	1995	1	Bern Convention Appendix 2
	Goldfinch	<i>Carduelis carduelis</i>	*1	1995	1	Bern Convention Appendix 2
	Smooth newt	<i>Lissotriton vulgaris</i>	*1	2003	1	W&CA Sch 5, Bern Convention Appendix 3
	Mallard	<i>Anas platyrhynchos</i>	*1	1995	4	BOCC3 - Amber / Surrey status - Abundant breeding resident
	Tubular water-dropwort	<i>Oenanthe fistulosa</i>	*1	1995	1	IUCN - Vulnerable / Surrey status - Rather Rare
	Tasteless water-pepper	<i>Persicaria mitis</i>	*1	1995	1	IUCN - Vulnerable / Surrey status - Rare
	Wild pansy	<i>Viola tricolor</i>	*1	1995	1	IUCN- Near Threatened / Surrey status - Frequent on chalk
	Lapwing	<i>Vanellus vanellus</i>	*1	1995	2	BOCC3 - Red / Surrey status - Moderately common breeding resident
	A water beetle	<i>Ilybius fenestratus</i>	*1	2010	1	Nationally Notable B / Surrey status - Local
	A scavenger water beetle	<i>Anacaena bipustulata</i>	*1	1996	1	Nationally Notable B / Surrey status - Local
	A scavenger water beetle	<i>Helochaeres lividus</i>	*1	1996	1	Nationally Notable B / Surrey status - Local
	A caddisfly	<i>Ceraclea senilis</i>	*1	1996	1	Nationally Notable B

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Small heath	<i>Coenonympha pamphilus</i>	*1	2010	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Swift	<i>Apus apus</i>	*1	1996	1	BOCC3 - Amber / Surrey status - Common summer visitor
	Skylark	<i>Alauda arvensis</i>	*1	1996	2	BOCC3 - Red / Surrey status - Common, but reduced breeding resident
	Pochard	<i>Aythya ferina</i>	*1	1995	2	BOCC3 - Amber / Surrey Status - Moderately common winter visitor
	Black-headed gull	<i>Larus ridibundus</i>	*1	1995	2	BOCC3 - Amber / Surrey Status - Mcommon winter visitor, has bread
	House sparrow	<i>Passer domesticus</i>	*1	1995	1	BOCC3 - Red / Surrey Status - Locally common breeding resident
	Tufted duck	<i>Aythya fuligula</i>	*1	1995	1	BOCC3 - Amber / Surrey Status - Common summer visitor, breeding annually
	Starling	<i>Sturnus vulgaris</i>	*1	1995	1	BOCC3 - Red / Surrey Status - Common breeding resident
Thames Valley Environmental Records Centre	Slow-worm	<i>Anguis fragilis</i>	*1	2009	22	W&CA Sch.5, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Grass snake	<i>Natrix natrix</i>	*1	2011	2	W&CA Sch5, NERC Act, BAP Priority National, BAP Priority London, Local Spp.of Cons. Conc.
	Common Goldeneye	<i>Bucephala clangula</i>	*1	2013	1	Local Spp. of Cons. Conc.
	Common kingfisher	<i>Alcedo atthis</i>	*1	2005	2	Birds Dir.Anx .1, W&CA Sch.1, Local Spp. of Cons. Conc.
	Red kite	<i>Milvus milvus</i>	*1	2013	1	Amber Status; Birds Directive Annex 1; Convention on Migratory Species; EC CITES Annex A; W&CA Sch 1
	Peregrine falcon	<i>Falco peregrinus</i>	*1	2004	1	Birds Dir. Anx. 1, W&CA Sch.1 Part 1, BAP Priority London, Local Spp. of Cons. Conc.

\*1 = Records from within the 2km search area of the airport boundaries; \*2 = Records accurate to within a 1km grid square; \*3 = Records accurate to within a 2km grid square; \*4 = Records accurate to within a 10km grid square; Unk = Locations of records not known either due to confidentiality requirements.

## Heathrow Airport Extended Northern Runway

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
Greenspace information for Greater London – Heathrow east	Shady horsetail	<i>Equisetum pratense</i>	*1	2012	1	Nationally Scarce
	Scots pine	<i>Pinus sylvestris</i>	*1	1996	1	Nationally Scarce
	Arrowhead	<i>Sagittaria sagittifolia</i>	*1	2004	23	Local Species (Spp.) of Conservation Concern (Cons. Conc.)
	Greater pond-sedge	<i>Carex riparia</i>	*1	2004	21	Local Spp. of Cons. Conc.
	Galingale	<i>Cyperus longus</i>	*1	2004	2	Nationally Scarce, RedList in GB Lower risk/near threatened (LR(NT)
	Bluebell	<i>Hyacinthoides non-scripta</i>	*1	2012	2	W&CA Sch.8, Local Spp. of Cons. Conc.
	Daffodil	<i>Narcissus pseudonarcissus</i>	*1	2012	2	Local Spp. of Cons. Conc.
	Crested hair-grass	<i>Koeleria macrantha</i>	*1	2004	1	Local Spp. of Cons. Conc.
	Annual beard-grass	<i>Polypogon monspeliensis</i>	*1	2012	1	Nationally Scarce
	Fine-leaved water-dropwort	<i>Oenanthe aquatica</i>	*4	2005	8	Spp. Cons. Conc.
	Tubular water-dropwort	<i>Oenanthe fistulosa</i>	*4	2005	7	NERC Act, RedList_GB-Vulnerable BAP Priority National,
	River water-dropwort	<i>Oenanthe fluviatilis</i>	*1	2004	14	BAP Priority London, Local Spp. of Cons. Conc.
	Greater water-parsnip	<i>Sium latifolium</i>	*4	2005	13	NERC Act, BAP Priority National, Nationally Scarce, RedList_GB-Endangered
	Cornflower	<i>Centaurea cyanus</i>	*1	2012	4	NERC Act, BAP Priority National
	Viper's-bugloss	<i>Echium vulgare</i>	*2, *4	1996	2	Local Spp. of Cons. Conc.
	Smith's pepperwort	<i>Lepidium heterophyllum</i>	*2, *4	1996	2	Local Spp. of Cons. Conc.
	Box	<i>Buxus sempervirens</i>	*2	1997	1	Nationally Rare, RedList_GB-Data deficient
	Changing forget-me-not	<i>Myosotis discolor</i>	*1	2012	2	Local Spp. of Cons. Conc.
	Good-king-henry	<i>Chenopodium bonus-henricus</i>	*1	2004	4	RedList_GB-Vulnerable
	Slender tare	<i>Vicia parviflora</i>	*1	2012	2	Nationally Scarce, RedList_GB-Vulnerable
	Fringed water-lily	<i>Nymphoides peltata</i>	*1	2012	1	Local Spp. of Cons. Conc., Nationally Scarce
	Meadow crane's-bill	<i>Geranium pratense</i>	*2, *3, *4	1998	13	Local Spp. of Cons. Conc.
	Marsh dock	<i>Rumex palustris</i>	*1	1996	1	Local Spp. of Cons. Conc.

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Water-violet	<i>Hottonia palustris</i>	*1	2010	1	Local Spp. of Cons. Conc.
	River water-crowfoot	<i>Ranunculus fluitans</i>	*1	2004	11	Local Spp. of Cons. Conc.
	Common meadow-rue	<i>Thalictrum flavum</i>	*1	1999	1	Local Spp. of Cons. Conc.
	Water avens	<i>Geum rivale</i>	*1	2012	3	Local Spp. of Cons. Conc.
	Trailing tormentil	<i>Potentilla anglica</i>	*1	1997	2	Local Spp. of Cons. Conc.
	Great burnet	<i>Sanguisorba officinalis</i>	*1	2004	1	Local Spp. of Cons. Conc.
	Lime	<i>Tilia platyphyllos</i> x <i>cordata</i> = <i>T. x europaea</i>	*1	2004	3	Nationally Scarce
	Pansy	<i>Viola tricolor</i> subsp. <i>tricolor</i>	*2	1997	1	RedList_GB-Lr(NT)
	Mistletoe	<i>Viscum album</i>	*1	1994	1	BAP Priority London, Local Spp. of Cons. Conc.
	Wasp spider	<i>Argiope bruennichi</i>	*1	2006	1	Local Spp. of Cons. Conc.
	Long-winged cone-head	<i>Conocephalus fuscus</i>	*1	2004	1	Local Spp. of Cons. Conc.
	Stag beetle	<i>Lucanus cervus</i>	*1	2012	4	Hab&Spp Dir Anx 2, NERC Act, BAP Priority National, BAP Priority London, Nationally Notable B, Local Spp of Cons Conc
	Brown argus	<i>Aricia agestis</i>	*1	2010	1	Local Spp. of Cons. Conc.
	Silver-washed fritillary	<i>Argynnis paphia</i>	*2	1997	1	Local Spp. of Cons. Conc.
	Marbled white	<i>Melanargia galathea</i>	*1	2012	1	Local Spp. of Cons. Conc.
	Marbled white	<i>Melanargia galathea</i> subsp. <i>serena</i>	*1	2010	2	Local Spp. of Cons. Conc.
	Grayling	<i>Hipparchia semele</i>	*1	2010	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc, RedList_GB-Vulnerable
	Small heath	<i>Coenonympha pamphilus</i>	*1	2012	18	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., RedList_GB-Lr(NT)
	Goat moth	<i>Cossus cossus</i>	*1	2012	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Bulrush veneer	<i>Calamotropha paludella</i>	*1	2012	3	Nationally Notable B
	Giant water-veneer	<i>Schoenobius gigantella</i>	*1	2012	2	Nationally Notable B
	Dingy footman	<i>Eilema griseola</i>	*1	2012	2	Local Spp. of Cons. Conc.

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Buff footman	<i>Eilema depressa</i>	*1	2007	1	Local Spp. of Cons. Conc.
	White ermine	<i>Spilosoma lubricipeda</i>	*1	2000	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Buff ermine	<i>Spilosoma luteum</i>	*1	2012	3	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Cinnabar	<i>Tyria jacobaeae</i>	*1	2012	9	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Small square-spot	<i>Diarsia rubi</i>	*1	2012	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Southern wainscot	<i>Mythimna straminea</i>	*1	2012	2	Local Spp. of Cons. Conc.
	Deep-brown dart	<i>Aporophyla lutulenta</i>	*1	2012	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Beaded chestnut	<i>Agrochola lychnidis</i>	*1	2006	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Sallow	<i>Xanthia icteritia</i>	*1	2006	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Knot grass	<i>Acronicta rumicis</i>	*1	2012	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Rosy rustic	<i>Hydraecia micacea</i>	*1	2012	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Brown-veined wainscot	<i>Archanara dissoluta</i>	*1	2007	1	Local Spp. of Cons. Conc.
	Large wainscot	<i>Rhizedra lutosa</i>	*1	2012	3	NERC Act, BAP Priority National
	Silky wainscot	<i>Chilodes maritimus</i>	*1	2007	1	Local Spp. of Cons. Conc.
	Mother shipton	<i>Callistege mi</i>	*1	2012	1	Local Spp. of Cons. Conc.
	Common frog	<i>Rana temporaria</i>	*1	2010	5	Local Spp. of Cons. Conc.
	Grass snake	<i>Natrix natrix</i>	*1	2012	3	W&CA Sch5, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Little gull	<i>Hydrocoloeus minutus</i>	*1	1998	17	Birds Directive (Birds Dir.) Anx.1, W&CA Sch.1
	Yellow-legged gull	<i>Larus cachinnans</i>	*1	2004	3	BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Mute swan	<i>Cygnus olor</i>	*1	2010	77	Local Spp. of Cons. Conc.

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	Ruddy shelduck	<i>Tadorna ferruginea</i>	*1	1996	2	Birds Dir. Anx.1
	Common shelduck	<i>Tadorna tadorna</i>	*1	2000	145	Local Spp. of Cons. Conc.
	Eurasian wigeon	<i>Anas penelope</i>	*1	2007	16	Local Spp. of Cons. Conc.
	Gadwall	<i>Anas strepera</i>	*1	2012	98	Local Spp. of Cons. Conc.
	Eurasian teal	<i>Anas crecca</i>	*1	2012	66	Local Spp. of Cons. Conc.
	Northern pintail	<i>Anas acuta</i>	*1	1998	4	Local Spp. of Cons. Conc.
	Garganey	<i>Anas querquedula</i>	*1	1999	10	W&CA Sch.1, Local Spp. of Cons. Conc.
	Garganey	<i>Anas querquedula</i>	Unk	1999	4	W&CA Sch.1, Local Spp. of Cons. Conc.
	Northern shoveler	<i>Anas clypeata</i>	*1	2007	31	Local Spp of Cons Conc
	Ferruginous duck	<i>Aythya nyroca</i>	*1	2002	17	Birds Dir. Anx.1
	Common scoter	<i>Melanitta nigra</i>	*1	2001	1	W&CA Sch.1, NERC Act, BOCC3-Red, BAP Priority National
	Velvet scoter	<i>Melanitta fusca</i>	*1	1994	1	W&CA Sch.1
	Smew	<i>Mergellus albellus</i>	*1	2007	37	Birds Dir. Anx.1
	Grey partridge	<i>Perdix perdix</i>	*1	2007	5	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Great bittern	<i>Botaurus stellaris</i>	*1	2003	2	Birds Dir. Anx.1, W&CA Sch1, NERC Act, BOCC3-Red, BAP Priority National, BAP Priority London
	Little egret	<i>Egretta garzetta</i>	*1	2008	9	Birds Dir. Anx.1, W&CA Sch.1
	Grey heron	<i>Ardea cinerea</i>	*1	2012	36	Local Spp of Cons Conc
	White stork	<i>Ciconia ciconia</i>	*1	2003	1	Birds Dir. Anx.1
	Eurasian spoonbill	<i>Platalea leucorodia</i>	*1	1997	1	Birds Dir. Anx.1, W&CA Sch.1
	European honey-buzzard	<i>Pernis apivorus</i>	*1	2000	1	Birds Dir. Anx.1, W&CA Sch.1
	European honey-buzzard	<i>Pernis apivorus</i>	Unk	2006	2	Birds Dir. Anx.1, W&CA Sch.1
	Red kite	<i>Milvus milvus</i>	Unk	1997	1	Birds Dir. Anx.1, W&CA Sch.1
	Hen harrier	<i>Circus cyaneus</i>	*2	2010	1	Birds Dir. Anx.1, NERC Act, W&CA Sch.1, BOCC3-Red
	Common kestrel	<i>Falco tinnunculus</i>	*1	2012	28	Bern Convention Appendix 2, Local Spp. of Cons. Conc.

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Merlin	<i>Falco columbarius</i>	*1	2007	1	Birds Dir. Anx.1, W&CA Sch.1
	Water rail	<i>Rallus aquaticus</i>	*1	2007	3	Local Spp. of Cons. Conc.
	Little plover	<i>Charadrius dubius</i>	Unk	2005	141	W&CA Sch1, Local Spp. of Cons. Conc.
	Ringed plover	<i>Charadrius hiaticula</i>	*1	2005	208	Local Spp. of Cons. Conc.
	Kentish plover	<i>Charadrius alexandrinus</i>	*1	1999	1	W&CA Sch.1
	Pied avocet	<i>Recurvirostra avosetta</i>	Unk	1996	11	W&CA Sch.1, Birds Dir. Anx.1, Local Spp. of Cons. Conc.
	European golden plover	<i>Pluvialis apricaria</i>	*1	2012	20	Birds Dir. Anx.1
	Northern lapwing	<i>Vanellus vanellus</i>	*1	2012	77	NERC Act , BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., Bird-Red
	Dunlin	<i>Calidris alpina</i>	*1	2005	151	Local Spp. of Cons. Conc., Bird-Red
	Ruff	<i>Philomachus pugnax</i>	*1	1998	61	Birds Dir. Anx. 1, W&CA Sch.1, BOCC3-Red
	Common snipe	<i>Gallinago gallinago</i>	*1	2012	38	Local Spp. of Cons. Conc.
	Black-tailed godwit	<i>Limosa limosa</i>	*1	1995	4	W&CA Sch.1, BOCC3-Red
	Bar-tailed godwit	<i>Limosa lapponica</i>	*1	1997	2	Birds Dir. Anx. 1
	Eurasian curlew	<i>Numenius arquata</i>	*1	1996	1	NERC Act, BAP Priority National
	Common redshank	<i>Tringa totanus</i>	*1	1995	73	Local Spp. of Cons. Conc.
	Common greenshank	<i>Tringa nebularia</i>	*1	2000	86	W&CA Sch.1
	Green sandpiper	<i>Tringa ochropus</i>	*1	2008	244	Birds Dir. Anx.1, W&CA Sch. 1 Part 1
	Wood sandpiper	<i>Tringa glareola</i>	*1	2002	54	Birds Dir. Anx.1, W&CA Sch.1
	Mediterranean gull	<i>Larus melanocephalus</i>	*1	2005	1	Birds Dir. Anx.1, W&CA Sch.1
	Lesser black-backed gull	<i>Larus fuscus</i>	*1	2012	6	Local Spp. of Cons. Conc.
	Herring gull	<i>Larus argentatus</i>	*1	2012	6	BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Common tern	<i>Sterna hirundo</i>	*1	2012	23	Birds Directive Annex I, Bern Convention Appendix 2, Local Spp. of Cons. Conc.
	Arctic tern	<i>Sterna paradisaea</i>	*1	2003	1	Birds Dir. Anx. 1
	Stock pigeon	<i>Columba oenas</i>	*1	2012	12	Local Spp. of Cons. Conc.

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	European turtle dove	<i>Streptopelia turtur</i>	*1	2001	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Common cuckoo	<i>Cuculus canorus</i>	*1	1997	5	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Short-eared owl	<i>Asio flammeus</i>	*1	2005	1	Birds Dir. Anx. 1, Local Spp. of Cons. Conc.
	Barn owl	<i>Tyto alba</i>	Unk	2007	1	W&CA Sch.1, Local Spp. of Cons. Conc.
	Long-eared owl	<i>Asio otus</i>	Unk	1999	1	Local Spp. of Cons. Conc.
	Common swift	<i>Apus apus</i>	*1	2012	12	Local Spp of Cons Conc
	Common kingfisher	<i>Alcedo atthis</i>	*1	2012	56	Birds Dir.Anx .1, W&CA Sch.1, Local Spp. of Cons. Conc.
	Lesser spotted woodpecker	<i>Dendrocopos minor</i>	*1	1998	2	BAP Priority London, Local Spp. of Cons. Conc., BOCC3 - Red
	Sky lark	<i>Alauda arvensis</i>	*1	2012	39	NERC Act, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Marsh warbler	<i>Acrocephalus palustris</i>	Unk	1995	2	W&CA Sch.1, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Corn bunting	<i>Emberiza calandra</i>	Unk	1994	4	BOCC3 - red, BAP Priority London, Local Spp. of Cons. Conc.
	Dartford warbler	<i>Sylvia undata</i>	Unk	1997	2	Birds Dir. Anx. 1, W&CA Sch.1, Local Spp. of Cons. Conc.
	Sand martin	<i>Riparia riparia</i>	*1	2004	2	BAP Priority London, Local Spp. of Cons. Conc.
	Barn swallow	<i>Hirundo rustica</i>	*1	2012	12	Local Spp. of Cons. Conc.
	House martin	<i>Delichon urbicum</i>	*1	2007	11	Local Spp. of Cons. Conc.
	Tree pipit	<i>Anthus trivialis</i>	*1	1996	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Meadow pipit	<i>Anthus pratensis</i>	*1	2012	34	Local Spp. of Cons. Conc.
	Yellow wagtail	<i>Motacilla flava</i>	*1	2006	35	BAP Priority London, Local Spp. of Cons. Conc. , BOCC3-Red
	Blue-headed wagtail	<i>Motacilla flava subsp. flava</i>	*1	1999	6	BAP Priority London, Local Spp. of Cons. Conc. , BOCC3-Red
	Grey wagtail	<i>Motacilla cinerea</i>	*1	2012	61	Local Spp. of Cons. Conc.
	Hedge accentor	<i>Prunella modularis</i>	*1	2012	19	BAP Priority London, Local Spp. of Cons. Conc.



	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Black redstart	<i>Phoenicurus ochruros</i>	*1	1999	3	W&CA Sch.1, BAP Priority London
	Black redstart	<i>Phoenicurus ochruros</i>	Unk	2005	5	Local Spp. of Cons. Conc.
	Stonechat	<i>Saxicola torquata</i>	*1	2007	22	W&CA Sch.1, BOCC3-Red
	Fieldfare	<i>Turdus pilaris</i>	*1	2012	11	BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Song thrush	<i>Turdus philomelos</i>	*1	2012	14	W&CA Sch.1, BOCC3-Red
	Redwing	<i>Turdus iliacus</i>	*1	2012	8	Local Spp. of Cons. Conc.
	Mistle thrush	<i>Turdus viscivorus</i>	*1	2012	8	Local Spp. of Cons. Conc.
	Willow warbler	<i>Phylloscopus trochilus</i>	*1	2012	12	Local Spp. of Cons. Conc.
	Goldcrest	<i>Regulus regulus</i>	*1	2012	9	W&CA Sch.1 Part 1, Local Spp. of Cons. Conc.
	Firecrest	<i>Regulus ignicapilla</i>	*2	2010	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Spotted flycatcher	<i>Muscicapa striata</i>	*1	2003	1	Local Spp. of Cons. Conc.
	Rook	<i>Corvus frugilegus</i>	*1	2000	1	BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Common starling	<i>Sturnus vulgaris</i>	*1	2012	6	NERC Act, BAP Priority National, BAP Priority London, Local Spp of Cons Conc, BOCC3-Red
	House sparrow	<i>Passer domesticus</i>	*1	2012	17	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Eurasian tree sparrow	<i>Passer montanus</i>	*1	2000	143	W&CA Sch.1
	Brambling	<i>Fringilla montifringilla</i>	*1	1998	3	BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Common linnet	<i>Carduelis cannabina</i>	*1	2012	30	BOCC3-Red
	Twite	<i>Carduelis flavirostris</i>	*1	1999	1	NERC Act, BAP Priority National, BOCC3-Red
	Lesser redpoll	<i>Carduelis cabaret</i>	*1	2012	2	W&CA Sch.1
	Common rosefinch	<i>Carpodacus erythrinus</i>	*1	1995	1	BAP Priority London
	Common bullfinch	<i>Pyrrhula pyrrhula</i>	*1	2012	13	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Reed bunting	<i>Emberiza schoeniclus</i>	*1	2012	39	Cons. Regs. Sch.2, Hab.&Spp. Dir. Anx. 4, W&CA Sch.5, BAP Priority London, Local Spp. of Cons. Conc.

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	Serotine	<i>Eptesicus serotinus</i>	*1	2007	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	West european hedgehog	<i>Erinaceus europaeus</i>	*1	1999	1	Local Spp. of Cons. Conc.
	Eurasian common shrew	<i>Sorex araneus</i>	*1	2012	1	Local Spp. of Cons. Conc.
	Eurasian pygmy shrew	<i>Sorex minutus</i>	*1	2012	1	Protection of Badgers Act, Local Spp. of Cons. Conc.
	Eurasian badger	<i>Meles meles</i>	Unk	2004	2	Protection of Badgers Act, Local Spp. of Cons. Conc.
	Unidentified bat	<i>Myotis</i>	*1	2008	8	Cons. Regs. Sch.2, W&CA Sch.5, BAP Priority London
	Daubenton's bat	<i>Myotis daubentonii</i>	*1	2008	14	Cons Regs. Sch.2, Hab&Spp Dir. Anx .4, W&CA Sch.5, NERC Act, BAP Priority London, Local Spp. of Cons. Conc.
	Noctule bat	<i>Nyctalus noctula</i>	*1	2008	3	Cons Regs. Sch.2, Hab&Spp Dir. Anx .4, W&CA Sch.5, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Pipistrelle bat species	<i>Pipistrellus</i>	*1	2012	17	Cons Regs. Sch.2, W&CA Sch.5, BAP Priority London
	Common pipistrelle	<i>Pipistrellus pipistrellus</i>	*1	2012	5	Cons Regs. Sch.2, Hab&Spp Dir. Anx .4, W&CA Sch.5, NERC Act, BAP Priority London, Local Spp. of Cons. Conc.
	Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	*1	2008	37	Cons Regs. Sch.2, Hab&Spp Dir Anx 4, W&CA Sch.5, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Nathusius's pipistrelle	<i>Pipistrellus nathusii</i>	*2	2006	1	Cons Regs. Sch.2, Hab&Spp Dir. Anx .4, W&CA Sch.5, BAP Priority London, Local Spp. of Cons. Conc.
	European otter	<i>Lutra lutra</i>	*1	2008	3	Cons Regs. Sch.2, Hab&Spp Dir. Anx. 2 & Anx 4, W&CA Sch5, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	European water vole	<i>Arvicola amphibius</i>	*1	2002	10	W&CA Sch.5, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Brown hare	<i>Lepus europaeus</i>	*1	2004	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
Green space	Common stonewort	<i>Chara vulgaris</i>	*1	1995	1	Local Spp. of Cons. Conc.
	Shady horsetail	<i>Equisetum pratense</i>	*1	2012	1	Nationally Scarce

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	Scots pine	<i>Pinus sylvestris</i>	*1	2012	4	Nationally Scarce
	Arrowhead	<i>Sagittaria sagittifolia</i>	*1	2009	2	Local Spp. of Cons. Conc.
	Greater pond-sedge	<i>Carex riparia</i>	*1	2012	28	Local Spp. of Cons. Conc.
	Gallingale	<i>Cyperus longus</i>	*1	2009	1	Nationally Scarce, RedList_GB-Lr(NT)
	Water-soldier	<i>Stratiotes aloides</i>	*1	1999	2	Nationally Scarce, RedList_GB-Lr(NT)
	Heath rush	<i>Juncus squarrosus</i>	*1	1996	1	Local Spp. of Cons. Conc.
	Chives	<i>Allium schoenoprasum</i>	*1	2009	1	Nationally Scarce
	Wild asparagus	<i>Asparagus prostratus</i>	*1	2009	1	NERC Act, BAP Priority National, Nationally Rare, RedList_GB-VU
	Bluebell	<i>Hyacinthoides non-scripta</i>	*1	2012	11	W&CA Sch.8, Local Spp. of Cons. Conc.
	Daffodil	<i>Narcissus pseudonarcissus</i>	*1	2012	5	Local Spp. of Cons. Conc.
	Whorl-grass	<i>Catabrosa aquatica</i>	*1	1995	2	Local Spp. of Cons. Conc.
	Lesser marshwort	<i>Apium inundatum</i>	*1	1995	1	Local Spp. of Cons. Conc.
	Lesser marshwort	<i>Apium inundatum</i>	*1	1996	1	NERC Act, BAP Priority National
	Cornflower	<i>Centaurea cyanus</i>	*1	2009	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., Rare, RedList_GB-Vulnerable (VU)
	Chamomile	<i>Chamaemelum nobile</i>	*1	2009	1	RedList_GB-VU
	Corn marigold	<i>Glebionis segetum</i>	*1	2012	1	W&C Sch.8, NERC Act, BAP Priority National, Local Spp. of Cons. Conc., Nationally Rare, RedList_GB-Endangered (EN)
	Least lettuce	<i>Lactuca saligna</i>	*1	1999	1	W&C Sch.8, NERC Act, BAP Priority National, Local Spp. of Cons. Conc. Nationally Rare, RedList_GB-Critical(CR)
	Green hound's-tongue	<i>Cynoglossum germanicum</i>	*1	2009	2	Local Spp. of Cons. Conc.
	Viper's-bugloss	<i>Echium vulgare</i>	*1	2012	1	Nationally Scarce
	Wild cabbage	<i>Brassica oleracea</i>	*1	2009	2	Nationally Scarce
	Dittander	<i>Lepidium latifolium</i>	*1	1996	2	Nationally Scarce

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	Dittander	<i>Lepidium latifolium</i>	*3	2006	12	Local Spp. of Cons. Conc.
	Greater chickweed	<i>Stellaria neglecta</i>	*1	2004	1	Local Spp. of Cons. Conc.
	Imperforate St John's wort	<i>Hypericum maculatum</i>	*1	2009	1	Local Spp of Cons Conc
	Devil's-bit scabious	<i>Succisa pratensis</i>	*1	2004	1	Nationally Scarce
	Sea-buckthorn	<i>Hippophae rhamnoides</i>	*1	2009	1	Local Spp. of Cons. Conc.
	Bell heather	<i>Erica cinerea</i>	*1	1996	1	Local Spp. of Cons. Conc., RedList_GB-Lr(NT)
	Petty whin	<i>Genista anglica</i>	*1	1996	1	Local Spp. of Cons. Conc.
	Dyer's Greenweed	<i>Genista tinctoria</i>	*1	1996	1	Local Spp. of Cons. Conc., Nationally Scarce, RedList_GB-VU
	Yellow vetchling	<i>Lathyrus aphaca</i>	*1	2012	2	Local Spp. of Cons. Conc., Nationally Scarce
	Toothed medick	<i>Medicago polymorpha</i>	*1	2009	1	Local Spp. of Cons. Conc.
	Dwarf gorse	<i>Ulex minor</i>	*1	1996	1	Local Spp. of Cons. Conc.
	Spring vetch	<i>Vicia lutea</i>	*1	2008	2	Nationally Scarce, RedList_GB-VU
	Slender tare	<i>Vicia parviflora</i>	*1	2012	1	Local Spp. of Cons. Conc.
	Meadow crane's-bill	<i>Geranium pratense</i>	*1	2010	2	Nationally Scarce, RedList_GB-Data Deficient (DD)
	Round-leaved mint	<i>Mentha suaveolens</i>	*1	2009	1	Local Spp. of Cons. Conc.
	Wild clary	<i>Salvia verbenaca</i>	*1	2012	4	W&C Sch.8, NERC Act, BAP Priority National, Nationally Rare, RedList_GB-EN
	Water germander	<i>Teucrium scordium</i>	*1	1996	1	Nationally Scarce
	Perennial flax	<i>Linum perenne</i>	*1	2009	1	Local Spp. of Cons. Conc., Nationally Scarce
	Fringed water-lily	<i>Nymphoides peltata</i>	*1	2009	1	Local Spp. of Cons. Conc.
	Water violet	<i>Hottonia palustris</i>	*1	2012	3	Local Spp. of Cons. Conc.
	Brookweed	<i>Samolus valerandi</i>	*1	2009	1	Local Spp. of Cons. Conc.
	River water-crowfoot	<i>Ranunculus fluitans</i>	*1	2009	1	Local Spp. of Cons. Conc.
	Ivy-leaved crowfoot	<i>Ranunculus hederaceus</i>	*1	2012	3	Local Spp. of Cons. Conc.
	Water avens	<i>Geum rivale</i>	*1	2010	2	Local Spp. of Cons. Conc.

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Great burnet	<i>Sanguisorba officinalis</i>	*1	2009	1	Nationally Rare, RedList_GB-CR
	Service-tree	<i>Sorbus domestica</i>	*1	2012	1	BAP Priority London, Local Spp. of Cons. Conc.
	Black poplar	<i>Populus nigra subsp.betulifolia</i>	*1	2009	1	Nationally Scarce
	Lime	<i>Tilia platyphyllos x cordata</i> = <i>T. x europaea</i>	*1	2012	9	RedList_GB-Lr(NT)
	Wild pansy	<i>Viola tricolor</i>	*1	2009	2	BAP Priority London, Local Spp. of Cons. Conc.
	Mistletoe	<i>Viscum album</i>	*1	2012	6	Local Spp of Cons Conc
	Argiope bruennichi	<i>Argiope bruennichi</i>	*1	2012	3	Hab&spp Dir. Anx .2, W&CA Sch.5, NERC Act, BAP Priority National, Local Spp. of Cons. Conc.
	White-clawed freshwater crayfish	<i>Austropotamobius pallipes</i>	*1	2010	1	Local Spp. of Cons. Conc.
	Red-eyed damselfly	<i>Erythromma najas</i>	*1	2012	1	Local Spp. of Cons. Conc.
	Emerald damselfly	<i>Lestes sponsa</i>	*1	2012	3	Local Spp. of Cons. Conc.
	Hairy dragonfly	<i>Brachytron pratense</i>	*1	2012	3	Local Spp. of Cons. Conc.
	Ruddy darter	<i>Sympetrum sanguineum</i>	*1	2001	1	Nationally Notable B
	Panagaeus bipustulatus	<i>Panagaeus bipustulatus</i>	*1	2000	1	Hab&spp Dir. Anx.2, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., Nationally Notable B
	Stag beetle	<i>Lucanus cervus</i>	*1	2009	38	Local Spp. of Cons. Conc., Nationally Notable B
	Phytoecia cylindrica	<i>Phytoecia cylindrica</i>	*1	1998	1	Local Spp. of Cons. Conc.
	Green hairstreak	<i>Callophrys rubi</i>	*1	2013	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.nc, RedList_GB-EN
	White-letter hairstreak	<i>Satyrion w-album</i>	*1	2010	2	Local Spp. of Cons. Conc.
	Brown argus	<i>Aricia agestis</i>	*1	2012	21	Local Spp. of Cons. Conc.
	Silver-washed fritillary	<i>Argynnis paphia</i>	*1	2010	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., RedList_GB-Lr(NT)
	Small heath	<i>Coenonympha pamphilus</i>	*1	2013	45	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Ghost moth	<i>Hepialus humuli subsp. Humuli</i>	*1	2000	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Goat moth	<i>Cossus cossus</i>	*1	2013	3	Nationally Notable B
	Wainscot neb	<i>Monochroa palustrella</i>	*1	2009	2	Nationally Notable B
	Bulrush veneer	<i>Calamotropha paludella</i>	*1	2009	2	Nationally Notable B
	Giant water-veneer	<i>Schoenobius gigantella</i>	*1	2008	1	Nationally Notable B
	Pied grey	<i>Eudonia delunella</i>	*1	2008	1	Nationally Notable B
	Sulphur pearl	<i>Sitochroa palealis</i>	*1	2008	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Lackey	<i>Malacosoma neustria</i>	*1	2008	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Oak hook-tip	<i>Watsonalla binaria</i>	*1	1999	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Blood-vein	<i>Timandra comae</i>	*1	2009	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Shaded broad-bar	<i>Scotopteryx chenopodiata</i>	*1	2008	2	Local Spp. of Cons. Conc.
	Horse chestnut	<i>Pachycnemia hippocastanaria</i>	*1	2012	13	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Dusky thorn	<i>Ennomos fuscantaria</i>	*1	1999	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Brindled beauty	<i>Lycia hirtaria</i>	*1	2012	4	Local Spp. of Cons. Conc.
	Great oak beauty	<i>Hypomecis roboraria</i>	*1	2009	1	Local Spp. of Cons. Conc.
	Dingy footman	<i>Eilema griseola</i>	*1	2009	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	White ermine	<i>Spilosoma lubricipeda</i>	*1	2012	5	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Buff ermine	<i>Spilosoma luteum</i>	*1	2009	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Cinnabar	<i>Tyria jacobaeae</i>	*1	2012	15	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.

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	Small square-spot	<i>Diarsia rubi</i>	*1	2008	2	Local Spp. of Cons. Conc.
	Lead-coloured drab	<i>Orthosia populeti</i>	*1	2009	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Powdered quaker	<i>Orthosia gracilis</i>	*1	2013	3	Local Spp. of Cons. Conc.
	Obscure wainscot	<i>Mythimna obsoleta</i>	*1	2012	3	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Shoulder-striped wainscot	<i>Mythimna comma</i>	*1	2011	2	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Deep-brown dart	<i>Aporophyla lutulenta</i>	*1	2002	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Green-brindled crescent	<i>Allophyes oxyacanthae</i>	*1	1997	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Beaded chestnut	<i>Agrochola lychnidis</i>	*1	1997	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Centre-barred sawfly	<i>Atethmia centrigo</i>	*1	1999	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Sawfly	<i>Xanthia icteritia</i>	*1	2000	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Dusky-lemon sawfly	<i>Xanthia gilvago</i>	*1	1999	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Knot grass	<i>Acronicta rumicis</i>	*1	2012	3	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Mouse moth	<i>Amphipyra tragopoginis</i>	*1	1999	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Rosy rustic	<i>Hydraecia micacea</i>	*1	1999	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Brown-veined wainscot	<i>Archanara dissoluta</i>	*1	2008	1	Local Spp. of Cons. Conc.
	Large wainscot	<i>Rhizedra lutosa</i>	*1	1999	1	NERC Act, BAP Priority National
	Rustic	<i>Hoplodrina blanda</i>	*1	2011	4	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.

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	Cream-bordered green pea	<i>Earias clorana</i>	*1	2008	1	Local Spp. of Cons. Conc.
	Mother shipton	<i>Callistege mi</i>	*1	2012	5	Local Spp. of Cons. Conc.
	Beautiful snout	<i>Hypena crassalis</i>	*1	1999	1	Local Spp. of Cons. Conc.
	Pinion-streaked snout	<i>Schrankia costaestrigalis</i>	*1	2008	1	Local Spp. of Cons. Conc.
	Mylengyna triangulifera	<i>Melangyna triangulifer</i>	*1	1998	1	Nationally Notable, Local Spp. of Cons. Conc.
	Drab wood-soldierfly	<i>Solva marginata</i>	*1	1999	1	Nationally Notable, Local Spp. of Cons. Conc.
	Black colonel	<i>Odontomyia tigrina</i>	*1	2011	2	Nationally Notable, Local Spp. of Cons. Conc.
	Banded general	<i>Stratiomys potamida</i>	*1	2000	1	Nationally Notable
	Brachyopa insensillis	<i>Brachyopa insensilis</i>	*1	1999	1	Nationally Notable, Local Spp. of Cons. Conc.
	Brachypalpoides lentus	<i>Brachypalpoides lentus</i>	*1	1998	1	Local Spp. of Cons. Conc.
	Cheilosia barbata	<i>Cheilosia barbata</i>	*1	1998		Nationally Notable
	Cheilosia velutina	<i>Cheilosia velutina</i>	*1	1998	1	Nationally Notable
	Didea fasciata	<i>Didea fasciata</i>	*1	1998	1	Nationally Notable, Local Spp. of Cons. Conc.
	Epistrophe diaphana	<i>Epistrophe diaphana</i>	*1	1998	2	Nationally Notable
	Neoascia interrupta	<i>Neoascia interrupta</i>	*1	1998	1	Nationally Notable
	Parhelophilus versicolor	<i>Parhelophilus versicolor</i>	*1	2001	1	Local Spp. of Cons. Conc.
	Pipizella virens	<i>Pipizella virens</i>	*1	1998	1	Nationally Notable
	Volucella inais	<i>Volucella inanis</i>	*1	2001	2	Nationally Notable, Local Spp. of Cons. Conc.
	Volucella zonaria	<i>Volucella zonaria</i>	*1	2012	4	Nationally Notable, Local Spp. of Cons. Conc.
	Ornate tailed digger wasp	<i>Cerceris rybyensis</i>	*1	2000	1	Local Spp. of Cons. Conc.
	Lasioglossum (Evylaeus) malachurum	<i>Lasioglossum (Evylaeus) malachurum</i>	*1	2000	3	Nationally Notable B, Local Spp. of Cons. Conc.
	Bullhead	<i>Cottus gobio</i>	*1	1999	1	Habs&Spp Dir. Anx.2, Local Spp. of Cons. Conc.
	Common frog	<i>Rana temporaria</i>	*1	2011	5	Local Spp. of Cons. Conc.
	Common toad	<i>Bufo bufo</i>	*1	2007	9	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.



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	Slow-worm	<i>Anguis fragilis</i>	*1	2012	2	W&CA Sch.5, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Grass snake	<i>Natrix natrix</i>	*1	2013	38	W&CA Sch5, NERC Act, BAP Priority National, BAP Priority London, Local Spp.of Cons. Conc.
	Mute swan	<i>Cygnus olor</i>	*1	2012	50	Local Spp. of Cons. Conc.
	Whooper swan	<i>Cygnus cygnus</i>	*1	1988	1	Birds Dir. Anx.1, W&CA Sch.1
	Barnacle goose	<i>Branta leucopsis</i>	*1	2013	1	Local Spp. of Cons. Conc.
	Common shelduck	<i>Tadorna tadorna</i>	*1	2003	5	Local Spp. of Cons. Conc.
	Eurasian wigeon	<i>Anas penelope</i>	*1	2011	23	Local Spp. of Cons. Conc.
	Gadwall	<i>Anas strepera</i>	*1	2013	44	Local Spp. of Cons. Conc.
	Eurasian teal	<i>Anas crecca</i>	*1	2013	25	Local Spp. of Cons. Conc.
	Northern pintail	<i>Anas acuta</i>	*1	2011	2	Local Spp. of Cons. Conc.
	Garganey	<i>Anas querquedula</i>	*1	2008	1	W&CA Sch.1, Local Spp. of Cons. Conc.
	Northern shoveler	<i>Anas clypeata</i>	*1	2012	38	Local Spp. of Cons. Conc.
	Common goldeneye	<i>Bucephala clangula</i>	*1	2012	8	Local Spp. of Cons. Conc.
	Smew	<i>Mergellus albellus</i>	*1	2012	99	Local Spp. of Cons. Conc.
	Black-necked grebe	<i>Podiceps nigricollis</i>	*1	2000	2	W&CA Sch.1, Local Spp. of Cons. Conc.
	Great bittern	<i>Botaurus stellaris</i>	*1	2013	52	Birds Dir. Anx.1, W&CA Sch.1, NERC Act, BAP Priority National, BAP Priority London, BOCC3-Red.
	Little egret	<i>Egretta garzetta</i>	*1	2013	5	Birds Dir. Anx.1, W&CA Sch.1
	Grey heron	<i>Ardea cinerea</i>	*1	2013	44	Local Spp. of Cons. Conc.
	Red kite	<i>Milvus milvus</i>	*1	2002	1	Birds Dir. Anx.1, W&CA Sch.1
	Red kite	<i>Milvus milvus</i>	Unk	2011	2	W&CA Sch.1, Local Spp. of Cons. Conc.
	Common kestrel	<i>Falco tinnunculus</i>	*1	2013	45	Bern Convention Apx.2, Local Spp. of Cons. Conc.
	Merlin	<i>Falco columbarius</i>	*1	2008	1	Birds Dir. Anx.1, W&CA Sch.1 Part 1
	Water rail	<i>Rallus aquaticus</i>	*1	2013	38	Birds Dir Anx. 1

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	Common crane	<i>Grus grus</i>	*1	2007	1	W&CA Sch. 1 Part 1, Local Spp. of Cons. Conc.
	Northern lapwing	<i>Vanellus vanellus</i>	*1	2012	14	NERC Act , BAP Priority National, BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Common snipe	<i>Gallinago gallinago</i>	*1	2012	23	Local Spp. of Cons. Conc.
	Eurasian woodcock	<i>Scolopax rusticola</i>	*1	2012	12	Local Spp. of Cons. Conc.
	Whimbrel	<i>Numenius phaeopus</i>	*1	2001	3	W&CA Sch. 1 Part 1, BOCC3-Red
	Green sandpiper	<i>Tringa ochropus</i>	*1	2012	13	Birds Dir. Anx.1, W&CA Sch. 1 Part 1
	Mediterranean gull	<i>Larus melanocephalus</i>	*1	2011	2	Birds Dir. Anx.1, W&CA Sch. 1 Part 1
	Lesser black-backed gull	<i>Larus fuscus</i>	*1	2012	17	Local Spp. of Cons. Conc.
	Herring gull	<i>Larus argentatus</i>	*1	2012	12	BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Common tern	<i>Sterna hirundo</i>	*1	2013	48	Bern Convention Appendix 2, Birds Directive Annex I, local spp of cons. Conc.
	Stock Pigeon	<i>Columba oenas</i>	*1	2012	8	Local Spp. of Cons. Conc.
	Common cuckoo	<i>Cuculus canorus</i>	*1	2012	9	NERC Act , BAP Priority National, BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Tawny owl	<i>Strix aluco</i>	*1	2011	12	Local Spp. of Cons. Conc.
	Short-eared owl	<i>Asio flammeus</i>	*1	2012	2	Birds Dir. Anx. 1, Local Spp. of Cons. Conc.
	Common swift	<i>Apus apus</i>	*1	2013	18	Local Spp. of Cons. Conc.
	Common kingfisher	<i>Alcedo atthis</i>	*1	2013	72	Birds Dir. Anx.1, W&CA Sch. 1 Part 1, Local Spp. of Cons. Con.
	Lesser spotted woodpecker	<i>Dendrocopos minor</i>	*1	2003	17	BOCC3- Red, BAP Priority London, Local Spp. of Cons. Conc.
	Sky lark	<i>Alauda arvensis</i>	*1	2012	30	NERC Act , BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Sandmartin	<i>Riparia riparia</i>	*1	2008	3	BAP Priority London, Local Spp. of Cons. Conc.
	Barn swallow	<i>Hirundo rustica</i>	*1	2013	16	Local Spp. of Cons. Conc.
	House martin	<i>Delichon urbicum</i>	*1	2011	8	Local Spp. of Cons. Conc.
	Meadow pipit	<i>Anthus pratensis</i>	*1	2012	8	Local Spp. of Cons. Conc.

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	Yellow wagtail	<i>Motacilla flava</i>	*1	2012	4	Bird- Red, BAP Priority London, Local Spp of Cons Conc
	Grey wagtail	<i>Motacilla cinerea</i>	*1	2013	23	Local Spp. of Cons. Conc.
	Hedge accentor	<i>Prunella modularis</i>	*1	2012	34	BAP Priority London, Local Spp. of Cons. Conc.
	Common nightingale	<i>Luscinia megarhynchos</i>	*1	2012	1	Local Spp. of Cons. Conc.
	Stonechat	<i>Saxicola torquata</i>	*1	2008	3	Local Spp. of Cons. Conc.
	Ring Ouzel	<i>Turdus torquatus</i>	*1	2005	3	NERC Act , BAP Priority National, BOCC3-Red
	Fieldfare	<i>Turdus pilaris</i>	*1	2012	10	W&CA Sch.1 Part 1, BOCC3-Red
	Song thrush	<i>Turdus philomelos</i>	*1	2013	39	BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Redwing	<i>Turdus iliacus</i>	*1	2013	23	W&CA Sch.1 Part 1, BOCC3-Red
	Mistle thrush	<i>Turdus viscivorus</i>	*1	2012	7	Local Spp. of Cons. Conc.
	Common grasshopper warbler	<i>Locustella naevia</i>	*1	2008	2	NERC Act , BAP Priority National, BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Willow warbler	<i>Phylloscopus trochilus</i>	*1	2013	45	Local Spp. of Cons. Conc.
	Goldcrest	<i>Regulus regulus</i>	*1	2013	28	Local Spp. of Cons. Conc.
	Firecrest	<i>Regulus ignicapilla</i>	*1	2011	33	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Spotted flycatcher	<i>Muscicapa striata</i>	*1	2008	6	NERC Act , BAP Priority National, BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Common starling	<i>Sturnus vulgaris</i>	*1	2012	25	BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	House sparrow	<i>Passer domesticus</i>	*1	2013	88	NERC Act , BAP Priority National, BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Brambling	<i>Fringilla montifringilla</i>	*1	2008	2	W&CA Sch.1 Part 1
	Common linnet	<i>Carduelis cannabina</i>	*1	2012	24	BOCC3-Red, BAP Priority London, Local Spp. of Cons. Conc.
	Lesser redpoll	<i>Carduelis cabaret</i>	*1	2012	8	NERC Act , BAP Priority National, BOCC3-Red
	Common redpoll	<i>Carduelis flammea</i>	*1	2013	13	BAP Priority London, Local Spp. of Cons. Conc.
	Common bullfinch	<i>Pyrrhula pyrrhula</i>	*1	2012	15	BAP Priority London

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	Reed bunting	<i>Emberiza schoeniclus</i>	*1	2013	32	NERC Act , BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Serotine	<i>Eptesicus serotinus</i>	*1	2005	2	Cons Regs. Sch.2, Hab. & spp. Dir. Anx. 4, W&CA Sch.5 Sec. 9.4b, W&CA Sch.5 Sec.9.4c, BAP Priority London, Local Spp. of Cons. Conc.
	West European hedgehog	<i>Erinaceus europaeus</i>	*1	2007	7	NERC Act , BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Eurasian common shrew	<i>Sorex araneus</i>	*1	2012	3	Local Spp. of Cons. Conc.
	Bats	<i>Vespertilionidae</i>	*1	2008	4	Cons. Regs. Sch.2, W&CA Sch.5 Sec. 9.4b, W&CA Sch.5, BAP Priority London
	Daubenton's bat	<i>Myotis daubentonii</i>	*1	2011	5	Cons. Regs. Sch.2, Hab. & spp. Dir. Anx. 4, W&CA Sch.5 Sec. 9.4b, BAP Priority Local Spp. of Cons. Conc.
	Lesser noctule	<i>Nyctalus leisleri</i>	*1	2008	3	Cons Regs 2010 Sch2, Hab&spp Dir Anx 4, W&CA Sch5 Sec 9.4b, W&CA Sch5, BAP Priority London, Local Spp of Cons Conc
	Noctule bat	<i>Nyctalus noctula</i>	*1	2008	11	Cons. Regs. Sch2, Hab. & spp. Dir. Anx. 4, W&CA Sch.5, NERC Act , BAP Priority National, BAP Priority London, Local Spp of Cons. Conc.
	Pipistrelle bat species	<i>Pipistrellus</i>	*1	2008	18	Cons. Regs. Sch.2, W&CA Sch.5, W&CA Sch.5, BAP Priority London
	Nathusius's pipistrelle	<i>Pipistrellus nathusii</i>	*1	2013	24	Cons. Regs. Sch. 2, Hab. & spp. Dir. Anx. 4, W&CA Sch.5, BAP Priority London, Local Spp. of Cons. Conc.
	Common pipistrelle	<i>Pipistrellus pipistrellus</i>	*1	2013	15	Cons. Regs. Sch.2, Hab&spp Dir Anx 4, W&CA Sch5, NERC Act, BAP Priority London, Local Spp. of Cons. Conc.
	Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	*1	2013	32	Cons. Regs. Sch. 2, Hab&spp Dir Anx 4, NERC Act , BAP Priority National, W&CA Sch5, BAP Priority Local Spp. of Cons. Conc.
	Brown long-eared bat	<i>Plecotus auritus</i>	*1	2003	4	W&CA Sch.5, Cons Regs.Sch. 2, Hab. & spp. Dir. Anx. 4, NERC Act , BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	European otter	<i>Lutra lutra</i>	*1	2010	1	Cons. Regs. Sch.2, Hab. & spp. Dir. Anx. 2, Hab. & spp. Dir. Anx. 4, NERC Act , BAP Priority National, W&CA Sch5, BAP Priority London, Local Spp. of Cons. Conc.

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	European water vole	<i>Arvicola amphibius</i>	*1	2012	16	W&CA Sch.5, NERC Act , BAP Priority National, , BAP Priority London, Local Spp. of Cons. Conc.
	Scots pine	<i>Pinus sylvestris</i>	*4	1997	2	Nationally Scarce
	Frogbit	<i>Hydrocharis morsus-ranae</i>	*3	2005	7	Redlist_GB-VU
	Heath rush	<i>Juncus squarrosus</i>	*4	1997	4	Local Spp. of Cons. Conc.
	Bluebell	<i>Hyacinthoides non-scripta</i> <i>x hispanica</i> = <i>h. x massartiana</i>	*2 *4	2005	1	W&CA Sch.8, Local Spp. of Cons. Conc.
	Cut-grass	<i>Leersia oryzoides</i>	*4	2002	1	W&CA Sch.8, BAP NERC Act , BAP Priority National, Priority London, Local Spp of Cons Conc, Nationally Rare, RedList_GB-EN
	Opposite-leaved pondweed	<i>Groenlandia densa</i>	*2 *4	1996	7	Redlist_GB-VU
	Hairlike pondweed	<i>Potamogeton trichoides</i>	*4	1998	1	Local Spp of Cons Conc
	Fine-leaved water-dropwort	<i>Oenanthe aquatica</i>	*4	2005	8	Local Spp of Cons Conc
	Tubular water-dropwort	<i>Oenanthe fistulosa</i>	*3	2005	8	NERC Act , BAP Priority National, RedList_GB-VU
	Greater water-parsnip	<i>Sium latifolium</i>	*4	2005	15	NERC Act, BAP Priority National, Nationally Scarce, RedList_GB-Endangered
	Smith's pepperwort	<i>Lepidium heterophyllum</i>	*4	1998	1	Local Spp. of Cons. Conc.
	Narrow-leaved pepperwort	<i>Lepidium ruderales</i>	*2 *3 *4	1996	6	Local Spp. of Cons. Conc.
	Upright chickweed	<i>Moenchia erecta</i>	*4	1996	3	Local Spp. of Cons. Conc.
	Bell heather	<i>Erica cinerea</i>	*4	1997	4	Local Spp. of Cons. Conc., Redlist_GB-Lr(NT)
	Petty whin	<i>Genista anglica</i>	*4	1997	5	Local Spp. of Cons. Conc.
	Yellow vetchling	<i>Lathyrus aphaca</i>	*4	2003	7	Local Spp. of Cons. Conc., Nationally Rare, Redlist_GB-Lr(NT)
	Hairy vetchling	<i>Lathyrus hirsutus</i>	*4	1996	1	Local Spp. of Cons. Conc., Nationally Rare
	Dwarf gorse	<i>Ulex minor</i>	*4	1997	4	Local Spp. of Cons. Conc.
	Yellow-vetch	<i>Vicia lutea</i>	*4	1997	3	Nationally Scarce, Redlist_GB-Lr(NT)

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Meadow crane's-bill	<i>Geranium pratense</i>	*2 *3 *4	1996	18	Local Spp. of Cons. Conc.
	Whorled Water-milfoil	<i>Myriophyllum verticillatum</i>	*3 *4	1996	4	Local Spp. of Cons. Conc., Redlist_GB-VU
	Wild Clary	<i>Salvia verbenca</i>	*4	2003	1	Local Spp. of Cons. Conc.
	Fringed water-lily	<i>Nymphoides peltata</i>	*4	1996	2	Local Spp. of Cons. Conc., Nationally Scarce
	Heath milkwort	<i>Polygala serpyllifolia</i>	*4	1995	4	Local Spp. of Cons. Conc.
	Water-violet	<i>Hottonia palustris</i>	*4	1996	2	Local Spp. of Cons. Conc.
	Mousetail	<i>Myosurus minimus</i>	*4	2004	3	Redlist_GB-VU
	River water-crowfoot	<i>Ranunculus fluitans</i>	*2 *3 *4	2006	6	Local Spp. of Cons. Conc.
	Common meadow-rue	<i>Thalictrum flavum</i>	*4	2005	10	Local Spp. of Cons. Conc.
	Hybrid cinquefoil	<i>Potentilla anglica x reptans = P. x mixta</i>	*4	2006	2	Local Spp. of Cons. Conc.
	Hoary cinquefoil	<i>Potentilla argentea</i>	*4	2003	5	Local Spp. of Cons. Conc., RedList_GB-Lr(NT)
	Small-flowered sweet-briar	<i>Rosa micrantha</i>	*4	2003	2	Local Spp. of Cons. Conc.
	Black poplar	<i>Populus nigra subsp. Betulifolia</i>	*4	2003	3	BAP Priority London
	Meadow saxifridge	<i>Saxifraga granulata</i>	*4	2004	4	Local Spp. of Cons. Conc.
	Heath dog-violet	<i>Viola canina subsp. Canina</i>	*2 *4	1995	5	Local Spp. of Cons. Conc., RedList_GB-Lr(NT)
	Green hairstreak	<i>Callophrys rubi</i>	*2	2011	1	Local Spp. of Cons. Conc.
	White-letter hairstreak	<i>Satyrrium w-album</i>	*2	2010	8	NERC Act , BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., RedList_GB-EN
	Brown argus	<i>Aricia agestis</i>	*2	2013	103	Local Spp. of Cons. Conc.
	Silver-washed fritillary	<i>Argynnis paphia</i>	*2	2010	2	Local Spp. of Cons. Conc.
	Wall	<i>Lasiommata megera</i>	*2	2000	2	NERC Act , BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., RedList_GB-Lr(NT)
	Marbled white	<i>Melanargia galathea</i>	*2	2013	10	Local Spp. of Cons. Conc.
	Small heath	<i>Coenonympha pamphilus</i>	*2	2013	435	NERC Act , BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., RedList_GB-Lr(NT)

	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Astata boops	<i>Astata boops</i>	*2	1997	1	Local Spp. of Cons. Conc.
	Ornate tailed digger wasp	<i>Cerceris rybyensis</i>	*2	1997	1	Local Spp. of Cons. Conc.
	Hylaeus (Abrupta) cornutus	<i>Hylaeus (Abrupta) cornutus</i>	*2	1997	1	Nationally Notable A
	Andrena (Plastandrena) tibialis	<i>Andrena (Plastandrena) tibialis</i>	*2	1997	1	Local Spp. of Cons. Conc.
	Yellow legged mining bee	<i>Andrena (Zonandrena) flavipes</i>	*2	1997	1	Local Spp. of Cons. Conc.
	Panurgus banksianus	<i>Panurgus banksianus</i>	*2	1997	1	Local Spp. of Cons. Conc.
	Lasioglossum (Evylaeus) malachurum	<i>Lasioglossum (Evylaeus) malachurum</i>	*2	1997	1	Nationally Notable B, Local Spp. of Cons. Conc.
	Nomada fucata	<i>Nomada fucata</i>	*2	1997	1	Nationally Notable A
	Hen harrier	<i>Circus cyaneus</i>	*2	2010	1	Birds Dir. Anx. 1, W&CA Sch.1 Part 1NERC Act , , BOCC3-Red
	Eurasian marsh harrier	<i>Circus aeruginosus</i>	Unk	2012	1	W&CA Sch.1 Part 1, Local Spp. of Cons. Conc.
	Eurasian hobby	<i>Falco subbuteo</i>	Unk	2013	40	W&CA Sch.1 Part 1, Local Spp. of Cons. Conc.
	Peregrine falcon	<i>Falco peregrinus</i>	Unk	2012	3	Birds Dir. Anx. 1, W&CA Sch.1 Part 1, BAP Priority London, Local Spp. of Cons. Conc.
	Common snipe	<i>Gallinago gallinago</i>	Unk	2013	4	Local Spp. of Cons. Conc.
	Little plover	<i>Charadrius dubius</i>	Unk	2011	10	W&CA Sch.1 Part 1, Local Spp. of Cons. Conc.
	European turtle dove	<i>Streptopelia turtur</i>	Unk	1999	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc., BOCC3-Red
	Black redstart	<i>Phoenicurus ochruros</i>	Unk	2008	5	W&CA Sch.1 Part 1, BAP Priority London
	Cetti's warbler	<i>Vettia vetti</i>	Unk	2012	12	W&CA Sch.1 Part 1, Local Spp. of Cons. Conc.
	Corn bunting	<i>Emberiza calandra</i>	Unk	1994	4	BOCC3 - Red, BAP Priority London, Local Spp. of Cons. Conc.
	Eurasian badger	<i>Meles meles</i>	Unk	2012	2	Protection of Badgers Act, Local Spp. of Cons. Conc.
Surrey Biodiversity	Water Vole	<i>Arvicola amphibius</i>	*1	1998	1	W&CA Sch. 5
	House martin	<i>Delichon urbicum</i>	*1	1995	3	Bern Convention Appendix 2
	Common Kestrel	<i>Falco tinnunculus</i>	*1	2009	2	Bern Convention Appendix 2
	Ringed plover	<i>Charadrius hiaticula</i>	*1	1995	2	Bern Convention Appendix 2

Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
Stag beetle	<i>Lucanus cervus</i>	*1	1998	4	W&CA Sch. 5, Bern Convention Appendix 3, Habitats Directive Annex 2 - non-priority species
Grass snake	<i>Natrix natrix</i>	*1	1995	1	W&CA Sch5, NERC Act, BAP Priority National, BAP Priority London, Local Spp.of Cons. Conc.
Common tern	<i>Sterna hirundo</i>	*1	1995	2	Bern Convention Appendix 2, Birds Directive Annex I, local spp. of cons. Conc.
Green woodpecker	<i>Picus viridis</i>	*1	1995	2	Bern Convention Appendix 2
Greenfinch	<i>Carduelis chloris</i>	*1	1995	1	Bern Convention Appendix 2
Linnet	<i>Carduelis cannabina</i>	*1	1995	2	Bern Convention Appendix 2
Hedgehog	<i>Erinaceus europaeus</i>	*1	1997	1	Bern Convention Appendix 3
Swallow	<i>Hirundo rustica</i>	*1	1995	2	Bern Convention Appendix 2
Robin	<i>Erithacus rubecula</i>	*1	1995	1	Bern Convention Appendix 2
Blue tit	<i>Cyanistes caeruleus</i>	*1	1995	1	Bern Convention Appendix 2
Great tit	<i>Parus major</i>	*1	1995	1	Bern Convention Appendix 2
Goldfinch	<i>Carduelis carduelis</i>	*1	1995	1	Bern Convention Appendix 2
Smooth newt	<i>Lissotriton vulgaris</i>	*1	2003	1	W&CA Sch 5, Bern Convention Appendix 3
Mallard	<i>Anas platyrhynchos</i>	*1	1995	4	BOCC3 - Amber / Surrey status - Abundant breeding resident
Tubular water-dropwort	<i>Oenanthe fistulosa</i>	*1	1995	1	IUCN - Vulnerable / Surrey status - Rather Rare
Tasteless water-pepper	<i>Persicaria mitis</i>	*1	1995	1	IUCN - Vulnerable / Surrey status - Rare
Wild pansy	<i>Viola tricolor</i>	*1	1995	1	IUCN- Near Threatened / Surrey status - Frequent on chalk
Lapwing	<i>Vanellus vanellus</i>	*1	1995	2	BOCC3 - Red / Surrey status - Moderately common breeding resident
A water beetle	<i>Ilybius fenestratus</i>	*1	2010	1	Nationally Notable B / Surrey status - Local
A scavenger water beetle	<i>Anacaena bipustulata</i>	*1	1996	1	Nationally Notable B / Surrey status - Local
A scavenger water beetle	<i>Helochares lividus</i>	*1	1996	1	Nationally Notable B / Surrey status - Local
A caddisfly	<i>Ceraclea senilis</i>	*1	1996	1	Nationally Notable B
Small heath	<i>Coenonympha pamphilus</i>	*1	2010	1	NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.



	Species		Record accuracy	Date of most recent record	Total number of occurrences	Designation
	Swift	<i>Apus apus</i>	*1	1996	1	BOCC3 - Amber / Surrey status - Common summer visitor
	Skylark	<i>Alauda arvensis</i>	*1	1996	2	BOCC3 - Red / Surrey status - Common, but reduced breeding resident
	Pochard	<i>Aythya ferina</i>	*1	1995	2	BOCC3 - Amber / Surrey Status - Moderately common winter visitor
	Black-headed gull	<i>Larus ridibundus</i>	*1	1995	2	BOCC3 - Amber / Surrey Status - Mcommon winter visitor, has bread
	House sparrow	<i>Passer domesticus</i>	*1	1995	1	BOCC3 - Red / Surrey Status - Locally common breeding resident
	Tufted duck	<i>Aythya fuligula</i>	*1	1995	1	BOCC3 - Amber / Surrey Status - Common summer visitor, breeding annually
	Starling	<i>Sturnus vulgaris</i>	*1	1995	1	BOCC3 - Red / Surrey Status - Common breeding resident
Thames Valley Environmental	Slow-worm	<i>Anguis fragilis</i>	*1	2009	22	W&CA Sch 5; NERC 2006; Sussex Protected Species Register; UK BAP priority species
	Grass snake	<i>Natrix natrix</i>	*1	2011	2	W&CA Sch5, NERC Act, BAP Priority National, BAP Priority London, Local Spp. of Cons. Conc.
	Common goldeneye	<i>Bucephala clangula</i>	*1	2013	1	Local Spp. of Cons. Conc.
	Common tern	<i>Sterna hirundo</i>	*1	2004	1	Bern Convention Appendix 2, Birds Directive Annex I, local spp of cons. Conc.
	Common kingfisher	<i>Alcedo atthis</i>	*1	2005	2	Bern Convention Appendix 2; Amber Status; Birds Directive Annex 1; W&CA Sch 1
	Red kite	<i>Milvus milvus</i>	*1	2013	1	W&CA Sch.1, Local Spp. of Cons. Conc.
	Peregrine falcon	<i>Falco peregrinus</i>	*1	2004	1	Birds Dir. Anx. 1, W&CA Sch.1 Part 1, BAP Priority London, Local Spp. of Cons. Conc.

\*1 = Records from within the 2km search area of the airport boundaries; \*2 = Records accurate to within a 1km grid square; \*3 = Records accurate to within a 2km grid square; \*4 = Records accurate to within a 10km grid square; Unk = Locations of records not known either due to confidentiality requirements.