



YOUR LONDON AIRPORT
Gatwick

Our northern runway: making best use of Gatwick

Preliminary Environmental Information Report
Appendix 9.6.1: Ecological Desk Study
September 2021

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1 Introduction

1.1 Ecological Desk Study

1.1.1 The document forms Appendix 9.6.1 of the Preliminary Environmental Information Report (PEIR) prepared on behalf of Gatwick Airport Limited (GAL). The PEIR presents the preliminary findings of the Environmental Impact Assessment (EIA) process for the proposal to make best use of Gatwick Airport's existing runways (referred to within this report as 'the Project'). The Project proposes alterations to the existing northern runway which, together with the lifting of the current restrictions on its use, would enable dual runway operations. The Project includes the development of a range of infrastructure and facilities which, with the alterations to the northern runway, would enable the airport passenger and aircraft operations to increase. Further details regarding the components of the Project can be found in Chapter 5: Project Description.

1.1.2 This document provides the ecology desk study for Chapter 9: Ecology and Nature Conservation for the Project.

1.1.3 The site location is shown on Figure 1.1.1.

1.1.4 This desk study forms part of the Preliminary Ecological Appraisal, as per guidance provided by the Chartered Institute of Ecology and Environmental Management (CIEEM) (2017).

1.1.5 The objectives of the desk study were to:

- locate statutory and non-statutory wildlife sites within 5 km of the site, and European designated sites within 20 km;
- locate bat species within 10 km of the site;
- locate records of otters within 10 km of the site; and
- locate records of all other protected and otherwise notable species within 2 km of the site.

1.1.6 This report outlines the methods used (Section 2), presents the results obtained (Section 3), and sets out the conclusions reached (Section 4).

2 Methodology

2.1 Search Area

2.1.1 A search area of 2 km (from the site boundary at the time of search) was used to gather records of most protected and

notable species. A wider search area of 5 km was used to gather records of statutory and non-statutory designated sites, extended to 20 km for European designated sites and 10 km to gather records of bats and otters. This accounts for species that cover a wide geographical area and is in accordance with the Bat Conservation Trust guidelines (2016).

2.2 Data Request

2.2.1 A data request for this information was made to the following organisations:

- Sussex Biodiversity Record Centre;
- East Surrey Badger Protection Society;
- West Surrey Badger Group;
- Badger Trust-Sussex;
- Surrey Biodiversity Information Centre;
- R. Bicker, Gatwick Airport Biodiversity Consultant.

2.2.2 The legal and conservation status of the species for which records were received was determined using the Spreadsheet of Conservation Designations for UK Taxa (Joint Nature Conservation Committee (JNCC), 2018).

2.2.3 In addition to these requests, the 'MAGIC' website was consulted for information on any statutory designated sites within 5 km of the site and European designated sites within 20 km. A search was made for details of Local Nature Reserves (LNR), Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar Sites, National Nature Reserves (NNRs) and Sites of Special Scientific Interest (SSSIs). The Natural England and JNCC websites were also consulted for additional details on these sites.

2.2.4 Data regarding the location and presence of protected or notable species detailed within Gatwick's Annual Biodiversity Review 2018 (Bicker *et al.*, 2019), has also been incorporated into this desk study.

3 Results

3.1 Desk Study

3.1.1 A summary of the data received from the relevant record centres concerning wildlife sites and protected and notable species records is summarised in Table 3.1.1 below.

Table 3.1.1: Table of Consultees

Consultee	Response
Sussex Biodiversity Record Centre	Provided species records within 10 km (bats and otter) and 2 km of the site. Provided records of designated sites within 5 km of the study area.
Surrey Biodiversity Information Centre	Awaiting data.
East Surrey Badger Protection Society	Advised that they did not hold records in this area.
West Surrey Badger Group	Advised that they did not hold records in this area.
Badger Trust-Sussex	Advised that they did not hold records in this area.

3.2 Designated Sites

3.2.1 There are 17 statutory designated sites located within the search area. These are listed in Table 3.2.1 below and shown on Figure 3.2.1. The designated sites consist of two Special Conservation Areas (SAC), one SPA, four SSSIs and seven LNRs and three County Parks (CP). None of the sites fall within the Project site boundary.

3.2.2 In addition, following consultation with Natural England, the following European sites designated for their bat populations beyond 20 km from the Project site boundary have been identified for consideration:

- Ebernoe Common SAC located 29 km to the south west of the site; and
- The Mens SAC located 25 km to the south west of the site.

3.2.3 Further, following consultation with Natural England with respect to the potential impacts of changes in air quality from vehicle emissions on major roads, the following sites have also been included:

- Thames Basin Heaths SPA located 24 km to the north west of the site; and
- Thursley, Ash, Pirbright and Chobham SAC located 33.8 km to the north west of the site.

- 3.2.4 Further details regarding these sites can be found within Table 3.2.2 and Table 3.2.3.
- 3.2.5 A number of areas of ancient woodland are present within the search area and four are present within the Project site boundary.
- 3.2.6 There are 21 non-statutory designated sites within the 5 km search area. These are listed in Table 3.2.1 below and shown on Figure 3.2.2. They consist of 20 Local Wildlife Sites (LWSs) and one Designated Road Verge (DRV). LWSs are designated following criteria and procedures set out by county councils. Of these, one site falls within the Project site boundary, Horleyland Wood LWS.
- 3.2.7 These totals do not include the records shown in italics in Table 3.2.1, as these records are not up to date, as they were provided by Surrey Biodiversity Information Centre in 2016.

Table 3.2.1: Statutory and Non-statutory Designated Sites within 5 km of the Site, and European Designated Sites within 20 km of the Project Site

Statutory and Non-statutory Designated Sites within 5 km of the Project Site				
Site name	Type	Approximate area (ha)	Interest Features	Distance from site (metres)
Statutory Sites				
Willoughby Fields	LNR	20	Includes two streams, two large unimproved meadows and extensive hedgerows. The meadows and hedgerows are particularly important habitats being uncommon within Crawley Borough.	786
Grattons Park	LNR	7.2	The main habitats found here are broadleaved woodland, a stream, ponds and meadows.	1,246
Edolph's Copse	LNR	27.64	Edolph's Copse is a woodland, located in a well wooded part of the Surrey Weald just to the north of Gatwick. Its irregular boundaries are defined by local roads to the west and by grazed fields to the east and south. The wood is well connected to other neighboring habitats via mature hedgerows and a stream.	1,545
Glover's Wood	SSSI	74.49	Glover's Wood is a substantial area of woodland which lies on neutral to slightly acid clays across the incised valley of the Welland Gill. The site consists almost entirely of semi-natural broadleaved woodland, part of which is considered to be primary. The primary woodland areas, situated mainly on the sides of a calcareous gill, support a very rich ground flora.	1,623
Waterlea Meadow	LNR	3.26	Includes flood meadow, wetland, hedgerow and woodland habitats and associated wildlife including good populations of reptiles and amphibians, a variety of wetland plants and many species of birds.	3,488
Worth Way	CP	NP	Since the closure of the railway in the 1960s, much of it has been colonised by trees such as ash and silver birch. Where chalk was used in the construction of the railway, plants such as Guelder Rose, Common Spotted Orchid, Twayblade and wild strawberry can be found. Worth Way offers a green corridor for wildlife, connecting different habitats together. Birds of note include Chiffchaff, Nuthatch and kingfisher. Butterflies include Brimstone, Speckled Wood, Meadow Brown, Ringlet, Skipper and, in June, the White Admiral. Bats, Adders, Grass Snakes and Common Lizards are also found here.	3,727
Tilgate Forest	LNR	6.9	Conifer and broad-leaved woodland plantation within a golf course also supporting heathland, acid grassland and small ponds. The site supports a variety of birds, all four common reptile species and attracts many dragonflies and damselflies.	4,190
House Copse	SSSI	12.48	A small isolated woodland, which is shown on the 1st Edition 1" Ordnance Survey Map (1816) to have much the same shape and extent as at present. There is much to suggest that it is an 'ancient' woodland with continuity of woodland cover since at least the Middle Ages. This type of woodland cover is rare, being a close association of small-leaved lime and hornbeam, previously managed as coppice, under oak standards, and is almost unknown elsewhere in Southern England.	4,345
Hedgecourt	SSSI	33.56	Hedgecourt is the most important wetland site remaining in south-east Surrey. Situated in the upper Eden Brook Valley on alluvial soils overlying Tunbridge Wells sandstones, the site incorporates a range of habitats including woodland, grassland and fen-margined open water. Hedgecourt lake itself is an ancient mill pond resulting from the damming of the river. These habitats support a wide variety of animal life including several locally distributed beetles (Coleoptera) and a large breeding-bird fauna.	4,460
Buchan Hill Ponds	SSSI	19.49	These three ponds are the best example in West Sussex of Wealden hammer ponds on acid Tunbridge Wells sands. A nationally uncommon woodland type occupies the wetlands around the ponds and the site supports a rich dragonfly fauna which includes two particularly notable species.	4,928
Tilgate Park	CP	100.28	Broad-leaved woodland, with trees such as oak and birch, is important for birds like woodpeckers (all three British species occur in the park), wildflowers, fungi and invertebrates. Heathland is a priority habitat in the Park. This is open land with shrubs such as wild heather and gorse. It supports specialised, and often rare, invertebrates, reptiles and birds. Lakes and ponds provide breeding sites for frogs, toads, newts, dragonflies and damselflies. Stanford Brook which flows along the eastern edge of the golf course harbours wild brown trout, bullheads and lampreys.	4,899

Statutory and Non-statutory Designated Sites within 5 km of the Project Site				
Site name	Type	Approximate area (ha)	Interest Features	Distance from site (metres)
Target Hill Park	LNR	8.98	A mosaic of habitats including wetlands, woodlands, meadow and scrub areas. A pond and several ephemeral scrape ponds have been excavated, creating a range of wetland habitats.	4,916
Buchan	CP	72.31	Buchan Country Park has won the Green Flag Award, which recognises the best green spaces in the UK, every year since 2010. The site contains dragonflies, Nightjar, Great Crested Grebe, Adder and Grass Snake.	4,923
Broadfield Park	LNR	10.47	The reserve includes lakes and ponds, wet woodland, mixed woodland, meadow and parkland. As the grounds of a former country house, the park also contains some formal features and specimen trees.	5,058
Mole Gap to Reigate Escarpment	SAC	892.3	This site hosts the priority habitat type "orchid rich sites". This large but fragmented site on the North Downs escarpment supports a wide range of calcareous grassland types on steep slopes, including <i>Festuca ovina</i> – <i>Avenula pratensis</i> , <i>Bromus erectus</i> , <i>Brachypodium pinnatum</i> , <i>Brachypodium pinnatum</i> – <i>Bromus erectus</i> and <i>Avenula pubescens</i> grasslands. It exhibits a wide range of structural conditions ranging from short turf through to scrub margins, and is particularly important for rare vascular plants, including orchids. It is also significant in exhibiting transitions to scarce scrub, woodland and dry heath types, notably Stable xerothermophilous formations with <i>Buxus sempervirens</i> on rock slopes, yew <i>Taxus baccata</i> woods, and chalk heath. The yew <i>Taxus baccata</i> woodland has been formed both by invasion of chalk grassland and from development within beech <i>Fagus sylvatica</i> woodland following destruction of the beech overstorey. Yew occurs here in extensive stands, with, in places, an understorey of box <i>Buxus sempervirens</i> at one of its few native locations.	9,223
Ashdown Forest	SAC	2,715.88	Ashdown Forest contains one of the largest single continuous blocks of lowland heath in south-east England, with both European dry heaths and, in a larger proportion, wet heath. The <i>Erica tetralix</i> – <i>Sphagnum compactum</i> wet heath element provides suitable conditions for several species of bog-mosses <i>Sphagnum spp.</i> , bog asphodel <i>Narthecium ossifragum</i> , deergrass <i>Trichophorum cespitosum</i> , common cotton-grass <i>Eriophorum angustifolium</i> , marsh gentian <i>Gentiana pneumonanthe</i> and marsh clubmoss <i>Lycopodiella inundata</i> . The site supports important assemblages of beetles, dragonflies, damselflies and butterflies, including the nationally rare silver-studded blue <i>Plebejus argus</i> , and birds of European importance, such as European nightjar <i>Caprimulgus europaeus</i> , Dartford warbler <i>Sylvia undata</i> and Eurasian hobby <i>Falco subbuteo</i> . The dry heath in Ashdown Forest is an extensive example of the south-eastern <i>Calluna vulgaris</i> – <i>Ulex minor</i> community. This vegetation type is dominated by heather <i>Calluna vulgaris</i> , bell heather <i>Erica cinerea</i> and dwarf gorse <i>Ulex minor</i> , with transitions to other habitats. It supports important lichen assemblages, including species such as <i>Pycnothelia papillaria</i> . This site supports the most inland remaining population of hairy greenweed <i>Genista pilosa</i> in Britain. The woodlands are also varied, with <i>Birch Betula sp.</i> typically establishing first over heath, followed by Oak <i>Quercus robur</i> , Willow <i>Salix sp.</i> and Pine <i>Pinus sp.</i> in places, eventually forming dense and shaded areas with sparse ground flora. Breeding birds of heath, scrub and woodland are associated with the varied mosaic of their respective habitats, distributed over the higher slopes and valleys of the High Weald. Together with the nearby Wealden Heaths SPA and Thames Basin Heath SPA, Ashdown Forest forms part of a complex of heathlands in southern England that support breeding bird populations of European importance. Breeding birds of particular note include Dartford Warbler <i>Sylvia undata</i> and Nightjar <i>Caprimulgus europaeus</i> .	11,960
	SPA	3,207.08		11,960
Non-Statutory Sites within 5 km of the Project site				
Horleyland Wood	LWS	9.52	Hazel-Oak-Birch wood, carpeted with Bluebells in spring and Bracken in the summer. Crab tree grove and stands of Oaks.	Within Project boundary
Rowley Wood	LWS	22.44	Woodland of note for ship-timber beetle <i>Lymexylon navale</i>	691

Statutory and Non-statutory Designated Sites within 5 km of the Project Site				
Site name	Type	Approximate area (ha)	Interest Features	Distance from site (metres)
Willoughby Fields	LWS	25.74	Unimproved grasslands with a network of hedgerows, areas of scrub and small copses. The area is a breeding ground for bird, butterfly and damselfly	752
Grattons Pond	LWS	2.62	Can be found within Grattons Park LNR.	1,224
Wood near Lower Prestwood Farm	LWS	14.22	This woodland site is of importance for its mosses and liverworts.	1,298
A264 Copthorne	DRV	1	Not provided.	1,643
Ifield Brook Wood and Meadows	LWS	22.88	Neutral grassland, semi-natural woodland and stream. Species include birds-foot-trefoil, yellow rattle, bluebells, butterflies, damselflies and kingfishers.	1,671
Copthorne Common	LWS	33.28	Not provided.	2,157
Ewhurst Wood	LWS	4.97	Ancient woodland indicator species such as bluebell, wood anemone and goldilocks buttercup can be found here, together with rowan, wild cherry and the uncommon wild service-tree. Dead and decaying wood attracts great spotted-wood peckers and tree creepers. There are old wood banks, ditches and abundant deadwood.	2,170
Orltons Copse	LWS	55.75	An area comprising ancient woodland, streams and hay meadow. It is of importance for several bird species including nightingale, goldcrest and tawny owl.	2,216
Worth Way	LWS	5.17	Since the closure of the railway in the 1960s, much of it has been colonised by trees such as ash and silver birch. Where chalk was used in the construction of the railway, plants such as Guelder Rose, Common Spotted Orchid, Twayblade and wild strawberry can be found. Worth Way offers a green corridor for wildlife, connecting different habitats together. Birds of note include Chiffchaff, Nuthatch and kingfisher.	3,726
Ifield Pond and surroundings	LWS	19.58	Ponds and wetland area, support rich bird community and breeding site. Frogs, toads and newts breed in the pond and during summer, damselflies and the larger dragonflies can be also be found. Greater reed-mace and the true bulrush, together with yellow iris and water mint are seen at the water's edge	3,130
The Hawth	LWS	11.89	Ancient woodland dominated by birch, with a dense shrub layer and rich ground flora.	3,432
Worth Meadows	LWS	5.48	Meadow part of Worth Park, the recently restored 1880s Victorian garden.	3,517
Hyde Hill	LWS	22.75	An area of ancient woodland, stream and neutral grassland. Species include small leaved lime, wild service tree and a wide variety of birds.	3,533
Oaken Wood, Stony Plats & High Lines	LWS	88.38	Most of this site consists of Oak and Hazel woodland with Birch frequent in places. Small-leaved Lime occurs occasionally throughout. Alder occurs alongside the numerous streams. There are a number of large open clearings and several stagnant ponds. The wood supports good numbers of plants, mosses, liverworts, birds and butterflies.	3,591
Woldhurstlea Wood	LWS	4.46	This small block of mixed woodland contains many native trees and shrubs such as oak, ash, hornbeam, hazel, hawthorn and the less common small-leaved lime. The woodland contains a number of ancient woodland indicators	3,717
Tilgate Park	LWS	217.92	Large area of lakes, lawns, woodland and gardens. The area is utilised Tilgate Nature Centre activities and attractions.	4,899
Lobbs Wood & Furnace Pond	LWS	32.17	Lobbs Wood forms part of an ancient woodland complex situated north of Crawley Down. The gill, or steeply incised stream valley is a very valuable feature. Furnace Pond, presumably a hammer pond created for the Wealden iron industry, is a large area of open water surrounded by ancient woodland. Its considerable ornithological importance is well documented.	4,690
Kilnwood Copse	LWS	4.07	An area of woodland and ponds. It also contains the small leaved lime as well as mosses and liverworts.	4,924
Buchan Country Park	LWS	55.97	Please see Buchan Country Park described above.	4,923
<i>The Roughs</i>	SNCI	5.92	<i>Ancient Semi-natural Woodland and damp, semi-improved grassland. Selected as Ancient Semi-natural Woodland supporting at least 18 ancient woodland indicator species. Fine-leaved water-dropwort, (Oenanthe aquatica), a species shown as Locally Rare on the Surrey Rare Plant Register is present on the site.</i>	82

Statutory and Non-statutory Designated Sites within 5 km of the Project Site				
Site name	Type	Approximate area (ha)	Interest Features	Distance from site (metres)
<i>Withy Gill</i>	SNCI	1.21	<i>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, and merits protection and conservation as a valuable feature in the landscape. However, the presence of the nationally rare plant Narrow-leaved Water-dropwort (Oenanthe silaifolia), considerably raises the sites importance and thereby the need for its protection.</i>	172
<i>Dukes copse</i>	SNCI	3.3	<i>Ancient Semi-natural Woodland with formerly managed Hornbeam (Carpinus betulus) coppice with Oak (Quercus robur) standards.</i>	4,370
<i>Leg of Mutton Wood, The Jordans and Jordans Wood</i>	SNCI	51.35	<i>Ancient Semi-natural Woodland with some conifer plantation. 45 ancient woodland indicator species recorded.</i>	3,363
<i>Brook Wood</i>	SNCI	11.84	<i>Selected for the Ancient Semi-natural Woodland habitat which covers 11.5 ha and supports at least 25 ancient woodland indicator species. Wild Daffodil (Narcissus pseudonarcissus subsp. pseudonarcissus) a species shown as Locally Rare on the Surrey Rare Plant Register is present on the site.</i>	1,791
<i>Bridgeham Wood</i>	SNCI	4.48	<i>The site is selected for its woodland habitat including 2.9 ha of ancient semi-natural woodland and 0.5 ha of ancient re-planted woodland. 36 ancient woodland indicator species have been recorded on the site since 2004.</i>	1,030
<i>Acorn Wood, Cidermill and The Birches</i>	SNCI	14.62	<i>Ancient Semi-natural Woodland, Ash (Fraxinus excelsior) frequent with Oak (Quercus robur), overstood Hornbeam (Carpinus betulus) coppice and Field Maple (Acer campestre).</i>	3,210
<i>Wheatfield Marsh</i>	SNCI	1.16	<i>Dry woodland, Willow (Salix sp.) scrub and open fen vegetation with Brown Sedge (Carex disticha) present. Selected for the presence of Brown Sedge, a rare plant in Surrey.</i>	1,671
<i>Copper Coin Pond</i>	SNCI	1.22	<i>Mesotrophic pond and broad-leaved semi-natural woodland. Relict Unimproved grassland.</i>	1,422
<i>Copper Coin Paddocks</i>	SNCI	1.01	<i>Unimproved mesotrophic grassland with small area of improved grassland.</i>	1,399
<i>Charlwood Stanhill Court Meadow</i>	SNCI	8.49	<i>The site is selected for its unimproved neutral grassland habitat. 30 species typical of grassland of conservation interest in Surrey have been recorded on the site including four in the draft Surrey Rare Plant Register</i>	2,054
<i>Langshott Wood</i>	SNCI	6.79	<i>More than 5 ha of Ancient Semi-natural Woodland habitat with ten ancient woodland indicator species recorded.</i>	1,722

Abbreviations used in Table 3.2.1: SSSI: Site of Special Scientific Interest; LNR: Local Nature Reserve; CP: County Park; DRV: Designated Road Verge; LWS: Local Wildlife Site; NP: Not provided; ha: hectare; SAC: Special Area of Conservation; SPA: Special Protection Area; SNCI: Site of Nature Conservation Interest. Records in italic are not up to date, as they were provided by Surrey Biodiversity Information Centre in 2016.

Table 3.2.2: European Designated Sites within 30 km of the Project Site, Designated for Bats

Statutory and non-statutory designated sites within 5 km of the Project site				
Site name	Type	Approximate area (ha)	Interest Features	Distance from site (metres)
The Mens	SAC	203.28	The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts barbastelle bat <i>Barbastella barbastellus</i> , which is listed in Annex II.	25,000
Ebernoe Common	SAC	234.93	A maternity colony of barbastelles <i>Barbastella barbastellus</i> utilises a range of tree roosts in this area of 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles, which has a dense understorey of holly <i>Ilex aquifolium</i> as well as open glades and open water. Maternity roost sites are usually in dead tree stumps, but the species appears to be present throughout the year, with individuals utilising a range of roost sites in tree holes and under bark.	29,000

Statutory and non-statutory designated sites within 5 km of the Project site				
Site name	Type	Approximate area (ha)	Interest Features	Distance from site (metres)
			A maternity colony of bechstein's bat <i>Myotis bechsteinii</i> is also associated with this area of 91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles. Roosts are mainly in old woodpecker holes in the stems of live mature oak <i>Quercus petraea</i> trees.	

Abbreviations used in Table 3.2.2: SAC: Special Area of Conservation

Table 3.2.3: European Designated Sites included in road traffic emissions assessment

Statutory and non-statutory designated sites within 5 km of the Project site				
Site name	Type	Approximate area (ha)	Interest Features	Distance from site (metres)
Thames Basin Heaths	SPA	8,274	The site is a composite of remnant heathland and associated habitats spread across Surrey, Hampshire and Berkshire. It is cited for the populations of breeding nightjar <i>Caprimulgus europaeus</i> , woodlark <i>Lullula arborea</i> and Dartford warbler <i>Sylvia undata</i> it supports. The Ockham and Wisley Common SSSI component of the SPA is located directly adjacent to the A3 and J10 of the M25.	24,000
Thursley, Ash, Pirbright and Chobham	SAC	5,154	The site represents a large area of the Annex I habitats Northern Atlantic Wet Heaths with <i>Erica tetralix</i> , European Dry Heaths and Depressions on Peat Substrates of the <i>Rhynchosporion</i> . It forms part of the Thames Basin Heaths SPA. The Chobham Common SSSI component of this SAC is located adjacent to the M3.	33,800

Abbreviations used in Table 3.2.2: SPA: Special Protection Area; SAC: Special Area of Conservation.

3.3 Records of Protected and Other Notable Species

3.3.1 Protected or notable species refers to any species protected or listed under the following legislation or which is identified as being of nature conservation concern in the lists referred to below.

3.3.2 Protected Species:

- The Conservation of Habitats and Species Regulations 2017, as amended - Schedule 2 (European Protected Species) (Hab Reg Sch2);
- Council Directive 79/409/EEC on the Conservation of Wild Birds ("Birds Directive") (BDIR) Annex 1;
- Wildlife and Countryside Act 1981 (as amended) (Schedules 1, 5 and 8) (WCA1/WCA5/WCA8); and
- The Protection of Badgers Act 1992 (PBA).

3.3.3 Other Notable Species:

- The Natural Environment and Rural Communities (NERC) Act 2006. Section 41; Habitats and Species of Principal Importance in England (S41);
- UK Biodiversity Action Plan Priority Species (UKBAP)
- Birds of Conservation Concern 4 UK Red or Amber listed birds (Red or Amber);
- Global Red List (GRL) status – Near Threatened (NT);
- Red listing based on the International Union for Conservation of Nature (IUCN) guidelines – Near threatened (NT), Vulnerable (VU), Endangered (EN), Rare (RA), Critically Rare (CR), Critically Endangered (CE), Possibly Extinct (PE), (excluding Data Deficient and Least Concern);
- Bird: Breeding (br), non-breeding (nb), Flora: Great Britain (GB), England (ENG);
- rare and scarce species not based on IUCN criteria – Nationally Notable (NN), Nationally Notable B (NNB), Nationally Scarce (NS), Nationally Rare (NR);
- Local BAP Species Sussex – LBAP (Sussex);
- Local BAP Species Surrey – LBAP (Surrey);
- local protected species Sussex – Sx PSR; and
- locally rare species Sussex – Sx Rare.

3.3.4 Records of protected and otherwise notable species provided by Sussex Biodiversity Record Centre and Gatwick's Annual Biodiversity Review 2018 are summarised in the tables below.

3.3.5 Exact locations for species reported as part of Gatwick's Annual Biodiversity Review, have not been supplied. However, where the report details the area, pond or zone in which the species has

been identified, this has been noted in Table 3.3.1. The locations of the areas, ponds and zones detailed within Table 3.3.1 are shown on Figure 3.3.1. All other records are shown on Figures 3.3.2 to 3.3.7. The distances from site reported in Table 3.3.1 are based on grid references with a minimum of six figures. Records with less accurate locations have a 'X' for distance within the table. The locations of these records can be seen on Figures 3.3.2 to 3.3.7.

Birds

3.3.6 A total of 51 protected or notable species of bird have been recorded within the search area; these are listed in Table 3.3.1 below and shown on Figure 3.3.2.

3.3.7 The bird records include ten species specially protected under the Wildlife and Countryside Act 1981 (as amended) (WCA) and three protected under the Birds Directive. A total of 12 are listed under Section 41 of the NERC Act (2006) and are UK Biodiversity Action Plan Priority Species.

Mammals

Bats

3.3.8 All bats are European Protected Species and listed under the WCA. Noctule *Nyctalus noctula*, Western Barbastelle *Barbastella barbastellus*, Bechstein's bat *Myotis bechsteinii*, Soprano Pipistrelle *Pipistrellus pygmaeus* and Brown Long-eared bat *Plecotus auritus* are also Species of Principal Importance in England and UK BAP species.

3.3.9 At least 14 species of bats were recorded within the 10 km search area and a number of records were provided for bats not identified to species level. These could therefore account for other additional species. The bat species recorded are listed in Table 3.3.1 below and shown on Figure 3.3.3.

3.3.10 Common pipistrelle bat species was the most recorded within the search area.

Otter and Dormouse

3.3.11 European otter *Lutra lutra* and hazel dormouse *Muscardinus avellanarius* are European Protected Species, protected under the WCA, listed under Section 41 of the NERC Act (2006) and are UK BAP Priority Species.

3.3.12 There are two records of otter within the 10 km search area. Sussex Biodiversity Record Centre also reported recent reports

of otters on a number of nearby river systems including the Arun, Rother, Wey and Medway. Sussex Biodiversity Record Centre advised that otters reported outside of the search area may travel into the search area given the dispersal abilities. The species recorded are listed in Table 3.3.1 below and shown on Figure 3.3.4.

Badger

3.3.13 Badger *Meles meles* and their setts are protected under the PBA 1992 which makes it illegal to kill, injure or take badgers or to interfere with a badger sett.

3.3.14 None of the badger record centres contacted (Table 3.1.1) reported any records of badgers within the 2 km search area. However, the Gatwick's Annual Biodiversity Review 2018 reports records of badger within the 2 km search area.

Other Mammals

3.3.15 One other protected and notable mammal species was recorded within the 2 km search area. The mammal species recorded are listed in Table 3.3.1 below and shown on Figure 3.3.4.

Herpetofauna

3.3.16 Eight herpetofauna species have been recorded within the 2 km search area. The species recorded are listed in Table 3.3.1 below and shown on Figure 3.3.5.

3.3.17 Five amphibian species have been recorded within the 2 km search area including great crested newt.

3.3.18 All amphibian species recorded are protected under the WCA. Common toad and great crested newts are also listed under Section 41 of the NERC Act (2006) and great crested newt is a European Protected Species.

3.3.19 Three reptile species have been recorded within the 2 km search area.

3.3.20 All the reptile species recorded are protected under the WCA, listed under Section 41 of the NERC Act (2006) and are UKBAP Species.

Fish

3.3.21 Three fish species have been recorded within the 2 km search area. The species recorded are listed in Table 3.3.1 below and shown on Figure 3.3.5.

Invertebrates

- 3.3.22 A total of 88 invertebrate species have been recorded within 2 km of the search area and a number of records were provided for invertebrates not identified to species level. These could therefore account for other additional species. The species recorded are listed in Table 3.3.1 below and shown on Figure 3.3.6.
- 3.3.23 Of the invertebrate species listed in Table 3.3.1, 29 are listed under Section 41 of the NERC Act (2006) and are UKBAP Species.

Flora

- 3.3.24 Forty-three plant species have been recorded within the 2 km search area. The species recorded are listed in Table 3.3.1 below and shown on Figure 3.3.7. The plants protected under the WCA were recorded within the Project site boundary; bluebell and pennyroyal.

Table 3.3.1: Summary of Protected and Notable Species Recorded within 2 km and 10 km of the Project Site.

Summary of Protected and Notable Species Recorded within 2 km and 10 km of the Project Site.					
Common name	Scientific name	Year of most recent record	Distance from site (metres)	Information Source	Conservation status
Birds					
Lesser Redpoll	<i>Acanthis cabaret</i>	2017	X	SBRC	UKBAP, NERC S41, Bird: Red,
Common Sandpiper	<i>Actitis hypoleucos</i>	2018	Land East of the Railway Line	Gatwick's Annual Biodiversity Review 2018	Bird: Amber, IUCN VU
Skylark	<i>Alauda arvensis</i>	2018	North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	NERC S41, UKBAP, Bird: Red
Kingfisher	<i>Alcedo atthis</i>	2019	0	SBRC	BDIR1, WCA1, Bird: Amber
Teal	<i>Anas crecca</i>	2017	North West Zone	Gatwick's Annual Biodiversity Review 2018	Bird: Amber,
Mallard	<i>Anas platyrhynchos</i>	2018	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Amber, IUCN NTnb
Greylag Goose	<i>Anser anser</i>	2016	North West Zone	Gatwick's Annual Biodiversity Review 2018	Bird: Amber,
Meadow Pipit	<i>Anthus pratensis</i>	2018	Land East of the Railway Line, North West Zone	Gatwick's Annual Biodiversity Review 2018	Bird: Amber,
Swift	<i>Apus apus</i>	2018	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Amber, IUCN ENbr
Linnet	<i>Carduelis cannabina</i>	LERL-2016. NWZ-2018	Land East of the Railway Line, North West Zone	Gatwick's Annual Biodiversity Review 2018	Bird: Red
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	2018	Land East of the Railway Line	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Amber, IUCN VUbr,
Hawfinch	<i>Coccothraustes coccothraustes</i>	2017	Land East of the Railway Line	SBRC and Gatwick's Annual Biodiversity Review 2018	UKBAP, NERC S41, Bird: Red, IUCN ENbr
Stock Dove	<i>Columba oenas</i>	2018	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Amber,
Cuckoo	<i>Cuculus canorus</i>	2017	North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	NERC S41, UKBAP, Bird: Red,
Mute Swan	<i>Cygnus olor</i>	2015	X	SBRC	Bird: Amber
House Martin	<i>Delichon urbicum</i>	LERL-2016. NWZ-2018	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Amber, IUCN VUbr
Lesser Spotted Woodpecker	<i>Dendrocopos minor</i>	2009	X	SBRC	NERC S41, UKBAP, Bird: Red, IUCN ENbr
Yellowhammer	<i>Emberiza citrinella</i>	2011	X	SBRC	NERC S41, UKBAP, Bird: Red
Reed Bunting	<i>Emberiza schoeniclus</i>	2018	North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	NERC S41, UKBAP, Bird: Amber
Hobby	<i>Falco subbuteo</i>	2017	0	SBRC	WCA1
Kestrel	<i>Falco tinnunculus</i>	2018	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	IUCN VUbr, Bird: Amber

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Common name	Scientific name	Year of most recent record	Distance from site (metres)	Information Source	Conservation status
Common Snipe	<i>Gallinago gallinago</i>	2018	Land East of the Railway Line, North West Zone	Gatwick's Annual Biodiversity Review 2018	Bird: Amber
Herring Gull	<i>Larus argentatus</i>	LERL-2015. NWZ-2017	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Red, IUCN ENnb
Common Gull	<i>Larus canus</i>	2018	0	SBRC	Bird: Amber
Lesser Black-backed Gull	<i>Larus fuscus</i>	2017	Land East of the Railway Line	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Amber
Nightingale	<i>Luscinia megarhynchos</i>	LERL-2018. NWZ-2016	Horleyland Wood, Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Red, IUCN VUbr
Red Kite	<i>Milvus milvus</i>	2019	0	SBRC	BDIR1, WCA1, GRL NT
Grey Wagtail	<i>Motacilla cinerea</i>	LERL-2018. NWZ-2016	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Red, IUCN NTbr
Curlew	<i>Numenius arquata</i>	2010	1881.580	SBRC	NERC S41, UKBAP, GRL NT, Bird: Red, IUCN EN
House Sparrow	<i>Passer domesticus</i>	2016	0	SBRC	NERC S41, UKBAP, Bird: Red
Black Redstart	<i>Phoenicurus ochruros</i>	2012	0	SBRC	WCA1, Bird: Red, IUCN ENbr/NTnb
Common Redstart	<i>Phoenicurus phoenicurus</i>	2016	Land East of the Railway Line	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Amber,
Willow Warbler	<i>Phylloscopus trochilus</i>	LERL-2017. NWZ-2018	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird:Amber
Marsh Tit	<i>Poecile palustris</i>	2018	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Red, IUCN VUbr
Duncock	<i>Prunella modularis</i>	2018	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Amber
Bullfinch	<i>Pyrrhula pyrrhula</i>	2018	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Amber
Firecrest	<i>Regulus ignicapilla</i>	2017	616.940	SBRC	WCA1
Whinchat	<i>Saxicola rubetra</i>	2017	Land East of the Railway Line, North West Zone	Gatwick's Annual Biodiversity Review 2018	Bird: Red, IUCN NTbr
Woodcock	<i>Scolopax rusticola</i>	2018	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Red, IUCN VUbr,
Turtle Dove	<i>Streptopelia turtur</i>	2017	North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	UKBAP, NERC S41, Bird: Red, IUCN CEbr
Tawny Owl	<i>Strix aluco</i>	2018	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Amber, IUCN NTbr
Starling	<i>Sturnus vulgaris</i>	LERL-2018. NWZ-2017	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Red, IUCN VUbr, UKBAP
Dartford Warbler	<i>Sylvia undata</i>	2017	Land East of the Railway Line	Gatwick's Annual Biodiversity Review 2018	BDIR1, WCA1, GRL NT, Bird: Amber, IUCN VUbr

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Common name	Scientific name	Year of most recent record	Distance from site (metres)	Information Source	Conservation status
Greenshank	<i>Tringa nebularia</i>	2018	Crawley Sewage Works	Gatwick's Annual Biodiversity Review 2018	WCA1, Bird: Amber
Green Sandpiper	<i>Tringa ochropus</i>	2018	Land East of the Railway Line	Gatwick's Annual Biodiversity Review 2018	WCA1, Bird: Amber, IUCN ENbr, IUCN ENnb
Redwing	<i>Turdus iliacus</i>	2018	Land East of the Railway Line, North West Zone	Gatwick's Annual Biodiversity Review 2018	WCA1, IUCN CEbr
Song Thrush	<i>Turdus philomelos</i>	2018	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	UKBAP, NERC S41, Bird: Red
Fieldfare	<i>Turdus pilaris</i>	2017	Land East of the Railway Line, North West Zone	Gatwick's Annual Biodiversity Review 2018	WCA1, Bird: Red, IUCN CR(PE)br,
Mistle Thrush	<i>Turdus viscivorus</i>	LERL-2018, NWZ-2016	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	Bird: Red, IUCN VUbr
Barn Owl	<i>Tyto alba</i>	2018	0	SBRC	WCA1
Mammals (Bats)					
Western Barbastelle	<i>Barbastella barbastellus</i>	2011	9394.17	SBRC	Hab Reg Sch2, WCA5, NERC S41, UKBAP, GRL NT
Bat sp.	<i>Chiroptera</i>	2018	0	SBRC	Hab Reg Sch2, WCA5, NERC S41, UKBAP, GRL NT
Serotine	<i>Eptesicus serotinus</i>	2018	Y Lagoon	SBRC and Gatwick's Annual Biodiversity Review 2018	Hab Reg Sch2, WCA5
Myotis Bat	<i>Myotis</i>	2018	0	SBRC	Hab Reg Sch2, WCA5, NERC S41, UKBAP, GRL NT
Alcathoe Bat	<i>Myotis alcathoe</i>	2016	9394.17	SBRC	Hab Reg Sch2, WCA5
Bechstein's Bat	<i>Myotis bechsteinii</i>	2015	0	SBRC	Hab Reg Sch2, WCA5, NERC S41, UKBAP, GRL NT
Brandt's Bat	<i>Myotis brandtii</i>	2016	0	SBRC	Hab Reg Sch2, WCA5
Daubenton's Bat	<i>Myotis daubentonii</i>	2017	0	SBRC	Hab Reg Sch2, WCA5
Whiskered Bat	<i>Myotis mystacinus</i>	2018	Charlwood Park Farmhouse	SBRC and Gatwick's Annual Biodiversity Review 2018	Hab Reg Sch2, WCA5
Natterer's Bat	<i>Myotis nattereri</i>	2014	0	SBRC	Hab Reg Sch2, WCA5
Lesser Noctule	<i>Nyctalus leisleri</i>	2018	970.99	SBRC and Gatwick's Annual Biodiversity Review 2018	Hab Reg Sch2, WCA5
Noctule Bat	<i>Nyctalus noctula</i>	2018	River Mole and/or Rolls Farm, Y Lagoon	SBRC and Gatwick's Annual Biodiversity Review 2018	Hab Reg Sch2, WCA5, NERC S41, UKBAP
Pipistrelle	<i>Pipistrellus sp.</i>	2018	0	SBRC	Hab Reg Sch2, NERC S41, WCA5, UKBAP
Nathusius's Pipistrelle	<i>Pipistrellus nathusii</i>	2018	0	SBRC	Hab Reg Sch2, WCA5
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	2018	River Mole and/or Rolls Farm	SBRC and Gatwick's Annual Biodiversity Review 2018	Hab Reg Sch2, NERC S41, WCA5
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	2018	River Mole and/or Rolls Farm, Brockley Wood, River Mole Corridor	SBRC and Gatwick's Annual Biodiversity Review 2018	Hab Reg Sch2, WCA5, NERC S41, UKBAP
Long-eared sp.	<i>Plecotus</i>	2018	1442.86	SBRC	Hab Reg Sch2, WCA5, NERC S41, UKBAP

Summary of Protected and Notable Species Recorded within 2 km and 10 km of the Project Site.					
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Brown Long-eared Bat	<i>Plecotus auritus</i>	2018	River Mole and/or Rolls Farm, Lower Picketts Wood	SBRC and Gatwick's Annual Biodiversity Review 2018	Hab Reg Sch2, WCA5, NERC S41, UKBAP
Mammals					
West European Hedgehog	<i>Erinaceus europaeus</i>	2017	0	SBRC	NERC S41, UKBAP
Otter	<i>Lutra lutra</i>	2012	0	SBRC	Hab Reg Sch2, WCA5, UKBAP, NERC S41, Sx BAP, Sx PSR
Badger	<i>Meles meles</i>	2018	Confidential	Gatwick's Annual Biodiversity Review 2018	PBA
Harvest Mouse	<i>Micromys minutus</i>	2016	0	SBRC	NERC S41, UKBAP
Hazel Dormouse	<i>Muscardinus avellanarius</i>	2016	0	SBRC	Hab Reg Sch2, WCA5, NERC S41, UKBAP
Amphibians					
Common Toad	<i>Bufo bufo</i>	2018	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	WCA5, UKBAP, NERC S41
Palmate Newt	<i>Lissotriton helveticus</i>	2018	Land East of the Railway Line	SBRC and Gatwick's Annual Biodiversity Review 2018	WCA5
Smooth Newt	<i>Lissotriton vulgaris</i>	LERL-2018, NWZ-2014	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	WCA5
Common Frog	<i>Rana temporaria</i>	2017	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	WCA5
Great Crested Newt	<i>Triturus cristatus</i>	2018	Pond 3, Pond 4, Charlwood 1	SBRC and Gatwick's Annual Biodiversity Review 2018	Hab Reg Sch2, WCA5, NERC S41,
Fish					
Bullhead	<i>Cottus gobio</i>	2015	0	SBRC	Sx Rare
Brown/Sea Trout	<i>Salmo trutta</i>	2016	0	SBRC	NERC S41, UKBAP
Brown Trout	<i>Salmo trutta subsp. fario</i>	2016	0	SBRC	NERC S41, UKBAP
Reptiles					
Slow-worm	<i>Anguis fragilis</i>	2017	Land East of the Railway Line	SBRC and Gatwick's Annual Biodiversity Review 2018	WCA5, NERC S41, UKBAP
Grass snake	<i>Natrix helvetica</i>	2018	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	WCA5, NERC S41, UKBAP
Common lizard	<i>Zootoca vivipara</i>	2015	1526.71	SBRC	WCA5, NERC S41, UKBAP
Invertebrates					
Knot Grass	<i>Acronicta rumicis</i>	2016	0	SBRC	NERC S41, UKBAP
A Beetle	<i>Agabus</i>	2011	0	SBRC	NNB
A ground beetle	<i>Anthracus consputus</i>	2018	Pond 5	SBRC and Gatwick's Annual Biodiversity Review 2018	NNB, NS

Summary of Protected and Notable Species Recorded within 2 km and 10 km of the Project Site.					
Common name	Scientific name	Year of most recent record	Distance from site (metres)	Information Source	Conservation status
Purple Emperor	<i>Apatura iris</i>	2016	North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	WCA5, IUCN NT
Lake Pondskater	<i>Aquarius paludum</i>	2018	Pond 2	Gatwick's Annual Biodiversity Review 2018	NNB, NS
A Spider	<i>Araneus angulatus</i>	2015	0	SBRC	NS
Centre-barred Sallow	<i>Atethmia centrago</i>	2014	0	SBRC	NERC S41, UKBAP
An Ant, Bee, Sawfly or Wasp	<i>Auplopus carbonarius</i>	2014	0	SBRC	NNB
Dotted Bee-fly	<i>Bombylius discolor</i>	2019	0	SBRC	NN, NS
Bulrush Veneer	<i>Calamotropha paludella</i>	2013	0	SBRC	NNB
A True Fly	<i>Callicera aurata</i>	2018	0	SBRC	IUCN RA, NS
A Beetle	<i>Cantharis fusca</i>	2018	0	SBRC	NS
Mottled Rustic	<i>Caradrina morpheus</i>	2018	0	SBRC	NERC S41, UKBAP
A True Fly	<i>Cephalops pannonicus</i>	2018	X	SBRC	NS
Little Carpenter Bee	<i>Ceratina cyanea</i>	2018	Grass slope adjacent to the River Mole, south-west of Brockley Wood	Gatwick's Annual Biodiversity Review 2018	IUCN RA
A True Fly	<i>Cistogaster globosa</i>	2018	X	SBRC	IUCN EN
Small Heath	<i>Coenonympha pamphilus</i>	2019	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	NERC S41, UKBAP, IUCN NT, Sx Rare
Long-winged Cone-head	<i>Conocephalus fuscus</i>	2018	0	SBRC	Sx Rare
Downy Emerald	<i>Cordulia aenea</i>	2019	0	SBRC	Sx Rare
A True Bug	<i>Corizus hyoscyami</i>	2015	0	SBRC	Sx Rare
Oak Lutestring	<i>Cymatophorina diluta</i>	2017	0	SBRC	NERC S41, UKBAP, Sx Rare
Small Square-spot	<i>Diarsia rubi</i>	2016	0	SBRC	NERC S41, UKBAP, Sx Rare
Small Phoenix	<i>Ecliptopera silaceata</i>	2015	0	SBRC	NERC S41, UKBAP, Sx Rare
Dusky Thorn	<i>Ennomos fuscantaria</i>	2015	0	SBRC	NERC S41, UKBAP, Sx Rare
Galium Carpet	<i>Epirrhoe galiata</i>	2015	0	SBRC	NERC S41, UKBAP, Sx Rare
Dingy Skipper	<i>Erynnis tages</i>	LERL-2016. NWZ-2018	NWZ and LERL	SBRC and Gatwick's Annual Biodiversity Review 2018	NERC S41, UKBAP, IUCN VU
Small Red-eyed Damselfly	<i>Erythromma viridulum</i>	2013	0	SBRC	Sx Rare
Long-horned Bee	<i>Eucera (Eucera) longicornis</i>	2019	Grass slope adjacent to the River Mole, south-west of Brockley Wood	SBRC and Gatwick's Annual Biodiversity Review 2018	NERC S41, UKBAP, NNA
Marsh Grey	<i>Eudonia pallida</i>	2018	0	SBRC	Sx Rare
A rove beetle	<i>Gnypeta ripicola</i>	2018	Goat Meadow Scrape	Gatwick's Annual Biodiversity Review 2018	NN, Sx Rare
Brimstone	<i>Gonepteryx rhamni</i>	2018	Grass slope adjacent to the River Mole, south-west of Brockley Wood	Gatwick's Annual Biodiversity Review 2018	Sx Rare

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A True Bug	<i>Grypocoris (Lophyromiris) stysi</i>	2019	0	SBRC	Sx Rare
Brooklime Weevil	<i>Gymnetron veronicae</i>	2018	Pond 4 and Pond 7	Gatwick's Annual Biodiversity Review 2018	NNB
A True Fly	<i>Gymnosoma rotundatum</i>	2015	X	SBRC	IUCN RA
A Beetle	<i>Gyrinus minutus</i>	2012	0	SBRC	NS
A Beetle	<i>Gyrinus urinator</i>	2012	0	SBRC	Sx Rare
Ghost Moth	<i>Hepialus humuli</i>	2017	0	SBRC	NERC S41, UKBAP
Adonis' Ladybird	<i>Hippodamia (Adonia) variegata</i>	2018	0	SBRC	NNB, Sx Rare
Rustic	<i>Hoplodrina blanda</i>	2018	0	SBRC	NERC S41, UKBAP, Sx Rare
Rosy Rustic	<i>Hydraecia micacea</i>	2014	0	SBRC	NERC S41, UKBAP, Sx Rare
Lobe-spurred Furrow Bee	<i>Lasioglossum pauxillum</i>	2018	Grass slope adjacent to the River Mole, south-west of Brockley Wood	Gatwick's Annual Biodiversity Review 2018	NNA, Sx Rare
Ridge-cheeked Furrow Bee	<i>Lasioglossum puncticolle</i>	2018	Grass slope adjacent to the River Mole, south-west of Brockley Wood	Gatwick's Annual Biodiversity Review 2018	NNB, Sx Rare
Brown Tree Ant	<i>Lasius brunneus</i>	2015	0	SBRC	NNA, Sx Rare
Shoulder-striped Wainscot	<i>Leucania comma</i>	2016	0	SBRC	NERC S41, UKBAP, Sx Rare
White Admiral	<i>Limenitis camilla</i>	LERL-2018. NWZ-2017	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	NERC S41, UKBAP, IUNC VU, Sx Rare
A Caddis Fly	<i>Limnephilus binotatus</i>	2015	0	SBRC	NS, Sx Rare
A True Bug	<i>Lygus pratensis</i>	2018	1250.84	SBRC	IUCN RA, NNB
A Caddis Fly	<i>Lype phaeopa</i>	2016	0	SBRC	Sx Rare
Loosestrife Flea Beetle	<i>Lythraia salicariae</i>	2011	1743.68	SBRC	NNB, NS
Lackey	<i>Malacosoma neustria</i>	2018	0	SBRC	NERC S41, UKBAP, Sx Rare
A Spider	<i>Marpissa muscosa</i>	2014	0	SBRC	NS
A True Fly	<i>Merzomyia westermanni</i>	2018	X	SBRC	NN, Sx Rare
Wainscot Neb	<i>Monochroa palustrellus</i>	2018	0	SBRC	NNB
Variiegated Mordellid Beetle	<i>Mordellistena variegata</i>	2018	Pond 4	Gatwick's Annual Biodiversity Review 2018	NS, Sx Rare
A True Fly	<i>Myopites inulaedyssentericae</i>	2018	0	SBRC	IUCN RA, Sx Rare
A hoverfly	<i>Neoascia interrupta</i>	2018	Pond 3	Gatwick's Annual Biodiversity Review 2018	NS, NN, Sx Rare
Painted Nomad Bee	<i>Nomada fucata</i>	2018	Grass slope adjacent to the River Mole, south-west of Brockley Wood	Gatwick's Annual Biodiversity Review 2018	NNA, Sx Rare
Black-headed Mason Wasp	<i>Odynerus (Odynerus) melanocephalus</i>	2014	0	SBRC	NERC S41, UKBAP, NNA

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Common name	Scientific name	Year of most recent record	Distance from site (metres)	Information Source	Conservation status
Black-tailed Skimmer	<i>Orthetrum cancellatum</i>	2018	Not provided	Gatwick's Annual Biodiversity Review 2018	Sx Rare
Orange-vented Mason Bee	<i>Osmia (Chalcosmia) leaiana</i>	2014	0	SBRC	Sx Rare
Water-pepper Weevil	<i>Pelenomus waltoni</i>	2018	Pond 7 and Goat Meadow Scrape	Gatwick's Annual Biodiversity Review 2018	NNB, Sx Rare
A Beetle	<i>Peltodytes caesus</i>	2016	0	SBRC	NS, Sx Rare
A Beetle	<i>Pilemostoma fastuosa</i>	2018	0	SBRC	NNA, IUCN NT, IUNC RA, Sx Rare
A Beetle	<i>Platystomos albinus</i>	2018	0	SBRC	NNB, Sx Rare
Mallow Flea Beetle	<i>Podagrica fuscicornis</i>	2018	0	SBRC	NNB, NS
A Beetle	<i>Polydrusus (Chrysophis) formosus</i>	2014	1093.90	SBRC	NNA, Sx Rare
A Beetle	<i>Polydrusus (Eustolus) flavipes</i>	2013	X	SBRC	NNB, Sx Rare
Grizzled Skipper	<i>Pyrgus malvae</i>	2016	North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	NERC S41, UKBAP, IUCN VU
Black-headed Cardinal Beetle	<i>Pyrochroa coccinea</i>	2014	0	SBRC	NNB, Sx Rare
A Beetle	<i>Rhantus (Rhantus) frontalis</i>	2011	0	SBRC	NNB, NS, Sx Rare
A Beetle	<i>Rhinocyllus conicus</i>	2013	X	SBRC	NNA, Sx Rare
A True Fly	<i>Sarcophaga villeneuvei</i>	2018	X	SBRC	IUCN RA, Sx Rare
White-letter Hairstreak	<i>Satyrrium w-album</i>	2018	Land East of the Railway Line, North West Zone	Gatwick's Annual Biodiversity Review 2018	WCA5, NERC S41, UKBAP, IUCN EN, Sx Rare
Shaded Broad-bar	<i>Scotopteryx chenopodiata</i>	2017	0	SBRC	NERC S41, UKBAP
The Shining Ram's-horn	<i>Segmentina nitida</i>	2013	0	SBRC	NERC S41, UKBAP, NS
A True Bug	<i>Sigara (Sigara) striata</i>	2017	0	SBRC	NNB, NS
Brilliant Emerald	<i>Somatochlora metallica</i>	2014	0	SBRC	IUCN VU, Sx Rare
White Ermine	<i>Spilosoma lubricipeda</i>	2016	0	SBRC	NERC S41, UKBAP, Sx Rare
Buff Ermine	<i>Spilosoma lutea</i>	2017	0	SBRC	NERC S41, UKBAP, Sx Rare
Long-horned General	<i>Stratiomys longicornis</i>	2015	0	SBRC	NS
A Beetle	<i>Synchita humeralis</i>	2013	X	SBRC	NNB, NS, Sx Rare
Brown Hairstreak	<i>Thecla betulae</i>	2018	Land East of the Railway Line, North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	WCA5, NERC S41, UKBAP, IUNC VU, Sx Rare
Feathered Gothic	<i>Tholera decimalis</i>	2013	0	SBRC	NERC S41, UKBAP, Sx Rare
Blood Vein Moth	<i>Timandra comae</i>	2018	Pond 7	SBRC, Gatwick's Annual Biodiversity Review 2018	NERC S41, UKBAP
Cinnabar	<i>Tyria jacobaeae</i>	2018	0	SBRC	NERC S41, UKBAP
A True Fly	<i>Volucella inanis</i>	2016	0	SBRC	Sx Rare
Oak Hook-tip	<i>Watsonalla binaria</i>	2017	0	SBRC	NERC S41, UKBAP
A Spider	<i>Zilla diodia</i>	2013	X	SBRC	Sx Rare
Flora					
Blushing Wood Mushroom	<i>Agaricus sylvaticus</i>	2018	1565.42	SBRC	Sx Rare

Summary of Protected and Notable Species Recorded within 2 km and 10 km of the Project Site.

Common name	Scientific name	Year of most recent record	Distance from site (metres)	Information Source	Conservation status
Chives	<i>Allium schoenoprasum</i>	2009	1986.89	SBRC	NS
Rooting Bolete	<i>Boletus radicans</i>	2016	1774.92	SBRC	Sx Rare
Box	<i>Buxus sempervirens</i>	2013	1631.72	SBRC	Sx Rare
Heather	<i>Calluna vulgaris</i>	2011	X	SBRC	IUCN NT
Cornflower	<i>Centaurea cyanus</i>	2015	0	SBRC	UKBAP, Sx Rare, NERC S41
Crosswort	<i>Cruciata laevipes</i>	2014	0	SBRC	IUCN NT
A Fungus	<i>Entoleuca mammata</i>	2015	0	SBRC	Sx Rare
Narrow-lipped Helleborine	<i>Epipactis leptochila</i>	2009	334.28	SBRC	NS
Broad-leaved Spurge	<i>Euphorbia platyphyllos</i>	2011	0	SBRC	Sx Rare
Common Cudweed	<i>Filago vulgaris</i>	2009	279.70	SBRC	IUCN NT
Wild Strawberry	<i>Fragaria vesca</i>	2013	246.76	SBRC	IUCN NT
A Fungus	<i>Ganoderma resinaceum</i>	2018	1662.93	SBRC	Sx Rare
Stinking Hellebore	<i>Helleborus foetidus</i>	2009	1234.12	SBRC	NS, Sx Rare
Green Hellebore	<i>Helleborus viridis</i>	2011	1994.47	SBRC	Sx Rare
Hawkweed	<i>Hieracium calcaricola</i>	2014	1813.15	SBRC	Sx Rare
Yellow-glandular Hawkweed	<i>Hieracium sabaudum</i>	2009	1613.03	SBRC	IUCN EN, IUCN NT
Bluebell	<i>Hyacinthoides non-scripta</i>	2016	0	SBRC	WCA8
Spangle Waxcap	<i>Hygrocybe insipida</i>	2016	1507.39	SBRC	Sx Rare
Crimson Wax-Cap	<i>Hygrocybe punicea</i>	2015	1591.25	SBRC	Sx Rare
False Chanterelle	<i>Hygrophoropsis aurantiaca</i>	2016	0	SBRC	Sx Rare
Field Pepperwort	<i>Lepidium campestre</i>	2016	0	SBRC	IUCN NT
White Dapperling	<i>Leucoagaricus leucothites</i>	2014	0	SBRC	Sx Rare
Pipe Club	<i>Macrotyphula fistulosa</i> var. <i>fistulosa</i>	2016	0	SBRC	Sx Rare
Welsh Poppy	<i>Meconopsis cambrica</i>	2011	X	SBRC	NS, Sx Rare
Alder Bracket	<i>Mensularia radiata</i>	2018	1179.55	SBRC	Sx Rare
Corn Mint	<i>Mentha arvensis</i>	2014	0	SBRC	IUCN NT
Pennyroyal	<i>Mentha pulegium</i>	2010	0	SBRC	UKBAP, IUCN EN, IUCN CR, NS, Sx Rare, WCA8, NERC S41
A Lichen	<i>Nectriopsis rubefaciens</i>	2016	0	SBRC	NR
Ivy Broomrape	<i>Orobanche hederæ</i>	2009	1750.48	SBRC	Sx Rare
Wood-sorrel	<i>Oxalis acetosella</i>	2017	0	SBRC	IUCN NT
Oak Toothcrust	<i>Radulomyces molaris</i>	2013	X	SBRC	Sx Rare
Lesser Spearwort	<i>Ranunculus flammula</i>	2018	0	SBRC	IUCN VU
Creeping Willow	<i>Salix repens</i>	2009	1474.44	SBRC	IUCN NT
Sanicle	<i>Sanicula europaea</i>	2013	X	SBRC	IUCN NT
Meadow Saxifrage	<i>Saxifraga granulata</i>	2016	1881.58	SBRC	Sx Rare
Splitgill	<i>Schizophyllum commune</i>	2016	0	SBRC	Sx Rare
Marsh Ragwort	<i>Senecio aquaticus</i>	2010	198.76	SBRC	IUCN NT

Summary of Protected and Notable Species Recorded within 2 km and 10 km of the Project Site.

Common name	Scientific name	Year of most recent record	Distance from site (metres)	Information Source	Conservation status
Rusty Crust	<i>Skeletocutis amorpha</i>	2013	X	SBRC	Sx Rare
Devil's-bit Scabious	<i>Succisa pratensis</i>	2013	X	SBRC	IUCN NT
Leafy Brain	<i>Tremella foliacea</i>	2017	0	SBRC	Sx Rare
White Knight	<i>Tricholoma album</i>	2013	X	SBRC	Sx Rare
Heath Speedwell	<i>Veronica officinalis</i>	2012	246.76	SBRC	IUCN NT

All species records provided by Sussex Biodiversity Record Centre (SBRC) are shown on Figures 3.3.1 – 3.3.6. As reported within Gatwick's Annual Biodiversity Review 2018, the areas in which species were reported is shown on Figure 3.3. Abbreviations used in Table 3.3: WCA1 : Wildlife & Countryside Act Schedule 1, part 1; WCA5: Wildlife & Countryside Act Schedule 5; WCA8: Wildlife & Countryside Act Schedule 8; NR: Nationally Rare; NS: Nationally Scarce; NNB: Nationally Notable B; NN: Nationally Notable; NERC S41: Natural Environment & Rural Communities Act Species of Principal Importance; UKBAP: UK Biodiversity Action Plan priority species; Hab Reg Sch2: Conservation of Habitats and Species Regulations 2017 Schedule 2 (European Protected Species); PBA: Protection of Badgers Act 1992; IUCN NT/VU/EN/RA/CR/CE: Red listing based on IUCN guidelines – Near threatened/Vulnerable/ Endangered/Rare/Critically Rare/Critically Endangered; IUCN NT/VU/EN/RA/CR/CE nb/br: Red listing based on IUCN guidelines – Near threatened/Vulnerable/ Endangered/Rare/Critically Rare/Critically Endangered non-breeding/breeding; GRL NT: Global Red List (GRL) status – Near Threatened; BDIR1: Council Directive 2009/147/EC on the Conservation of Wild Birds ("Birds Directive") Annex 1; Birds:Red: Birds of Conservation Concern 4 UK Red listed birds; Birds:Amber: Birds of Conservation Concern 4 UK Amber listed birds; Sx BAP: Sussex Biodiversity Action Plan priority species; Sx PSR: Sussex Protected Species Register; Sx Rare: Locally Rare Sussex; SBRC: Sussex Biodiversity Record Centre.

4 Conclusion

- 4.1.1 The desk study identified 17 statutory site designations and 21 non-statutory site designations within the search area. They consist of two SACs, one SPA, four SSSIs, seven LNRs, three CPs, 20 LWSs, and one DRV. One LWS was present within the Project site boundary. Two statutory sites of note for their bat populations were also identified beyond the search area, but within 30 km of the site.
- 4.1.2 The desk study also identified a number of records of protected and notable species. Records were provided for 15 bat species within 10 km of the site.
- 4.1.3 Two otter records were provided within the 10 km search area. Other mammals including Eurasian badger and hazel dormouse were also recorded within 2 km of the site.
- 4.1.4 A total of 51 bird species, eight herpetofauna, 56 invertebrate, three fish species and 46 plant species were recorded within the search areas.
- 4.1.5 Records of protected and notable birds, bats, fish, mammals, herpetofauna, invertebrates and plant species were identified during the desk study from within the Project site boundary.

5 References

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6 Glossary

6.1 Glossary of Terms

Table 6.1.1: Glossary of Terms

Term	Description
BAP	Biodiversity Action Plan
CE	Critically Endangered
CIEEM	Chartered Institute of Ecology and Environmental Management
CP	County Parks
CR	Critically Rare
DRV	Designated Road Verge
EIA	Environmental Impact Assessment
EN	Endangered
ENG	England
GAL	Gatwick Airport Limited
GB	Great Britain
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
LNR	Local Nature Reserve
LWS	Local Wildlife Sites
NERC	Natural Environment and Rural Communities
NN	Nationally Notable
NNB	Nationally Notable B
NNR	National Nature Reserve
NR	Nationally Rare
NS	Nationally Scarce
NT	Near Threatened
PE	Possibly Extinct
PEIR	Preliminary Environmental Information Report
RA	Rare
SAC	Special Area of Conservation
SNCI	Sites of Nature Conservation Importance

Term	Description
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
UKBAP	United Kingdom Biodiversity Action Plan
VU	Vulnerable
WCA	Wildlife and Country Act