

Gatwick Airport Northern Runway Project

Environmental Statement

Appendix 9.6.1: Ecological Desk Study

Book 5

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1 Introduction

1.1 Ecological Desk Study

- 1.1.1 The document forms **ES Appendix 9.6.1: Ecological Desk Study** (Doc Ref. 5.3) of the Environmental Statement (ES) prepared on behalf of Gatwick Airport Limited (GAL) for the proposal to make best use of Gatwick Airport’s existing runways and infrastructure (referred to within this report as ‘the Project’).
- 1.1.2 This document provides the ecology desk study for **ES Chapter 9: Ecology and Nature Conservation** (Doc Ref. 5.1) for the Project.
- 1.1.3 Figures are shown in Annex 1 with the site location shown on Figure 1.1.1.
- 1.1.4 This desk study forms part of the Preliminary Ecological Appraisal for the Project, 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, Biodiversity Opportunity Areas (BOAs) within 2km, and European designated sites within 20 km;
 - locate records of bat species with 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 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, 20 km for European designated sites and 10 km was used 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; and
 - 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 non-statutory designated sites within 5 km of the study area.

Consultee	Response
Surrey Biodiversity Information Centre	Provided species records within 10 km (bats and otter) and 2 km of the site. Provided records of non-statutory designated sites within 5 km of the study area.
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 SACs, one SPA, four SSSIs, seven LNRs and three Country Parks (CP). None of the sites fall with the Project boundary.
- 3.2.2 There are 5 BOAs within 2km of the site. BOAs identify the most important areas for wildlife conservation in Surrey, where targeted conservation action will have the greatest benefit. The main aim is to restore biodiversity at a landscape scale through the maintenance, restoration and creation of Priority Habitats.
- 3.2.3 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.
- 3.2.4 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.

- 3.2.5 Further details regarding these sites can be found within Table 3.2.2.
- 3.2.6 A number of areas of ancient woodland are present within the search area and four are within the Project boundary.
- 3.2.7 There are 71 non-statutory designated sites within the 5 km search area and 5 BOAs. 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 boundary, Horleyland Wood LWS. There are 38 Sites of Nature Conservation Interest (SNCIs) and 32 Proposed Sites of Nature Conservation Interest (pSNCIs). The interest features are not provided for pSNCIs.

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 and European Designated Sites within 20 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 neighbouring 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.	1,668
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	A former railway. 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. Birds of note include Chiffchaff, Nuthatch and Kingfisher. Butterflies include [REDACTED], [REDACTED]. 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. The 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.	4,462
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.	4,934
Tilgate Park	CP	100.28	Broad-leaved woodland, with trees such as oak and birch, is important for birds including 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 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 and European Designated Sites within 20 km of the Project Site				
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 supports 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	894.33	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.	9,273
Ashdown Forest	SAC	2,728.31	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.	12,147
	SPA	3,207.08	The woodlands are also varied, with Birch <i>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.	12,147
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>	751
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 birds, butterflies and damselflies.	781
Grattons Pond	LWS	2.62	Within Grattons Park LNR.	1,396

Statutory and Non-statutory Designated Sites within 5 km of the Project Site and European Designated Sites within 20 km of the Project Site				
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	No details 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, Bluebell, butterflies, damselflies and Kingfisher.	1,676
Copthorne Common	LWS	33.28	No details provided.	1,686
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-woodpecker and Tree creeper. There are old wood banks, ditches and abundant deadwood.	2,187
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	See Worth Way Country Park described above.	3,169
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 also be found. Greater reed-mace and the true Bulrush, together with Yellow iris and Water mint are seen at the water's edge	3,135
The Hawth	LWS	11.89	Ancient woodland dominated by Birch, with a dense shrub layer and rich ground flora.	3,737
Worth Meadows	LWS	5.48	Meadow part of Worth Park, the recently restored 1880s Victorian garden.	3,626
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.	3,534
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 a range of plants, mosses, liverworts, birds and butterflies.	3,608
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	3,722
Tilgate Park	LWS	217.92	Large area of lakes, lawns, woodland and gardens. The area is utilised by Tilgate Nature Centre for activities and attractions.	4,429
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.	4,706
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	See Buchan Country Park described above.	4,930
The Roughs	SNCI	5.97	Ancient semi-natural woodland and damp, semi-improved grassland. Identified as ancient semi-natural woodland supporting at least 18 ancient woodland indicator species. Fine-leaved water-dropwort <i>Oenanthe aquatica</i> , a species identified as Locally Rare on the Surrey Rare Plant Register is present on the site.	133
Withy Gill	SNCI	1.04	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 <i>Oenanthe silaifolia</i> , considerably raises the site's importance and thereby the need for its protection.	147
Bridgeham Wood	SNCI	4.4	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.	1,126
Copper Coin Paddocks	SNCI	1.0	Unimproved mesotrophic grassland with small area of improved grassland.	1,400
Copper Coin Pond	SNCI	1.3	Mesotrophic pond and broad-leaved semi-natural woodland. Relict Unimproved grassland.	1,434

Statutory and Non-statutory Designated Sites within 5 km of the Project Site and European Designated Sites within 20 km of the Project Site				
Edolphins Copse	SNCI	27.6	Mixture of ancient semi-natural woodland, secondary woodland and recent scrub and un-wooded meadows. Small-leaved lime (<i>Tilia cordata</i>) and some very large Wild service tree <i>Sorbus torminalis</i> present.	1,583
Wheatfield Marsh	SNCI	1.16	Dry woodland, Willow <i>Salix sp.</i> scrub and open fen vegetation with Brown sedge <i>Carex disticha</i> present. Selected for the presence of Brown sedge, a rare plant in Surrey.	1,672
Langshott Wood	SNCI	6.7	More than 5 ha of ancient semi-natural woodland habitat with ten ancient woodland indicator species recorded.	1,731
Brook Wood	SNCI	11.9	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</i> subsp. <i>pseudonarcissus</i> a species identified as Locally Rare on the Surrey Rare Plant Register is present on the site.	1,888
Bolters Wood	SNCI	1.3	Selected as an ecologically interesting semi-natural woodland of likely ancient status, which has retained its structure and contains coppiced Field maple <i>Acer campestre</i> - rare in Surrey, and other rarities, such as Wild service tree <i>Sorbus torminalis</i> . At least 13 ancient woodland indicator species have been recorded on the site.	1,923
Charlwood Stanhill Court Meadow	SNCI	7.59	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 Surrey Rare Plant Register	2,084
Beggars Gill Wood	SNCI	17.3	Ancient semi-natural woodland with a series of gills. Base enriched ground flora with two ponds present.	2,240
Wrays Wood	SNCI	4.4	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. Small areas of more recent woodland are included in the boundary as they are contiguous and form part of the woodland unit.	2,288
Crutchfield Copse	SNCI	5.4	Selected for 5.9ha of old semi-natural woodland with at least 24 ancient woodland indicator species including Small-leaved lime <i>Tilia cordata</i> .	2,349
Copthorne Meadows	SNCI	21.8	Species rich grassland habitat at least part of which has never been ploughed. 53 plant species typical of grassland of conservation interest in Surrey including 13 species of the England Red List 2014 and 5 regarded as scarce in Surrey were recorded here between 2009 and 2010.	2,451
Ricketts Wood	SNCI	2.5	Ancient semi-natural woodland, locally frequent Hornbeam <i>Carpinus betulus</i> coppice. Areas of base-rich flora along stream, path and pond.	2,579
Woods West of Crutchfield Copse	South SNCI	1.7	Selected as an example of good quality semi-natural broadleaved woodland supporting at least 16 ancient woodland indicator species adjacent to other woodland sites.	2,598
Perry Wood and Gail Lane	SNCI	5.6	The site is selected for its ancient woodland habitat supporting good numbers of ancient woodland indicator species. The connecting byway, bounded by shaws on both sides for much of its length, is included. The byway is particularly notable for its specimens of Wild service tree <i>Sorbus torminalis</i> an uncommon indicator of ancient woodland.	2,813
Pockmires Wood	SNCI	10.8	Ancient semi-natural woodland formerly managed Hornbeam <i>Carpinus betulus</i> , Ash <i>Fraxinus excelsior</i> and Hazel <i>Corylus avellana</i> coppice with Oak <i>Quercus robur</i> and Ash standards. 32 ancient woodland indicator species recorded.	2,908
Alder Gill and Lumber Wood (Beam Brook Copse)	SNCI	2.38	Ancient semi-natural woodland straddling a shallow gill. Former Hornbeam <i>Carpinus betulus</i> coppice with Oak <i>Quercus robur</i> standards. Over-stood coppice of Wych elm <i>Ulmus glabra</i> , Ash <i>Fraxinus excelsior</i> and Hazel <i>Corylus avellana</i> .	3,034
Ten Acre Wood	SNCI	2.6	Ancient semi-natural woodland. Nationally uncommon W8 Hornbeam <i>Carpinus betulus</i> variant. An excellent example of Wealden NVC W8/W10 woodland.	3,081
Acorn Wood, Cidermill and The Birches	SNCI	15.67	Ancient semi-natural woodland, Ash <i>Fraxinus excelsior</i> frequent with Oak <i>Quercus robur</i> , overstood Hornbeam <i>Carpinus betulus</i> coppice and Field Maple <i>Acer campestre</i> .	3,182
Leg of Mutton Wood, The Jordans and Jordans Wood	SNCI	51.35	Ancient semi-natural woodland with some conifer plantation. 45 ancient woodland indicator species recorded.	3,364
Horne Field S of Bones Wood	SNCI	3.3	Unimproved neutral grassland habitat. 20 species typical of grassland of conservation interest in Surrey have been recorded since 2014 including 5 species on the Draft Surrey Rare plant register. It is thought to be the largest population of Dyer's	3,913

Statutory and Non-statutory Designated Sites within 5 km of the Project Site and European Designated Sites within 20 km of the Project Site				
			greenweed <i>Genista tinctoria</i> (VC17 Scarce) in Surrey. In addition, the site is important for invertebrates. Two invertebrate species, rare in Surrey, were recorded in 2010; <i>Heterocordylus genistae</i> and <i>Dichrorampha sylvicolana</i> (Nationally Notable).	
Hornecourt Wood	SNCI	13.7	Ancient semi-natural woodland larger than 5ha. Supports stands of actively coppiced Hornbeam <i>Carpinus betulus</i> .	4,076
Petridgewood Common	SNCI	16.6	The site is selected for its mosaic of habitats including areas of species rich neutral grassland parts of which resemble the uncommon MG5 NVC community and woodland which is adjacent to areas of ancient semi-natural woodland. 25 species typical of grassland of conservation interest in Surrey and 10 ancient woodland indicator species have been recorded on the site between 1994 and 2014. The site is well used by the public. The site was originally selected partly for the good populations of common butterflies.	4,161
Outwood Common	SNCI	28.3	Secondary broad-leaved woodland. Occurring within a larger complex of sites. Ancient Oak <i>Quercus robur</i> trees are present.	4,109
East Outwood	SNCI	1.8	Unimproved mesotrophic grassland.	4,243
Stonehouse Field	SNCI	1.4	Unimproved mesotrophic grassland, underscrub, scrub and woodland.	4,351
Dukes Copse	SNCI	2.9	Ancient semi-natural woodland with formerly managed Hornbeam <i>Carpinus betulus</i> coppice with Oak <i>Quercus robur</i> standards.	4,376
Newdigate Brickworks	SNCI	18.5	Former clay pits and brickworks with two lakes and an area of ancient semi-natural woodland	4,580
Home Grove	SNCI	18.5	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 a surrounding ecological unit.	4,452
Furzefield Wood	SNCI	11.5	Ancient semi-natural woodland larger than 5ha. 19 ancient woodland indicator species were recorded with over 100 plant species in total. The nationally uncommon Hornbeam <i>Carpinus betulus</i> variant of NVC W8 woodland is present.	4,494
Hammond's Copse	SNCI	29.6	Ancient semi-natural woodland with Oak <i>Quercus robur</i> coppice.	4,624
Cobbler's Gill	SNCI	3.4	Ancient semi-natural woodland.	4,643
Axeland Croft Shaw, Bannister Shaw & Grayhouse Furze	SNCI	9.9	Ancient semi-natural woodland larger than 5ha and secondary woodland. Supports the nationally uncommon NVC W8 Hornbeam <i>Carpinus betulus</i> woodland variant.	4,684
Burnt Oak Farm	SNCI	40.4	Largely undisturbed with a complex mixture of woodland, grassland, scrub and ponds. Links areas of ancient semi-natural woodland, forming part of a large area of semi-natural habitat. Site recommended by Surrey Amphibian and Reptile group.	4,769
Hare Wood and Lodge Farm Shaw	SNCI	10.6	Ancient semi-natural ghyll woodland, greater than 5ha, ancient mixed plantation.	4,794
Bridges Fields	pSNCI	16.5	NS	73
Bridges Wood	pSNCI	3.74	NS	129
Collins Wood	pSNCI	2.26	NS	835
Bellhatch Wood	pSNCI	2.9	NS	1,131
Kiln Heath	pSNCI	6.61	NS	1,200
Rede Hall Pond	pSNCI	0.67	NS	1,271
Stonelands Wood	pSNCI	0.9	NS	1,871
Murgins Wood	pSNCI	3.3	NS	2,025
Cophall Field	pSNCI	3.8	NS	2,172
Rickett's Wood, nr Charlwood	pSNCI	23.8	NS	2,441
Woods West of Crutchfield Copse 1 North	pSNCI	1.9	NS	2,669
Furzes Field	pSNCI	1	NS	2,918
Collendean Copse	pSNCI	6.4	NS	3,104
West Park Wood	pSNCI	5.9	NS	3,127
Effingham Lane Field	pSNCI	2.3	NS	3,186
Bush House Copse	pSNCI	3.0	NS	3,503

Statutory and Non-statutory Designated Sites within 5 km of the Project Site and European Designated Sites within 20 km of the Project Site				
Leg of Mutton Wood, The Jordans & Jordans Wood	pSNCI	2.35	NS	3,790
The Marl Pond	pSNCI	1.74	NS	3,832
Bakers Wood	pSNCI	41.24	NS	3,853
Benting Wood	pSNCI	17.18	NS	4,004
Domewood	pSNCI	4.94	NS	4,117
Prince of Wales Meadow	pSNCI	2.32	NS	4,187
Wind Hill Field	pSNCI	0.96	NS	4,245
Domewood Meadows	pSNCI	1.89	NS	4,248
Copsley Court Outwood	pSNCI	0.05	NS	4,319
Newdigate Brickworks	pSNCI	2.84	NS	4,380
Lambert's Place Meadow	pSNCI	1.66	NS	4,459
The Plantation	pSNCI	1	NS	4,635
Woodland (West of Brick Field)	pSNCI	0.2	NS	4,751
Nalder's Wood/ Dudlands Copse, Leigh	pSNCI	6.03	NS	4,755
Brick Field	pSNCI	7.65	NS	4,808
The Plantation	pSNCI	6.59	NS	5,030
Biodiversity Opportunity Areas within 2km of the Project Site				
Glover's Wood and Edolph's Copse	BOA - Low Weald	851	Opportunities for significant uplift in CNVI/Ancient Native woodland and hedgerow restoration delivered through Gatwick Greenspace Project/Woodland Trust Initiative	1,285
River Mole (plus tributaries)	BOA - Rivers	2,212	Floodplain grazing marsh enhancement opportunities, potential to extend woodland, opportunities for further heathland restoration.	Within Project site boundary
Gatwick Woods	BOA – Low Weald	133	Lies on clay formation mudstone. Contains a small amount of ancient woodland amongst agricultural land where the opportunities for biodiversity include: woodland management and restoration, education and community engagement, ecological networks, visitor facilities. Species include lesser redpoll <i>Carduelis cabaret</i> and lapwing <i>Vanellus vanellus</i> .	18
Grattons Park	BOA – High Weald	33	Historic park with remnants of wood pasture. Dissected by a major road and to the west bordered by a railway line. Opportunities identified include: grassland management, woodland management, wood-pasture and parkland restoration. Species include common toad <i>Bufo bufo</i> and adder <i>Vipera berus</i> .	Within Project site boundary
Ifield Brook	BOA – Low Weald	247	Links several SNCI, all of which are important for wetland biodiversity. The BOA follows the line of a watercourse, which has potential for in-channel and floodplain enhancement. Species include slow-worm <i>Anguis fragilis</i> , reed bunting <i>Emberiza citrinella</i> .	930

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; pSNCI: Proposed Sites of Nature Conservation Interest; NS: Not Supplied, BOA: Biodiversity Opportunity Areas.

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

European Designated Sites within 30 km of the Project Site, Designated for Bats				
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 [REDACTED] utilises a range of tree roosts in this area of 91A0 Old Sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> 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. A [REDACTED] is also associated with this area of 91A0 Old Sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles. [REDACTED] in the stems of live mature Oak <i>Quercus petraea</i> trees.	29,000

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

European Designated Sites included in road traffic emissions assessment				
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 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 3.2.2. All other records are shown on Figures 3.3.1 to 3.3.6. Any species recorded within the site boundary but without the zone they were recorded in is marked as 0 in the distance within the table. The distances from the 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 3.3.1 to 3.3.6.

Birds

3.3.6 A total of 73 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 3.3.1.

3.3.7 The bird records include eleven 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 19 species of bats were recorded within 10 km of the site boundary 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 Figures 3.3.2a and 3.3.2b.

3.3.10 Common pipistrelle bat was the most recorded species 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 10 km of the Project boundary. 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 the search area may travel into the search area given their dispersal abilities. The species recorded are listed in Table 3.3.1 below and shown on Figure 3.3.3.

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

Other mammals

3.3.14 Three other protected and notable mammal species were recorded within 2 km of the Project boundary (Brown hare, Hedgehog and Harvest mouse). The mammal species recorded are listed in Table 3.3.1 below and shown on Figure 3.3.3.

Herpetofauna

3.3.15 Eight herpetofauna species have been recorded within 2 km of the Project boundary. The species recorded are listed in Table 3.3.1 below and shown on Figure 3.3.4a and 3.3.4b.

3.3.16 Five amphibian species have been recorded within 2 km of the Project boundary including Great crested newt.

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

3.3.18 Three reptile species have been recorded within 2 km of the Project boundary.

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

Fish

- 3.3.20 Three fish species have been recorded within 2 km of the Project boundary. The species recorded are listed in Table 3.3.1 below and shown on Figure 3.3.4a.

Invertebrates

- 3.3.21 A total of 97 invertebrate species have been recorded within 2 km of the Project boundary 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 3.3.5a and 3.3.5b.
- 3.3.22 Of the invertebrate species listed in Table 3.3.1, 31 are listed under Section 41 of the NERC Act (2006) and are UKBAP Species.

Flora

- 3.3.23 Thirty seven plant species have been recorded within 2 km of the Project boundary. The species recorded are listed in Table 3.3.1 below and shown on Figure 3.3.6. Bluebell, which is protected under the WCA was recorded within the Project boundary.

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	2454	SBRC	UKBAP, NERC S41, Bird: Red,
Sparrowhawk	<i>Accipiter nisus</i>	2017	22	SBIC	Bird RedList GB Post2001 NT-B , Bird: Amber
Sedge Warbler	<i>Acrocephalus schoenobaenus</i>	2016	0	SBIC	Bird: Amber
Common Sandpiper	<i>Actitis hypoleucos</i>	2020	Land East of the Railway Line	SBRC	Bird: Amber, IUCN VU
Skylark	<i>Alauda arvensis</i>	2019	4	SBIC	NERC S41, UKBAP, Bird: Red
Kingfisher	<i>Alcedo atthis</i>	2020	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>	2021	Land East of the Railway Line, North West Zone	SBRC	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: Red, IUCN ENbr
Grey Heron	<i>Ardea cinerea</i>	2018	0	SBIC	Bird RedList GB Post2001 NT-B
Little Owl	<i>Athene noctua</i>	2019	81	SBIC	Bern-A2
Tufted Duck	<i>Aythya fuligula</i>	2021	0	SBRC	
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
Goldfinch	<i>Carduelis carduelis</i>	2019	0	SBIC	Bird: Amber
Little Ringed Plover	<i>Charadrius dubius</i>	2021	0	SBRC	WCA1
Ringed Plover	<i>Charadrius hiaticula</i>	2020	0	SBRC	Bird: Red
Greenfinch	<i>Chloris chloris</i>	2013	0	SBIC	Bird RedList GB Post2001 EN-B , 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>	2020	Land East of the Railway Line, North West Zone	SBRC	Bird: Amber,
Woodpigeon	<i>Columba palumbas</i>	2019	0	SBIC	Bird: Amber
Rook	<i>Corvus frugilegus</i>	2016	0	SBIC	Bird RedList GB Post2001 NT-B , Bird: Amber
Cuckoo	<i>Cuculus canorus</i>	2017	North West Zone	SBRC and Gatwick's Annual Biodiversity Review 2018	NERC S41, UKBAP, Bird: Red,
Whitethroat	<i>Curruca communis</i>	2019	0	SBIC	Bird: Amber
Mute Swan	<i>Cygnus olor</i>	2015	0	SBRC	Bird: Amber

Summary of Protected and Notable Species Recorded within 2 km and 10 km of the Project Site.					
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: Red, IUCN VUbr
Greater Spotted Woodpecker	<i>Dendrocopos major</i>	2019	0	SBIC	Bern-A2
Lesser Spotted Woodpecker	<i>Dendrocopos minor</i>	2009	0	SBRC	NERC S41, UKBAP, Bird: Red, IUCN ENbr
Little Egret	<i>Egretta garzetta</i>	2013	0	SBIC	NERC S41, UKBAP, Bird: Red
Yellowhammer	<i>Emberiza citrinella</i>	2011	0	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>	2020		SBIC	IUCN VUbr, Bird: Amber
Coot	<i>Fulica atra</i>	2019	0	SBIC	Bird RedList GB Post2001 NT-B , Bird RedList GB Post2001 NT-NB
Common Snipe	<i>Gallinago gallinago</i>	2018	Land East of the Railway Line, North West Zone	Gatwick's Annual Biodiversity Review 2018	Bird: Amber
Moorhen	<i>Gallinula chloropus</i>	2016	5	SBIC	Bird RedList GB Post2001 VU-B , 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 Woowhiterhd, 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
Pied Wagtail	<i>Motacilla alba yarrellii</i>	2019	0	SBIC	Bern-A2
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: Amber, IUCN NTbr
Curlew	<i>Numenius arquata</i>	2010	1881.580	SBRC	NERC S41, UKBAP, GRL NT, Bird: Red, IUCN EN
Great Tit	<i>Parus major</i>	2017	0	SBIC	Bern-A2
House Sparrow	<i>Passer domesticus</i>	2017	0	SBIC	NERC S41, UKBAP, Bird: Red
Black Redstart	<i>Phoenicurus ochruros</i>	2012	0	SBRC	WCA1, Bird: Amber, 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

Summary of Protected and Notable Species Recorded within 2 km and 10 km of the Project Site.					
Green Woodpecker	<i>Picus viridis</i>	2019	0	SBIC	Bern-A2
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
Dunnock	<i>Prunella modularis</i>	2019	Land East of the Railway Line, North West Zone	SBIC	Bird: Amber
Bullfinch	<i>Pyrrhula pyrrhula</i>	2019	Land East of the Railway Line, North West Zone	SBIC	Bird: Amber
Firecrest	<i>Regulus ignicapilla</i>	2020	1324	SBRC	WCA1
Goldcrest	<i>Regulus regulus</i>	2019	2024	SBIC	
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
Nuthatch	<i>Sitta europaea</i>	2019	0	SBIC	Bern-A2
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>	2019	Land East of the Railway Line, North West Zone	SBIC	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
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
Wren	<i>Troglodytes troglodytes</i>	2019	0	SBIC	Bird: Amber
Redwing	<i>Turdus iliacus</i>	2018	Land East of the Railway Line, North West Zone	Gatwick's Annual Biodiversity Review 2018	WCA1, IUCN CEbr, BOCC Amber
Song Thrush (clarkei)	<i>Turdus philomelos clarkei</i>	2015	0	SBIC	Bird: Amber
Song Thrush	<i>Turdus philomelos</i>	2019	Land East of the Railway Line, North West Zone	SBIC	UKBAP, NERC S41, Bird: Red
Fieldfare	<i>Turdus pilaris</i>	2019	Land East of the Railway Line, North West Zone	SBIC	WCA1, Bird: Red, IUCN CR(PE)br,
Mistle Thrush	<i>Turdus viscivorus</i>	2019	Land East of the Railway Line, North West Zone	SBIC	Bird: Red, IUCN VUbr
Barn Owl	<i>Tyto alba</i>	2018	0	SBRC	WCA1
Mammals (Bats)					
Western Barbastelle	<i>Barbastella barbastellus</i>	2021	■	SBRC	Hab Reg Sch2, WCA5, NERC S41, UKBAP, GRL NT
Bat sp.	<i>Chiroptera</i>	2021	0	SBRC	Hab Reg Sch2, WCA5, NERC S41, UKBAP, GRL NT
Serotine	<i>Eptesicus serotinus</i>	2020	Y Lagoon	SBIC	Hab Reg Sch2, WCA5
Myotis Bat	<i>Myotis</i>	2019	0	SBRC	Hab Reg Sch2, WCA5, NERC S41, UKBAP, GRL NT

Summary of Protected and Notable Species Recorded within 2 km and 10 km of the Project Site.					
Alcathoe Bat	<i>Myotis alcathoe</i>	2016		SBIC	Hab Reg Sch2, WCA5
Bechstein's Bat	<i>Myotis bechsteinii</i>	2021	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>	2021	0	SBRC	Hab Reg Sch2, WCA5
Whiskered Bat	<i>Myotis mystacinus</i>	2018		SBRC and Gatwick's Annual Biodiversity Review 2018	Hab Reg Sch2, WCA5
Natterer's Bat	<i>Myotis nattereri</i>	2021	0	SBRC	Hab Reg Sch2, WCA5
Nyctalus Bat species	<i>Nyctalus sp.</i>	2019		SBIC	Hab Reg Sch2, WCA5
Lesser Noctule	<i>Nyctalus leisleri</i>	2019		SBIC	Hab Reg Sch2, WCA5
Noctule Bat	<i>Nyctalus noctula</i>	2020		SBIC	Hab Reg Sch2, WCA5, NERC S41, UKBAP
Pipistrelle Bat species	<i>Pipistrellus sp.</i>	2021	0	SBRC	Hab Reg Sch2, NERC S41, WCA5, UKBAP
Nathusius's Pipistrelle	<i>Pipistrellus nathusii</i>	2019	0	SBRC	Hab Reg Sch2, WCA5
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	2021	0	SBRC	Hab Reg Sch2, NERC S41, WCA5
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	2021	0	SBRC	Hab Reg Sch2, WCA5, NERC S41, UKBAP
Long-eared sp.	<i>Plecotus</i>	2021	0	SBRC	Hab Reg Sch2, WCA5, NERC S41, UKBAP
Brown Long-eared Bat	<i>Plecotus auritus</i>	2022		SBIC	Hab Reg Sch2, WCA5, NERC S41, UKBAP
Mammals					
West European Hedgehog	<i>Erinaceus europaeus</i>	2021	0	SBRC	NERC S41, UKBAP
Brown Hare	<i>Lepus europaeus</i>	2021	0	SBRC	NERC S41, UKBAP
Eurasian Otter	<i>Lutra lutra</i>	2019	0	SBIC	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>	2018	0	SBRC	NERC S41, UKBAP
Hazel Dormouse	<i>Muscardinus avellanarius</i>	2021	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>	2020	Land East of the Railway Line, North West Zone	SBRC	WCA5
Great Crested Newt	<i>Triturus cristatus</i>	2019	Pond 3, Pond 4, Charlwood 1	SBRC	Hab Reg Sch2, WCA5, NERC S41,
Fish					
Bullhead	<i>Cottus gobio</i>	2021	0	SBRC	Sx Rare
Brown/Sea Trout	<i>Salmo trutta</i>	2016	0	SBRC	NERC S41, UKBAP

Summary of Protected and Notable Species Recorded within 2 km and 10 km of the Project Site.					
Brown Trout	<i>Salmo trutta subsp. fario</i>	2016	0	SBRC	NERC S41, UKBAP
Reptiles					
Slow-worm	<i>Anguis fragilis</i>	2020	Land East of the Railway Line	SBRC	WCA5, NERC S41, UKBAP
Grass snake	<i>Natrix helvetica</i>	2019	Land East of the Railway Line, North West Zone	SBIC	WCA5, NERC S41, UKBAP
Common lizard	<i>Zootoca vivipara</i>	2019	1932	SBIC	WCA5, NERC S41, UKBAP
Invertebrates					
Knot Grass	<i>Acronicta rumicis</i>	2016	0	SBRC	NERC S41, UKBAP
A Beetle	<i>Agabus</i>	2018	0	SBIC and Gatwick's Annual Biodiversity Review 2018	NNB
A ground beetle	<i>Anthraxus consputus</i>	2018	Pond 5	SBRC and Gatwick's Annual Biodiversity Review 2018	NNB, NS
Purple Emperor	<i>Apatura iris</i>	2018	North West Zone	SBIC	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 centrargo</i>	2017	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	0	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	341	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>	2020	0	SBRC	NERC S41, UKBAP, Sx Rare
A True Fly	<i>Dicranomyia chorea</i>	2014	225	SBIC	RedList GB Pre94 R
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

Summary of Protected and Notable Species Recorded within 2 km and 10 km of the Project Site.					
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
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	25	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>	2019	Grass slope adjacent to the River Mole, south-west of Brockley Wood	SBRC	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>Lythraria 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	0	SBRC	NN, Sx Rare
Wainscot Neb	<i>Monochroa palustrellus</i>	2018	0	SBRC	NNB
Variegated 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

Summary of Protected and Notable Species Recorded within 2 km and 10 km of the Project Site.					
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
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
Continental Swallowtail	<i>Papilio machaon gorganus</i>	2021	27	SBRC	
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	341	SBRC	NNA, Sx Rare
A Beetle	<i>Polydrusus (Eustolus) flavipes</i>	2013	183	SBRC	NNB, Sx Rare
Grizzled Skipper	<i>Pyrgus malvae</i>	2021	North West Zone	SBRC	NERC S41, UKBAP, IUCN VU
Black-headed Cardinal Beetle	<i>Pyrochroa coccinea</i>	2021	0	SBRC	NNB, Sx Rare
A Beetle	<i>Rhantus (Rhantus) frontalis</i>	2011	0	SBRC	NNB, NS, Sx Rare
Roesel's Bush Cricket	<i>Roeseliana roeselii</i>	2021	27	SBRC	
A Beetle	<i>Rhinocyllus conicus</i>	2013	0	SBRC	NNA, Sx Rare
A True Fly	<i>Sarcophaga villeneuvei</i>	2018	143	SBIC	IUCN RA, Sx Rare
White-letter Hairstreak	<i>Satyrrium w-album</i>	2019	Land East of the Railway Line, North West Zone	SBRC	WCA5, NERC S41, UKBAP, IUCN EN, Sx Rare
House Windowfly	<i>Scenopinus fenestralis</i>	2018	45	SBRC	NS
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
Swollen-thighed Blood Bee	<i>Sphecodes crassus</i>	2019	0	SBRC	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
Banded Dark Bee	<i>Stelis punctulatissima</i>	2020	1600	SBIC	NNB
A Beetle	<i>Staphylinus dimidiaticornis</i>	2017	1991	SBRC	Sx
Long-horned General	<i>Stratiomys longicornis</i>	2015	0	SBRC	NS
Common Darter	<i>Sympetrum striolatum</i>	2017	0	SBRC	RedList GB Post2001 DD
A Beetle	<i>Synchita humeralis</i>	2013	0	SBRC	NNB, NS, Sx Rare
Brown Hairstreak	<i>Thecla betulae</i>	2021	Land East of the Railway Line, North West Zone	SBRC	WCA5, NERC S41, UKBAP, IUNC VU, Sx Rare
Feathered Gothic	<i>Tholera decimalis</i>	2013	0	SBRC	NERC S41, UKBAP, Sx Rare

Summary of Protected and Notable Species Recorded within 2 km and 10 km of the Project Site.					
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
Hornet Hoverfly	<i>Volucella zonaria</i>	2019	0	SBRC	RedList GB Pre94 R
Oak Hook-tip	<i>Watsonalla binaria</i>	2018	0	SBRC	NERC S41, UKBAP
A Spider	<i>Zilla diodia</i>	2013	0	SBRC	Sx Rare
Flora					
Blushing Wood Mushroom	<i>Agaricus sylvaticus</i>	2019	1769	SBRC	Sx Rare
Rooting Bolete	<i>Boletus radicans</i>	2016	1885	SBRC	Sx Rare
Quaking-grass	<i>Briza media</i>	2014	0	SBRC	Sx Rare
Box	<i>Buxus sempervirens</i>	2013	437	SBRC	Sx Rare
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
Spanish Frillwort	<i>Fossombronia caespitiformis</i>	2019	27	SBRC	Sx Rare
Wild Strawberry	<i>Fragaria vesca</i>	2017	422	SBRC	IUCN NT
A Fungus	<i>Ganoderma resinaceum</i>	2018	1825	SBRC	Sx Rare
Hawkweed	<i>Hieracium calcaricola</i>	2014	2129	SBRC	Sx Rare
Bluebell	<i>Hyacinthoides non-scripta</i>	2021	0	SBRC	WCA8
Spangle Waxcap	<i>Hygrocybe insipida</i>	2019	1654	SBRC	Sx Rare
Crimson Wax-Cap	<i>Hygrocybe punicea</i>	2015	1776	SBRC	Sx Rare
False Chanterelle	<i>Hygrophoropsis aurantiaca</i>	2016	0	SBRC	Sx Rare
Bearded Milkcap	<i>Lactarius pubescens</i>	2019	1595	SBRC	WCA8
Bitter-vetch	<i>Lathyrus linifolius</i>	2014	693	SBIC	RedList Eng Post2001 NT
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
Alder Bracket	<i>Mensularia radiata</i>	2018	1370	SBRC	Sx Rare
Corn Mint	<i>Mentha arvensis</i>	2014	0	SBRC	IUCN NT
A Lichen	<i>Nectriopsis rubefaciens</i>	2016	0	SBRC	NR
Wood-sorrel	<i>Oxalis acetosella</i>	2017	0	SBRC	IUCN NT
Oak Toothcrust	<i>Radulomyces molaris</i>	2013	27	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	1761	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
Ragged-Robin	<i>Silene flos-cuculi</i>	2018	0	SBRC	RedList Eng Post2001 NT
Rusty Crust	<i>Skeletocutis amorpha</i>	2013	27	SBRC	Sx Rare

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

Devil's-bit Scabious	<i>Succisa pratensis</i>	2013	693	SBRC	IUCN NT
Marble Screw-moss	<i>Syntrichia papillosa</i>	2019	0	SBRC	RedList Eng Post2001 NT
Leafy Brain	<i>Tremella foliacea</i>	2017	0	SBRC	Sx Rare
White Knight	<i>Tricholoma album</i>	2013	27	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 Scheule 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 designated sites and 71 non-statutory designated sites within the search area. They consist of two SACs, one SPA, four SSSIs, seven LNRs, three CPs, 20 LWS's, and one DRV. One LWS was within the Project boundary. Two statutory sites of note for their bat populations were also identified beyond the search area, but within 30km of the site.
- 4.1.2 The desk study also identified a number of records of protected and notable species. Records were provided for 19 bat species within 10 km of the site.
- 4.1.3 Two Otter records were provided within the 10 km boundary. 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 37 plant species were recorded within 2 km of the site.
- 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 boundary.

5 References

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6 Glossary

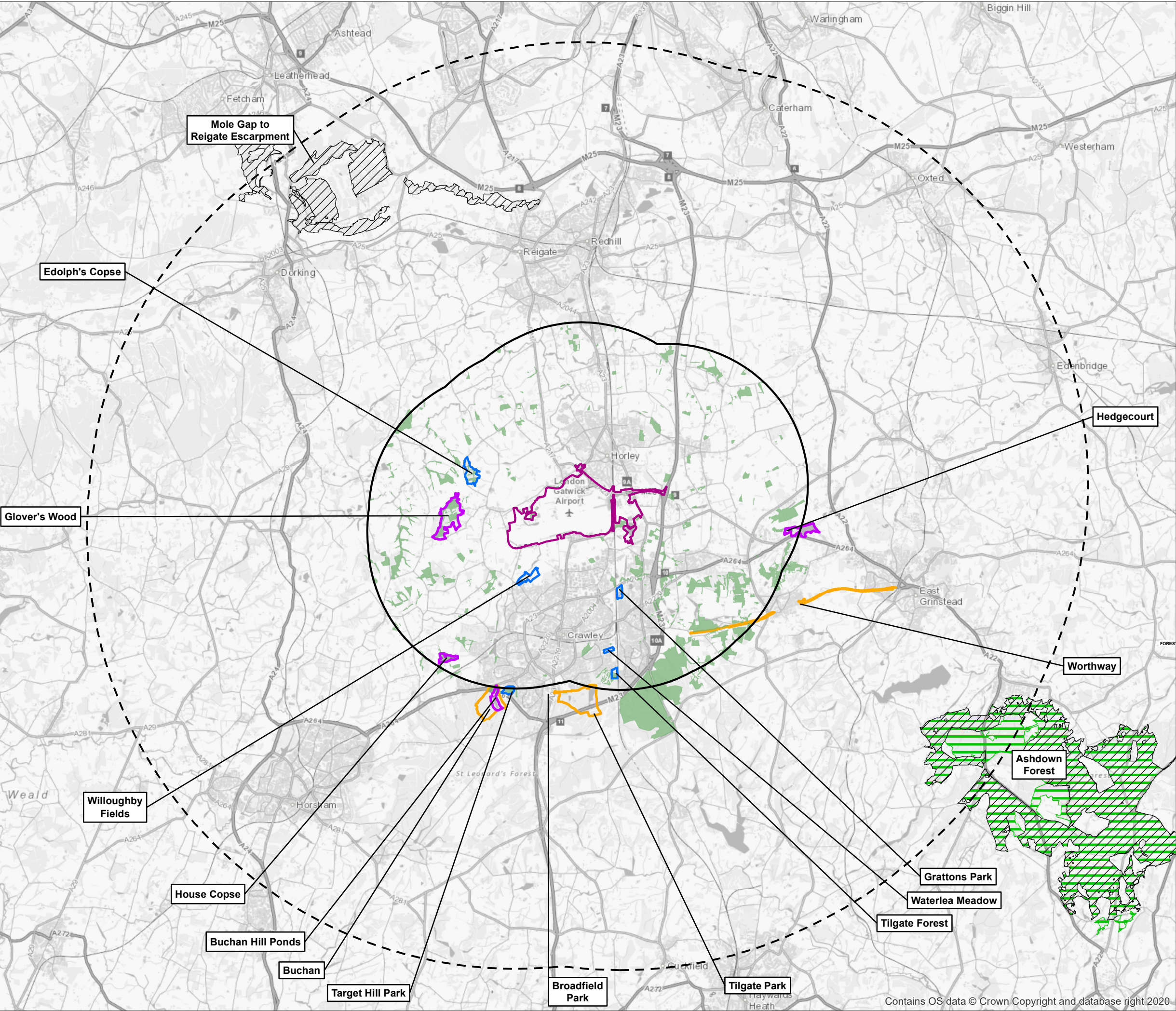
6.1 Glossary of terms

Table 6.1.1: Glossary of Terms

Term	Description
BOA	Biodiversity Opportunity Area
CP	Country Park
CIEEM	Chartered Institute of Ecology and Environmental Management
DRV	Designated Road Verge
EIA	Environmental Impact Assessment
ES	Environmental Statement
GAL	Gatwick Airport Limited
JNCC	Joint Nature Conservation Committee
LNR	Local Nature Reserve
LWSs	Local Wildlife Site
NERC	Natural Environment and Rural Communities Act
NNRs	National Nature Reserve
PEIR	Preliminary Environmental Information Report
pSNCIs	Proposed Site of Nature Conservation Interest
SAC	Special Area of Conservation
SNCI	Site of Nature Conservation Importance
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SxBRC	Sussex Biodiversity Records Centre
UKFS	United Kingdom Forestry Standard

[Annex 1](#)

[Figures](#)



- KEY
- Project Site Boundary (ES)
 - 5km buffer from Project Site Boundary
 - 15km buffer from Project Site Boundary
 - Special Area of Conservation
 - Special Protection Area
 - Site of Special Scientific Interest
 - Local Nature Reserve
 - Ancient Woodland
 - Country Park

Source:
Natural England

DOCUMENT

Environmental Statement

DRAWING TITLE

Statutory Designated Sites

DATE

July 2023

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 3.2.1	For ES Issue
	DRAWN BY	PM / CHECKED BY
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SCALE @ A3 1:130,000

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Source:
Sussex Biodiversity Record Centre
Surrey Wildlife Trust

DOCUMENT

Environmental Statement

DRAWING TITLE

Non-statutory Designated Sites

DATE _____

July 2023

ORIENTATION

DRAWING NO.	R
FIGURE 3.2.2	

DRAWN BY	PM / CHECKED BY
MP	EC

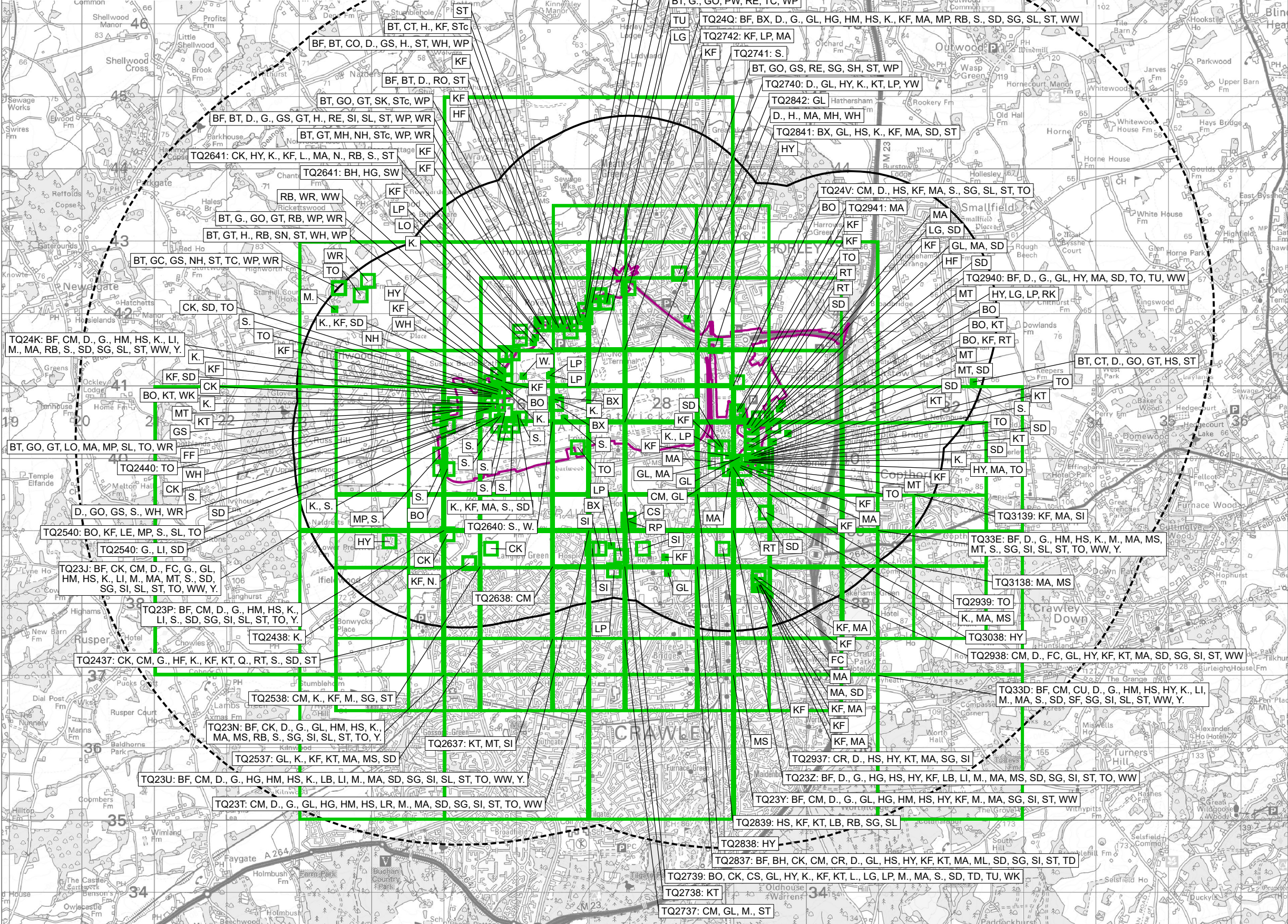
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Code	Common Name	Code	Common Name	Code	Common Name	Code	Common Name	Code	Common Name
BF	Bullfinch	GC	Goldcrest	LE	Long-eared Owl	RB	Reed Bunting	SW	Sedge Warbler
BH	Black-headed Gull	GL	Grey Wagtail	LG	Little Grebe	RE	Redwing	TC	Treecreeper
BO	Barn Owl	GO	Goldfinch	LI	Linnet	RK	Redshank	TD	Turtle Dove
BT	Blue Tit	GR	Greenfinch	LO	Little Owl	RO	Rook	TO	Tawny Owl
BX	Black Redstart	GS	Great Spotted Woodpecker	LP	Little Ringed Plover	RP	Ringed Plover	TU	Tufted Duck
CK	Cuckoo	GT	Great Tit	LR	Lesser Redpoll	RT	Redstart	W	Wheatear
CM	Common Gull	H	Grey Heron	M	Mistle Thrush	S	Skylark	WH	Whitethroat
CO	Coot	HF	Hawfinch	MA	Mallard	SD	Stock Dove	WK	Woodcock
CR	Crossbill	HG	Herring Gull	MH	Moorhen	SF	Spotted Flycatcher	WP	Woodpigeon
CS	Common Sandpiper	HM	House Martin	ML	Merlin	SG	Starling	WR	Wren
CT	Coal Tit	HS	House Sparrow	MP	Meadow Pipit	SH	Sparrowhawk	WVW	Willow Warbler
CU	Curlew	HY	Hobby	MS	Mute Swan	SI	Swift	Y	Yellowhammer
D	Dunnock	K	Kestrel	MT	Marsh Tit	SK	Siskin	YW	Yellow Wagtail
ET	Little Egret	KF	Kingfisher	N	Nightingale	SL	Swallow		
FC	Firecrest	KT	Red Kite	NH	Nuthatch	SN	Snipe		
FF	Fieldfare	L	Lapwing	PW	Pied Wagtail	ST	Song Thrush		
G	Green Woodpecker	LB	Lesser Black-backed Gull	Q	Quail	STc	Song Thrush (clarkel)		



- KEY
- Project Site Boundary (ES)
 - 2km buffer from Project Site Boundary
 - 5km buffer from Project Site Boundary
 - Bird Record

Source:
Sussex Biodiversity Record Centre 2022
Surrey Wildlife Trust 2022

DOCUMENT

Environmental Statement

DRAWING TITLE

Bird Records

DATE

July 2023

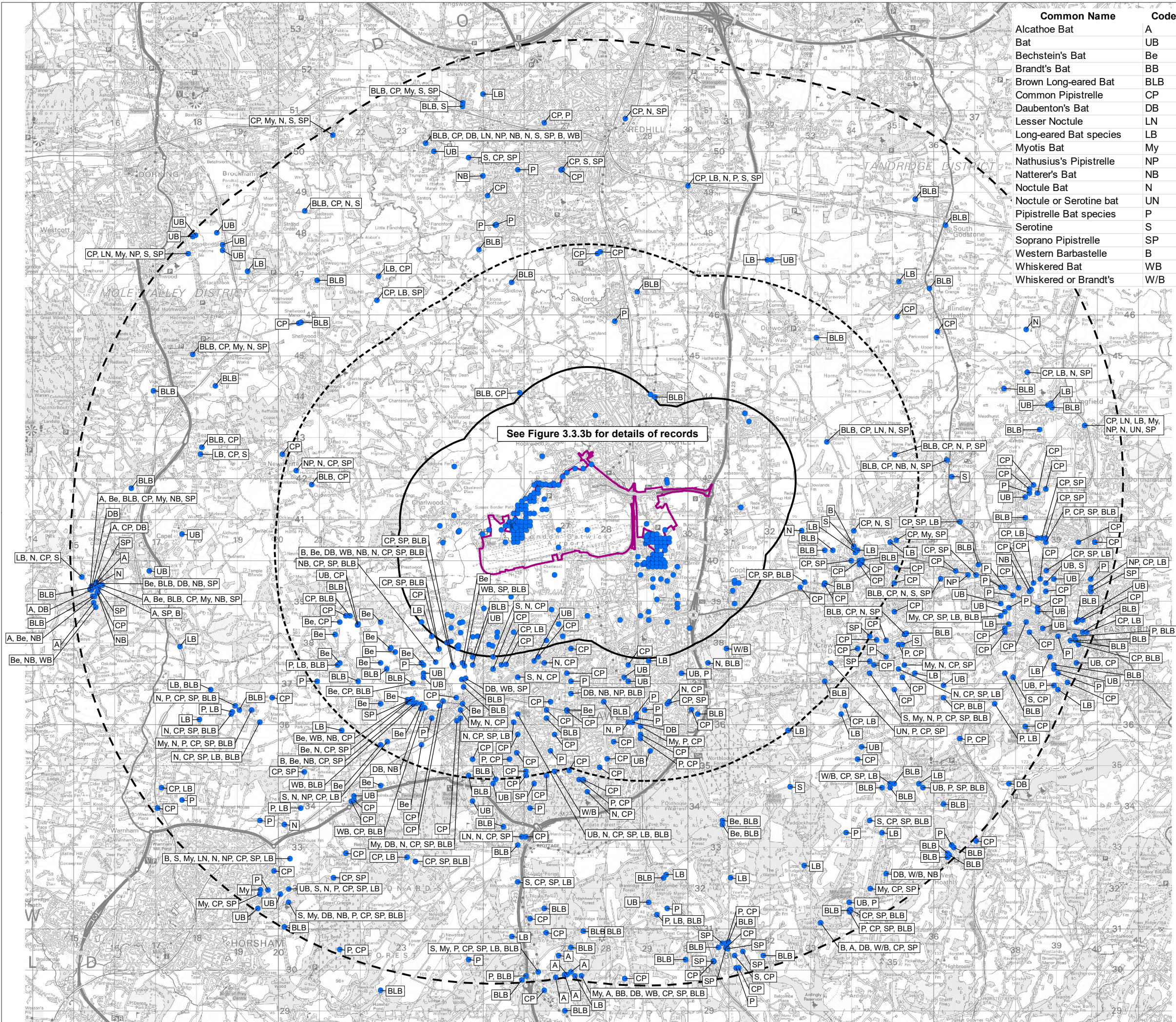
ORIENTATION	DRAWING NO.	REVISION
	FIGURE 3.3.1	For ES Issue
	DRAWN BY	PM / CHECKED BY
	MP	LM

SCALE @ A3 1:55,000

0 500 1,000 2,000 m

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Common Name	Code
Alcathoe Bat	A
Bat	UB
Bechstein's Bat	Be
Brandt's Bat	BB
Brown Long-eared Bat	BLB
Common Pipistrelle	CP
Daubenton's Bat	DB
Lesser Noctule	LN
Long-eared Bat species	LB
Myotis Bat	My
Nathusius's Pipistrelle	NP
Natterer's Bat	NB
Noctule Bat	N
Noctule or Serotine bat	UN
Pipistrelle Bat species	P
Serotine	S
Soprano Pipistrelle	SP
Western Barbastelle	B
Whiskered Bat	WB
Whiskered or Brandt's	W/B



- KEY
- Project Site Boundary (ES)
 - 2km buffer from Project Site Boundary
 - 5km buffer from Project Site Boundary
 - 10km buffer from Project Site Boundary
 - Bat Record

Source:
Sussex Biodiversity Record Centre 2022
Surrey Wildlife Trust 2022

DOCUMENT

Environmental Statement

DRAWING TITLE

Bat Records

DATE

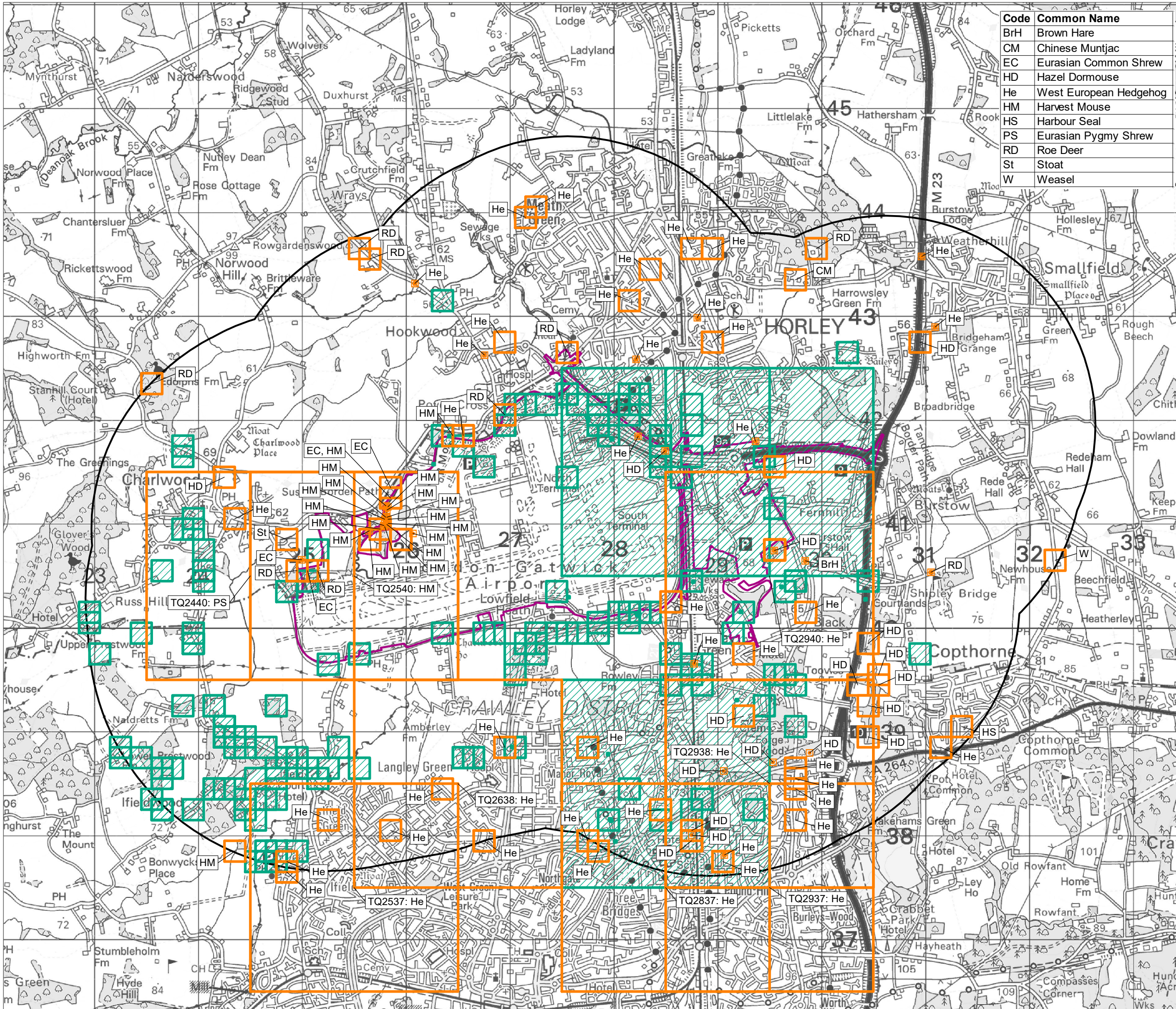
July 2023

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 3.3.3a	For ES Issue
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Code	Common Name
BrH	Brown Hare
CM	Chinese Muntjac
EC	Eurasian Common Shrew
HD	Hazel Dormouse
He	West European Hedgehog
HM	Harvest Mouse
HS	Harbour Seal
PS	Eurasian Pygmy Shrew
RD	Roe Deer
St	Stoat
W	Weasel

KEY

Project Site Boundary (ES)

2km buffer from Project Site Boundary

Mammal Records

Rabbit Records

Source:
Sussex Biodiversity Record Centre 2022
Surrey Wildlife Trust 2022

DOCUMENT

Environmental Statement

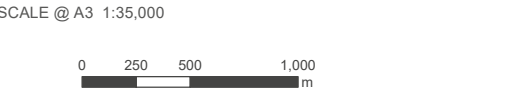
DRAWING TITLE

Otter, Dormouse and
Other Mammal Records

DATE

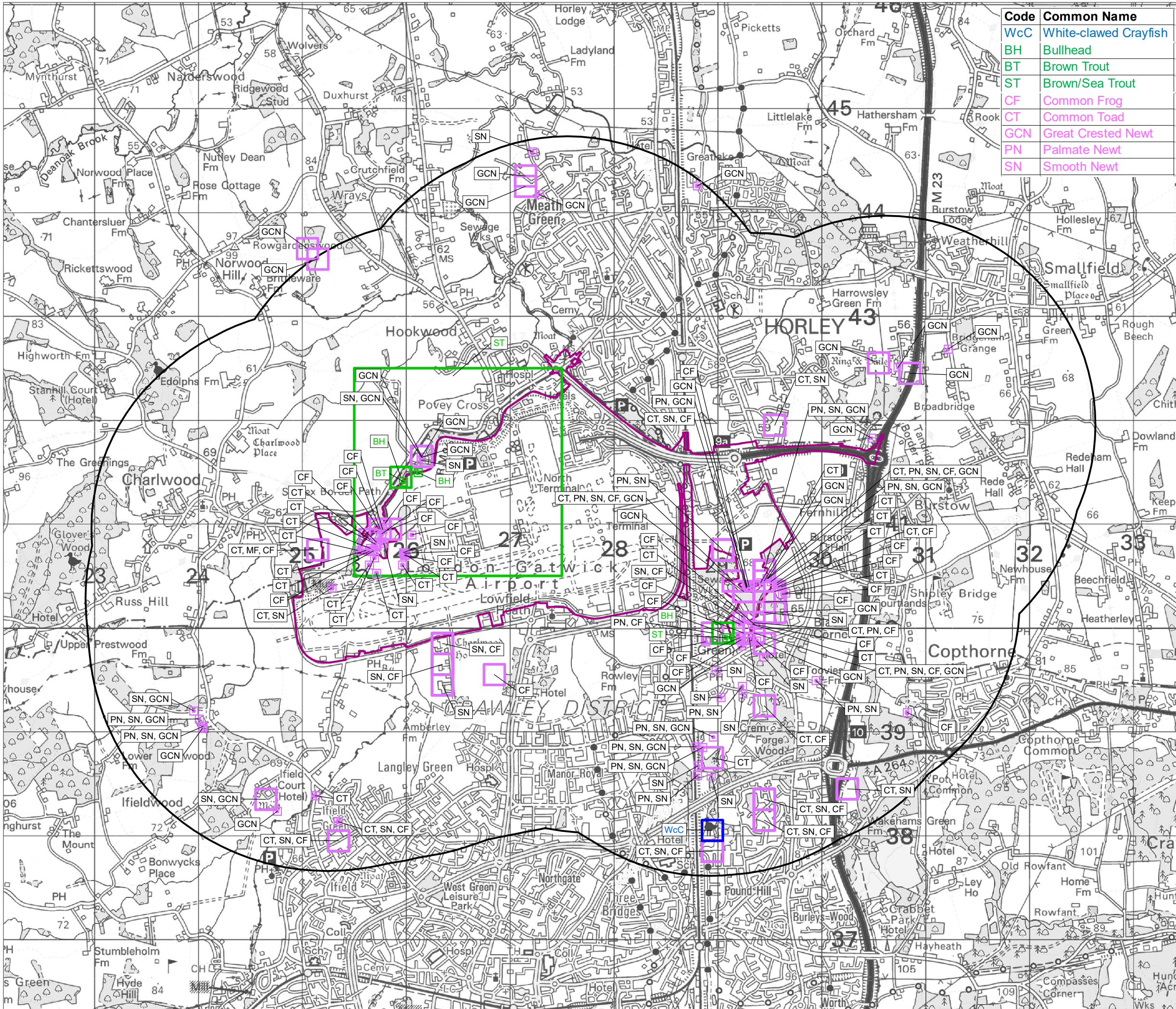
July 2023

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 3.3.3	For ES Issue
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Code	Common Name
WcC	White-clawed Crayfish
BH	Bullhead
BT	Brown Trout
ST	Brown/Sea Trout
CF	Common Frog
CT	Common Toad
GCN	Great Crested Newt
PN	Palmate Newt
SN	Smooth Newt

KEY

- Project Site Boundary (ES)
- 2km buffer from Project Site Boundary
- Amphibian Records
- Fish Records
- Crustacean Records

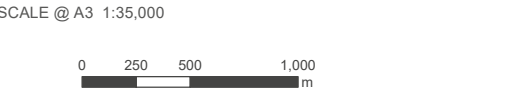
Source:
Sussex Biodiversity Record Centre 2022
Surrey Wildlife Trust 2022

DOCUMENT
Environmental Statement

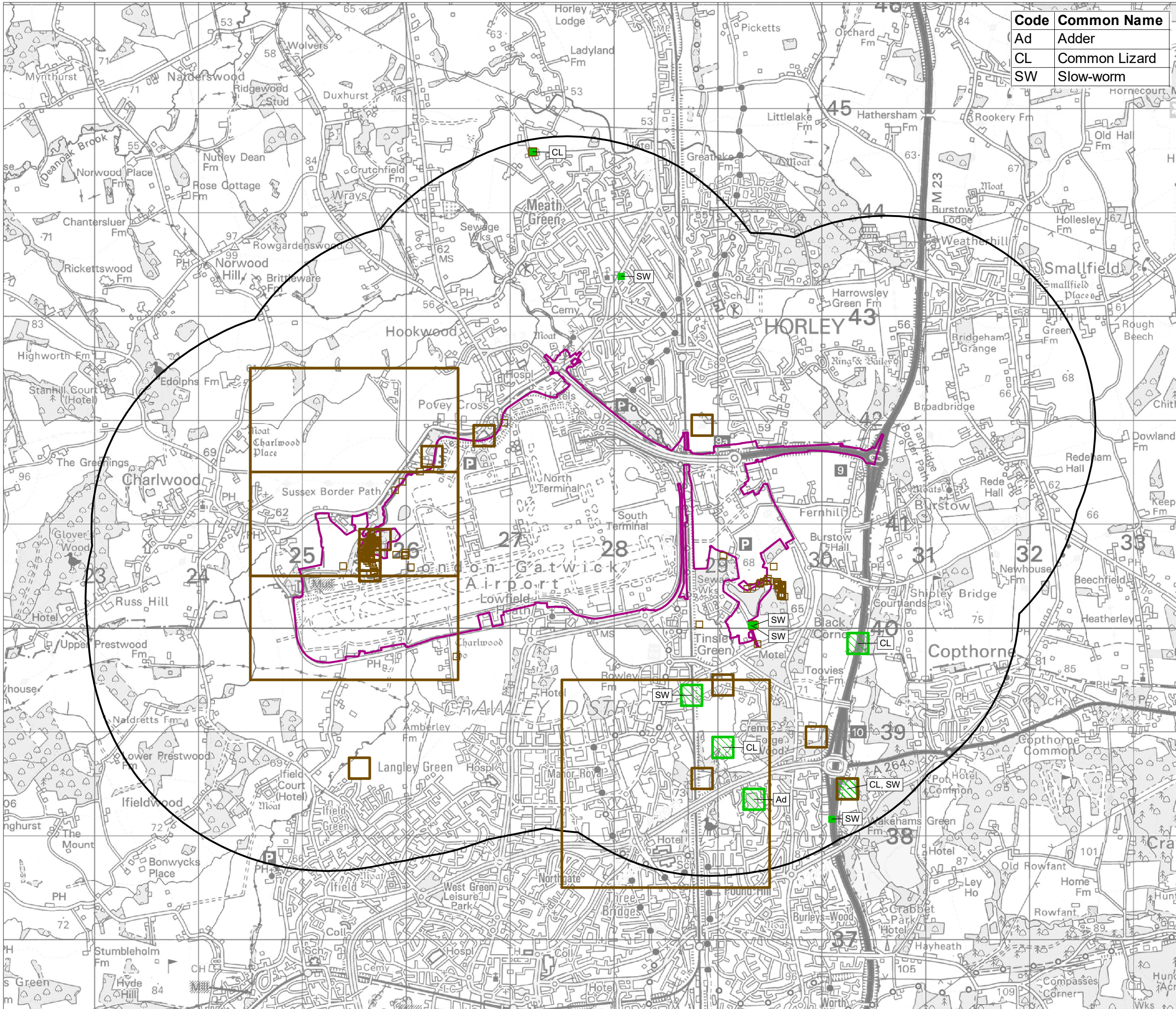
DRAWING TITLE
Fish, Crustacean and Amphibian Records

DATE
July 2023

ORIENTATION 	DRAWING NO. FIGURE 3.3.4a	REVISION For ES Issue
	DRAWN BY CR	PM / CHECKED BY LM



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Code	Common Name
Ad	Adder
CL	Common Lizard
SW	Slow-worm



- KEY
- Project Site Boundary (ES)
 - 2km buffer from Project Site Boundary
 - Grass Snake Records
 - Other Reptile Records

Source:
Sussex Biodiversity Record Centre 2022
Surrey Wildlife Trust 2022

DOCUMENT
Environmental Statement

DRAWING TITLE
Reptile Records

DATE
July 2023

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 3.3.4b	For ES Issue
DRAWN BY CR		PM / CHECKED BY LM

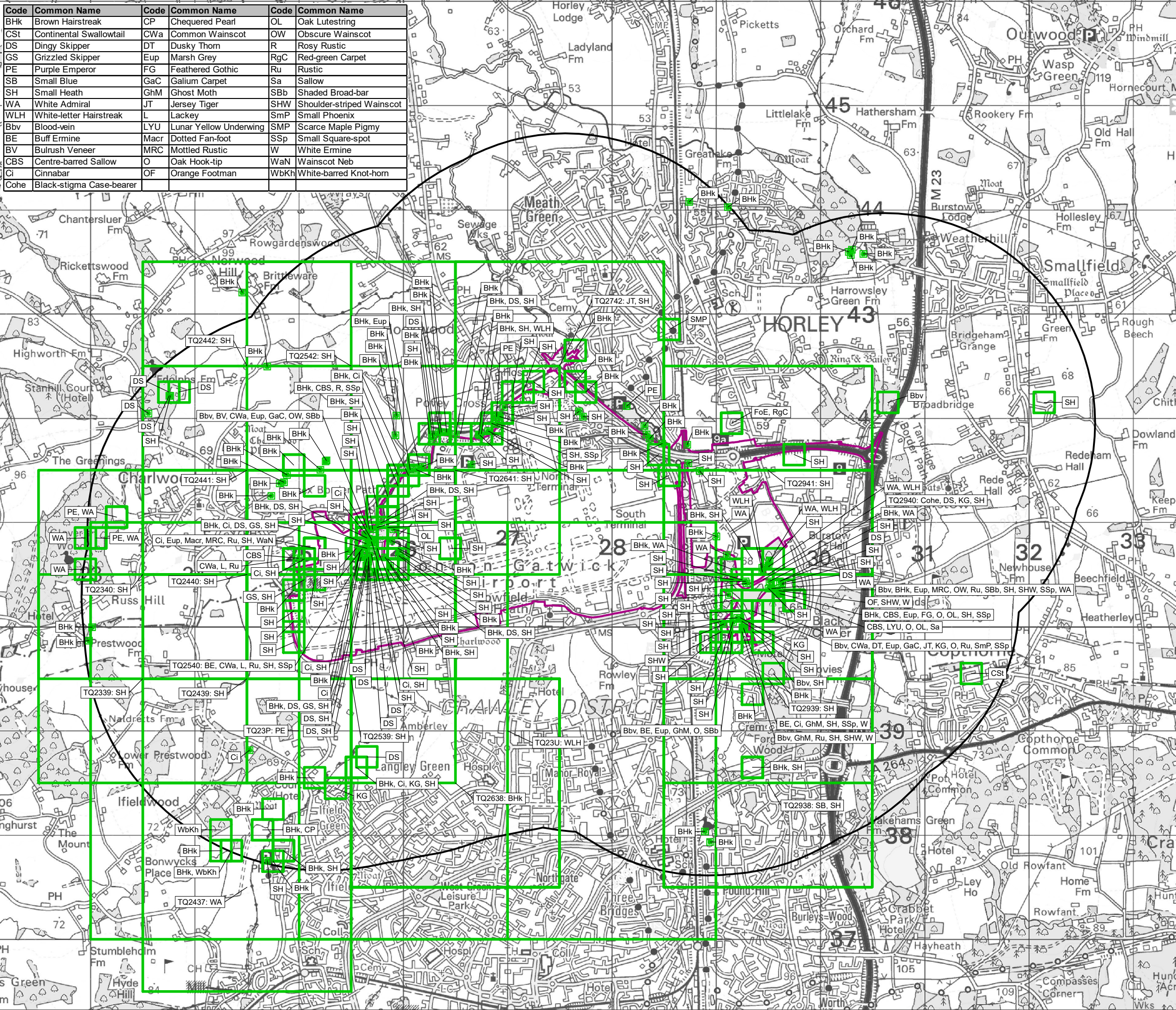
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Code	Common Name	Code	Common Name	Code	Common Name
BHk	Brown Hairstreak	CP	Chequered Pearl	OL	Oak Lutestring
CSt	Continental Swallowtail	CWa	Common Wainscot	OW	Obscure Wainscot
DS	Dingy Skipper	DT	Dusky Thorn	R	Rosy Rustic
GS	Grizzled Skipper	Eup	Marsh Grey	RgC	Red-green Carpet
PE	Purple Emperor	FG	Feathered Gothic	Ru	Rustic
SB	Small Blue	GaC	Galium Carpet	Sa	Sallow
SH	Small Heath	GhM	Ghost Moth	SBb	Shaded Broad-bar
WA	White Admiral	JT	Jersey Tiger	SHW	Shoulder-striped Wainscot
WLH	White-letter Hairstreak	L	Lackey	SmP	Small Phoenix
Bbv	Blood-vein	LYU	Lunar Yellow Underwing	SMP	Scarce Maple Pigmy
BE	Buff Ermine	Macr	Dotted Fan-foot	SSp	Small Square-spot
BV	Bulrush Veneer	MRC	Mottled Rustic	W	White Ermine
CBS	Centre-barred Sallow	O	Oak Hook-tip	WaN	Wainscot Neb
Ci	Cinnabar	OF	Orange Footman	WbKh	White-barred Knot-horn
Cohe	Black-stigma Case-bearer				



- KEY
- Project Site Boundary (ES)
 - 2km buffer from Project Site Boundary
 - Butterfly and Moth Records

Source:
Sussex Biodiversity Record Centre 2022
Surrey Wildlife Trust 2022

DOCUMENT

Environmental Statement

DRAWING TITLE

Invertebrate Records -
Butterflies and Moths

DATE

July 2023

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 3.3.5a	For ES Issue
	DRAWN BY	PM / CHECKED BY
	MP	LM

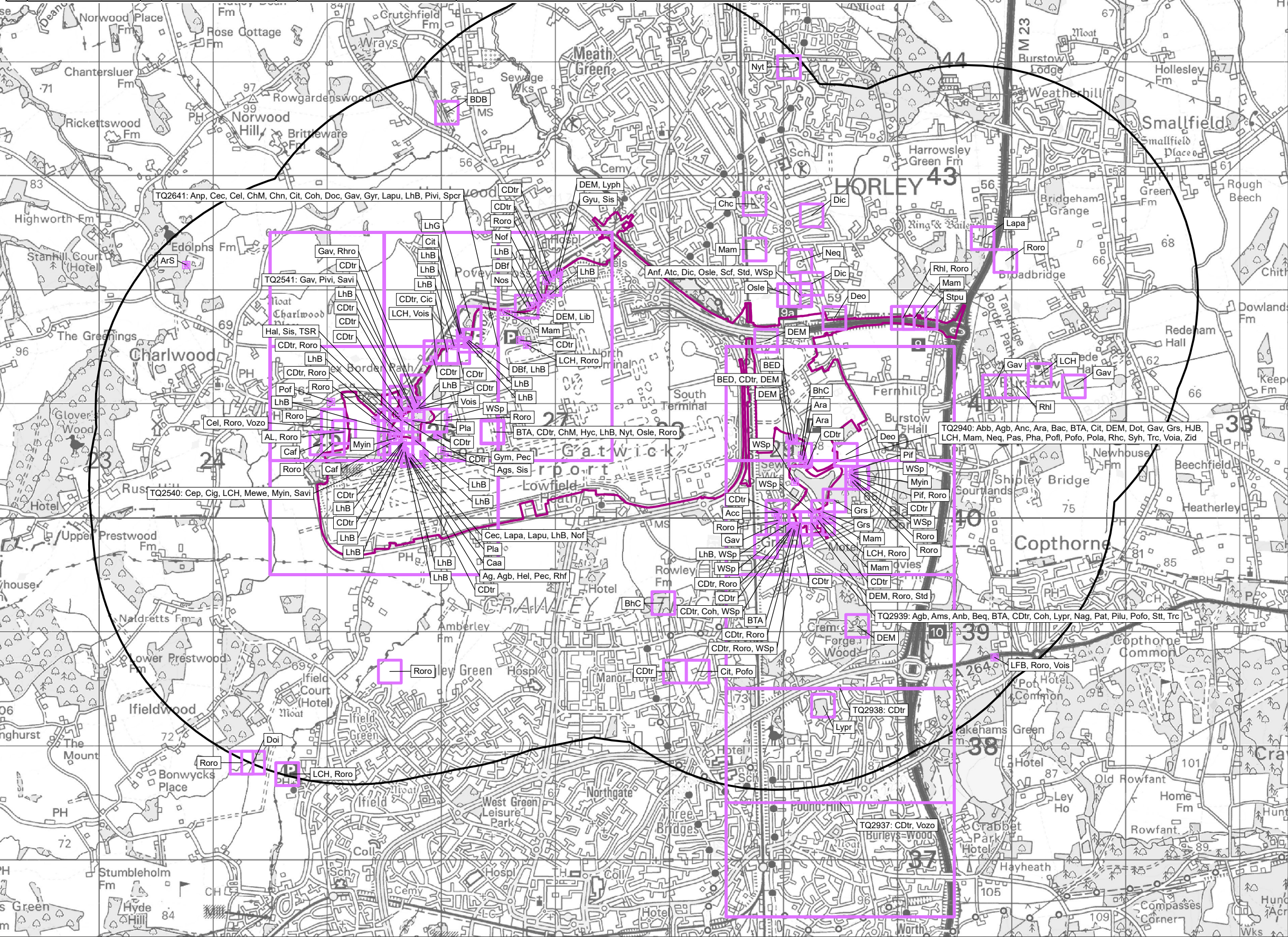
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Code	Common Name	Code	Common Name	Code	Common Name	Code	Common Name	Code	Common Name	Code	Common Name
Abb	A Beetle - Abdera bifexuosa	Beq	Scarce Four-dot Pin-palp	DEM	Downy Emerald	Lapu	Ridge-cheeked Furrow Bee	Pas	A Spider - Parasteatoda similans	Sav	A True Fly - Sarcophaga villeneuvei
Acc	A True Fly - Acinia comiculata	BhC	Black-headed Cardinal Beetle	Deo	A True Bug - Deraeocoris (Deraeocoris) olivaceus	LCH	Long-winged Cone-head	Pat	A Spider - Pardosa tenuipes	Scf	House Windowfly
Ag	A Beetle - Agabus	BTA	Brown Tree Ant	Dic	A True Fly - Dicranomyia chorea	LFB	Loosestrife Flea Beetle	Pec	A Beetle - Peltodytes caesus	Sis	A True Bug - Sigara (Sigara) striata
Agb	A Beetle - Agabus bipustulatus	Caa	A True Fly - Callicera aurata	Doc	A Beetle - Donacia clavipes	LHb	Long-horned Bee	Pha	A Spider - Philodromus albidus	Spcr	Swollen-thighed Blood Bee
AGS	A Beetle - Agabus stumii	Caf	A Beetle - Cantharis fusca	Doi	A Beetle - Dorytomus ictor	LHG	Long-horned General	Pif	A Beetle - Pilemostoma fastuosum	Std	A Beetle - Staphylinus dimidiaticornis
AL	Adonis' Ladybird	CDtr	Common Darter	Dot	A Beetle - Dorytomus tremulae	Lib	A Caddis Fly - Limnephilus binotatus	Pilu	A True Fly - Pipiza lugubris	Stpu	A True Bug - Stictopleurus punctatonevus
Ams	A Beetle - Amara strenua	Cec	Little Carpenter Bee	FoE	Figure of Eight	Lyph	A Caddis Fly - Lype phaeopa	Phn	A True Fly - Pipizella wrens	Stt	A Beetle - Stenophorus teutonus
Anb	A Beetle - Anisodactylus binotatus	Cel	Slender-horned Leatherbug	Gav	Green Dock Beetle	Lypr	A True Bug - Lygus pratensis	Pla	A Beetle - Platystomos albidus	Syh	A Beetle - Sychita humeralis
Anc	A Beetle - Anthracus consputus	Cap	A True Fly - Cephalos pannonicus	Grs	A True Bug - Grypocoris (Lophyromiris) stysi	Mam	A Spider - Marpisa muscosa	Polf	A Beetle - Podagricra fuscicornis	Trc	A Spider - Tramatoccephalus cristatus
Anf	A Beetle - Anthracus fasciatus	Chc	A True Fly - Chetostoma curviline	Gym	A Beetle - Gyrrinus minutus	Mewe	A True Fly - Merzomyia westermanni	Pofl	A Beetle - Polydrusus flavipes	TSR	The Shining Ram's-horn
Anp	Apple-blossom Weevil	ChM	Black-headed Mason Wasp	Gyr	A True Fly - Gymnosoma rotundatum	Myin	A True Fly - Mycophites inulaedysentericae	Polo	A Beetle - Polydrusus formosus	Voia	A True Fly - Volucella inflata
Ara	A Spider - Araneus angulatus	Chn	Bright Four-spined Legionnaire	Gyu	A Beetle - Gyrrinus urinator	Nag	A Beetle - Nartus grapi	Pola	A Beetle - Polydrusus formosus	Vois	A True Fly - Volucella inanis
ArS	Argent & Sable	Cic	A Spider - Cicurina cicur	Hal	A Beetle - Halippus laminatus	Neg	A Beetle - Nephys quadrimaculatus	Rhc	A Beetle - Rhinocyllus conicus	Vozo	Hornet Hoverfly
Atc	A Beetle - Athiscus campyloides	Cig	A True Fly - Cistogaster globosa	Hel	A Beetle - Helochares lividus	Nof	Painted Nomad Bee	Rhf	A Beetle - Rhantus frontalis	WSp	Wasp Spider
Bac	A Spider - Ballus chalybeius	Cit	A Beetle - Cionus tuberculatus	HJB	Hawthorn Jewel Beetle	Nos	A Beetle - Notaris scirpi	Rhl	A Beetle - Rhagonycha lutea	Zid	A Spider - Zilla diodia
BDB	Banded Dark Bee	Coh	A True Bug - Corizus hyoscyami	Hyc	Spined Hylaesus	Nyt	An Ant, Bee, Sawfly or Wasp	Rho	A True Fly - Rhingia rostrata		
BED	Brilliant Emerald Dragonfly	DBf	Dotted Bee-fly	Lapa	Lobe-spurred Furrow Bee	Osle	Orange-vented Mason Bee	Roro	Roesel's Bush-cricket		



KEY

- Project Site Boundary (ES)
- 2km buffer from Project Site Boundary
- Invertebrate Records (excl. Butterflies and Moths)

Source:
Sussex Biodiversity Record Centre 2022
Surrey Wildlife Trust 2022

DOCUMENT

Environmental Statement

DRAWING TITLE

Invertebrate Records -
Excluding Butterflies and Moths

DATE

July 2023

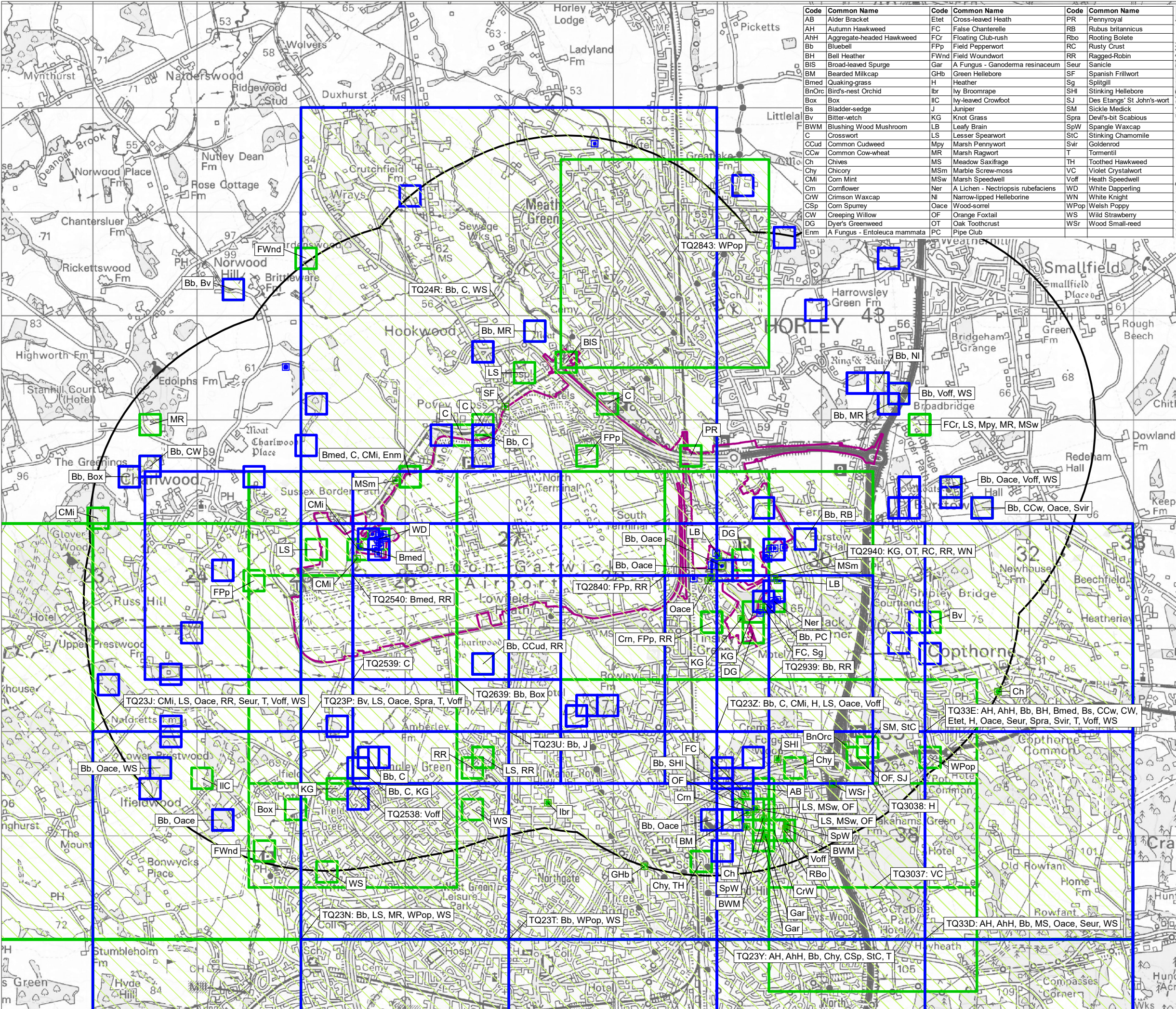
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- KEY
- Project Site Boundary (ES)
 - 2km buffer from Project Site Boundary
 - Plant and Fungi Records
 - Bluebell Record

Source:
Sussex Biodiversity Record Centre 2022
Surrey Wildlife Trust 2022

DOCUMENT

Environmental Statement

DRAWING TITLE

Plant and Fungi Records

DATE

July 2023

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 3.3.6	For ES Issue
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