

Appendix 7.20: Breeding Bird Survey Report



Hampstead Heath Ponds Project

Breeding Bird Survey

Report for City of London Corporation

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1 Introduction

BACKGROUND

- 1.1 The Ecology Consultancy was commissioned by the City of London Corporation to undertake a breeding bird survey of the Hampstead and Highgate chain of ponds on Hampstead Heath.
- 1.2 The survey was required to support an Environmental Impact Assessment (EIA) being prepared by Atkins on behalf of the City of London Corporation as a part of the Flood Water Quality Management Project. The City is undertaking an impact assessment to determine the level of risk to the inhabitants and property downstream, and to establish an appropriate 'flood standard' on both 'chains' of ponds.
- 1.3 A flood risk assessment undertaken on behalf of the City of London Corporation has indicated that just over 1,000 persons were at risk, with a likely loss of life of 349 persons, if no flood warning were given. The City has the responsibility of ensuring the integrity of the structures under the agreed flood events.
- 1.4 In order to support the EIA, a range of ecology surveys have been commissioned by the City of London Corporation. These include breeding birds, amphibians (specifically great crested newts), bats, Phase 1 habitat survey and invasive plant species. The purpose of the breeding bird surveys within the context of EIA is to establish baseline data on the species, numbers, territories and distribution of breeding birds.

SCOPE OF THE REPORT

- 1.5 This report details the methods and findings of the breeding bird survey undertaken by The Ecology Consultancy between 10 May 2013 and 28 June 2013, at Hampstead Heath, Greater London.
- 1.6 An analysis of the conservation value of the breeding bird assemblage is also provided.

SITE CONTEXT AND STATUS

- 1.7 Hampstead Heath (locally known as "the Heath") is a large, ancient London open space, running from Hampstead to Highgate. The Heath is extensive and comprises a variety of habitats including ponds and ancient woodlands; recreational facilities include a lido, playgrounds, and a training track.

- 1.8 Along its eastern perimeter are two chains of ponds – the Hampstead and Highgate chains of ponds. The ponds - including three open-air public swimming pools - were originally reservoirs that were used to provide drinking water extracted from the River Fleet.
- 1.9 The Heath is managed by the City of London Corporation, and lies mostly within the London Borough of Camden with the adjoining Hampstead Heath Extension and Golders Hill Park in the London Borough of Barnet. The Heath is a Site of Metropolitan Importance¹ for nature conservation and includes a number of Habitats and Species of Principal Importance for the Conservation of Biodiversity in England as listed in Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
- 1.10 The potential area of impact of the proposed works to the reservoirs covers the Hampstead and Highgate chains of ponds and an area of land surrounding these (42ha and 48ha respectively) – see Figure 1, Appendix 1. For the purposes of this project, the Survey Area is defined as up to 500m from the Hampstead and Highgate Chains of Ponds including the Vale of Health. The approximate central National Grid Reference for the site is TQ 27433 86544.

¹ London's important wildlife sites are recognised by the Greater London Authority and London borough councils as Sites of Importance for Nature Conservation (SINCs). In total over 1,400 SINCs have been recognised, covering nearly 20% of the capital. The top tier of sites, Sites of Metropolitan Importance, includes the best sites in London. About 140 Metropolitan sites have been identified.

2 Methodology

FIELD SURVEY

- 2.1 The principal survey method employed was a variation of the Common Bird Census (CBC) methodology (Bird Census Techniques: Second Edition, Bibby *et al.*, 2000) and BTO/RSPB guidelines (*Bird monitoring methods: A manual of techniques for key UK species*, Gilbert *et al.*, 1998)).
- 2.2 Six survey visits were undertaken between early May and the end of June, with at least seven days between each visit. The site was sub-divided into two zones (the Hampstead Pond zone and the Highgate Pond zone) based upon each chain of ponds (see Figure 1, Appendix 1). The survey area also included part of the Hampstead Heath Woods Site of Special Scientific Interest (SSSI). One separate ornithological surveyor was used to survey each of these zones.
- 2.3 Surveys were carried out in good weather conditions wherever possible (i.e. good visibility, low to moderate wind speeds, no rain, dense fog etc.), and within daylight hours. Surveyors used a range of high quality optics (comprising tripod mounted telescopes and/or binoculars) during each survey visit and field maps to record the registrations/numbers of each bird species observed. The registrations used comprised the standard British Trust for Ornithology (BTO) species and behaviour codes (a full list of which is provided in Appendix 1). Surveying commenced one hour after sunrise. The starting position for each survey varied between visits in order to reduce survey bias. All areas within the survey area (defined as up to 500m from the Hampstead and Highgate Chains of Ponds including the Vale of Health areas) were surveyed. All field surveys were carried out by experienced ornithologists familiar with CBC methodology.

SURVEY DATES AND TIMES

- 2.4 The dates and times of all survey visits are detailed in Table 1, below:

Table 1: Breeding bird survey dates and times

Survey number	Survey date	Time of survey, Hampstead chain (hrs) and surveyor	Time of survey, Highgate chain (hrs) and surveyor
1	10/05/13	07:00 to 10:30	07:00 to 11:30
2	17/05/13	06:15 to 10:00	06:15 to 10:00
3	28/05/13	08:50 to 10:30	05:45 to 09:00

Survey number	Survey date	Time of survey, Hampstead chain (hrs) and surveyor	Time of survey, Highgate chain (hrs) and surveyor
4	07/06/13	06:20 to 09:10	05:45 to 08:45
5	17/06/13	06:15 to 09:30	05:50 to 09:45
6	28/06/13	06:15 to 08:45	06:15 to 10:30

2.5 The occurrence and levels of disturbance (additional to that caused by the surveyors themselves) was also noted during each visit.

2.6 After the surveys had been completed, all the information obtained from each survey visit was recorded on a series of pre-prepared sketch maps. The sketch maps were subsequently geo-referenced and digitised in ESRI's ArcGIS as points and polygon Shapefiles at a scale of 1:3000, and used to create a series of maps (see Appendix 1).

SURVEY CONSTRAINTS

2.7 There were no survey constraints to the breeding bird survey visits.

3 Results

SURVEY CONDITIONS

- 3.1 The weather conditions during each of the survey visits are shown in Table 2, below:

Table 2: Breeding bird survey weather conditions

Survey number	Survey date	Weather conditions
1	10/05/13	Mixture of sunshine and high cloud (6/8), with occasional light rain, temp. 11°C, wind WSW 2, good visibility.
2	17/05/13	Cloud 7/8, temp. 12°C, wind SW 2-3, excellent visibility.
3	28/05/13	Cold and overcast with continuous light rain, notably until 08.45am, cloud 8/8, temp. 10°C, no wind, poor visibility.
4	07/06/13	Early light rain, cloud 5/8, temp. 11°C, wind SW 1-2, excellent visibility.
5	17/06/13	Overcast, cloud 8/8, temp. 13°C, wind E 1-2, good visibility.
6	28/06/13	Mild and overcast, cloud 8/8, temp. 13°C, no wind.

- 3.2 The weather conditions during most of the survey visits were appropriate for undertaking breeding bird surveys, with the exception of Survey 3 on 28 May 2013. The weather on this day was cold and overcast, with continuous light rain up until 08:45. However, the survey was completed as weather conditions improved during the course of the morning. It is considered unlikely that the early morning weather conditions impacted adversely upon the results.

DISTURBANCE

- 3.3 High levels of anthropogenic disturbance occur at Hampstead Heath. This disturbance largely comprises recreational pressures such as walking, dog-walking, swimming in the bathing ponds, concerts, and sporting activities. The surveys were conducted soon after dawn meaning that disturbance at this time from human activity was less than would be expected later in the day.
- 3.4 Other forms of disturbance were noted on numerous occasions including those resulting from the presence of a range of raptors, corvids, and mammalian predators.

BREEDING RECORDS

- 3.5 The breeding status (as outlined in the methodology) of notable species¹ is detailed in Table 3 and a selected species account for each notable species is described within this section. A total of 50 species were recorded during the breeding bird survey. Of these, a total of 18 species are considered notable species (see Table 3). Of the notable species, five were confirmed as breeding (mallard, song thrush, dunnock, common whitethroat and starling), two were probable breeding species, five were possible breeding species, and six were considered to be non-breeding. Of the remaining 32 'non notable' species, 19 were confirmed as breeding, eight were probable breeding species, one was a possible breeding species, and four were considered to be non-breeding.
- 3.6 The non-notable species records from the survey are listed in Table 4, which also lists the maximum number of registrations and the survey visit to which those registrations relate, along with a commentary on breeding status.
- 3.7 The distribution of selected notable species is mapped (see Figures 2-6, Appendix 1).

Table 3: Breeding Status of Notable Species

Common name	Latin name	Conservation status	Breeding Status
Mallard	<i>Anas platyrhynchos</i>	Amber List	Confirmed, adult with juveniles on the Stock Pond.
Common pochard	<i>Aythya farina</i>	Amber List	Possible
Tufted duck	<i>Aythya fuligula</i>	Amber List	Probable
Kestrel	<i>Falco tinnunculus</i>	Amber List	Possible
Black-headed gull	<i>Chroicocephalus ridibundus</i>	Amber List	Non-breeding
Common gull	<i>Larus canus</i>	Amber List	Non-breeding

¹ For the purposes of this report, notable species are taken to include species:

- listed on Schedule 1 of the Wildlife and Countryside Act (1981 as amended);
- included in the Birds of Conservation Concern (BoCC) (Eaton *et al.*, 2009); and /or listed as a Species of Principal Importance (under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) and/or Local BAP (LBAP) priority species.

Common name	Latin name	Conservation status	Breeding Status
Herring gull	<i>Larus argentatus</i>	Red List Species of Principal Importance, London BAP Priority Species	Non-breeding
Common tern	<i>Sterna hirundo</i>	Amber List	Non-breeding
Stock dove	<i>Columba oenas</i>	Amber List	Possible
Common swift	<i>Apus apus</i>	Amber List; Camden LBAP species	Non-breeding
Green woodpecker	<i>Picus viridis</i>	Amber List; Barnet LBAP species	Probable
Swallow	<i>Hirundo rustica</i>	Amber List	Non-breeding
Grey wagtail	<i>Motacilla cinerea</i>	Amber List	Possible
Dunnock	<i>Prunella modularis</i>	Amber List, Species of Principal Importance, London BAP Priority Species	Confirmed, based upon location and number of song registrations.
Song thrush	<i>Turdus philomelos</i>	Red List, Species of Principal Importance, London BAP Priority Species, Barnet LBAP Species	Confirmed, based upon location, number and type of registrations.
Mistle thrush	<i>Turdus viscivorus</i>	Amber List	Possible
Common whitethroat	<i>Sylvia communis</i>	Amber List	Confirmed, based upon location, number and type of registrations, and adult feeding juvenile.
Starling	<i>Sturnus vulgaris</i>	Red List, Species of Principal Importance, London BAP Priority Species	Confirmed, active nest found.

- 3.8 **Mallard:** Mallard was seen on all six survey visits with between 17 and 48 individuals recorded. They were recorded from all water bodies surveyed within the Hampstead and Highgate chains, with the exception of the northern section of the Viaduct Pond and the small pond to the north of the Mixed Bathing Pond (No. 3). The majority of the birds recorded were males (male mallards typically gather in moulting flocks from late May onwards), although paired birds were recorded with a maximum of two pairs recorded on any one visit. Breeding was confirmed in the vicinity of the Stock Pond by the presence of adults with ducklings present.
- 3.9 Mallard is a 'very common and widespread breeding resident' (LBR 2013) in London. As a breeding species in London, mallard showed a 39% increase between 2009 and 2010, with 17+ pairs recorded from five sites in Inner London in 2010 (LBR 2013).
- 3.10 **Common pochard:** One female common pochard recorded from Hampstead No. 1 pond on the sixth survey visit was the only record of this species. No nest was located and neither were any juveniles recorded. As the bird was observed in suitable breeding habitat, this species should be considered as possibly breeding.
- 3.11 Common pochard is a 'common winter visitor and migrant, scarce breeder' in London (LBR 2013). The number of sites reporting breeding was 20 in 2010 (LBR 2013), an increase on the 15 in 2009. In Inner London, 6 pairs bred in Regent's Park in 2010 (LBR 2013).
- 3.12 **Tufted duck:** This species was recorded on all six survey visits with between one and 21 individuals recorded, being recorded from all water bodies surveyed within the Hampstead and Highgate chains, with the exception of the Model Boating Pond, the Viaduct Pond and the small pond to the north of the Mixed Bathing Pond (No. 3). Five pairs were present on both the fifth and sixth survey visits, notably on Highgate Men's Bathing Pond and Highgate No. 1 Pond. No nests were located and neither were any ducklings recorded. As paired birds were present in suitable habitat throughout the breeding season, this species should be considered as a probable breeding species.
- 3.13 Tufted duck is a 'regular resident breeder and common winter visitor' in London (LBR 2013). The number of breeding sites was 49 in 2010 (LBR 2013), up from 41 sites in the previous two years, with 202 breeding pairs present, a similar number to that in previous years (LBR 2013). Eleven pairs were recorded from Inner London in 2010, with the highest counts from Regent's Park (five pairs) and St. James's Park (four pairs).

- 3.14 **Kestrel**: This species was recorded on three survey visits with five individual registrations (see Figure 2, Appendix 1). At least one of the sightings was of a female. Although potentially suitable breeding habitat exists for kestrel on the Heath, from observation of behaviour, it is considered that these records relate to birds hunting over the area.
- 3.15 Kestrel is a 'common breeding resident' in London (LBR 2013) with 36 breeding pairs in 2010. Four pairs of kestrel were proven breeding in Inner London in 2010, for example, in Hyde Park / Kensington Gardens, in Regent's Park and in St. James's Park (LBR 2013).
- 3.16 **Black-headed gull**: One black-headed gull a 1st summer individual, recorded from the Viaduct Pond on the 6th survey visit, was the only record of this species. This species is not considered to breed on the Heath.
- 3.17 Black-headed gull is a 'very common winter visitor and passage migrant, occasional breeder' in London (LBR 2013) with the species breeding at nine sites in 2010. None of these sites was in Inner London.
- 3.18 **Common gull**: There was one record of common gull, considered to be a late passage adult, during the 5th survey visit. This species does not breed in the London area, with its status in London described as 'common winter visitor and passage migrant' (LBR 2013).
- 3.19 Common gull is a 'common winter visitor and passage migrant' in London (LBR 2013).
- 3.20 **Herring gull**: Between one and six individuals of this species were recorded on all six survey visits, with all sightings being from the ponds. Birds were recorded from the following ponds: Bird Sanctuary Pond, Kenwood Ladies' Bathing Pond, Hampstead No. 1 Pond, Viaduct Pond and Highgate No. 1 Pond. All of the sightings were of adults, with the exception a 3rd summer individual from Hampstead No. 1 pond on the first survey visit.
- 3.21 In London herring gull is described as 'common, most regular in winter; breeds in small numbers' (LBR 2013). Breeding is difficult to prove but between 16 and 38 pairs were confirmed in 2013, of which 8 were from Inner London.
- 3.22 **Common tern**: Up to two individuals of this species were recorded on five of the six survey visits and at the following locations: Model Boating Pond (up to two individuals), Bird Sanctuary Pond and Vale of Health Pond (two individuals).

- 3.23 Common tern is described as a 'common summer visitor and passage migrant' (LBR 2013) in London. In total, 190 pairs of common tern bred in the London area in 2010. Common terns were recorded on seven dates between May and August in Hyde Park / Kensington Gardens
- 3.24 **Stock dove:** An individual was singing to the east of the Mixed Bathing Pond (No. 3) on visit 1, and a pair was observed to the east of the Vale of Health Pond on visit 4 (see Figure 2, Appendix 1).
- 3.25 Stock dove is a 'breeding resident and passage migrant' (LBR 2013) in London. A total of at least 92 breeding pairs were reported from 29 sites in 2010 (LBR 2013). The species is under-reported and often difficult to confirm as breeding. Breeding sites in Inner London include Buckingham Palace Gardens, Hyde Park / Kensington Gardens and Regent's Park. Hampstead Heath was previously recognised as a north London stronghold with 15-20 pairs present (LNHS, 2002).
- 3.26 **Common swift:** small numbers of swifts were recorded on each survey visit, with a peak count of 8 on visit 6 to the north-east of the Model Boating Pond. The majority of sightings related to singletons or pairs of birds hunting over the open grassland and water areas. Swifts nest in buildings and it is assumed that these birds were nesting in properties local to the Heath.
- 3.27 Common swift is a 'common, though probably declining, breeding summer visitor and passage migrant' (LBR 2013) in London. Breeding records from the London area are described as 'scant', although whether this is due to declining numbers (LBR 2013) or the difficulty of proving breeding is hard to know.
- 3.28 **Green woodpecker:** green woodpecker was recorded on all survey visits, with between 1-2 individuals recorded, typically calling and / or flying across open areas (see Figure 2, Appendix 1).
- 3.29 Green woodpecker is a 'common breeding resident' (LBR 2013) in London. In London recorded from 157 sites, with at least 85 pairs bred (counting records of confirmed/probable breeding) (LBR 2013), which is a decline from the previous year. Recorded in Inner London from Buckingham Palace Garden, Hyde Park / Kensington Gardens (1 pair bred), Regent's Park and Victoria Park.

- 3.30 **Swallow**: one swallow was observed on visit 2 flying south across Parliament Hill Fields. This species nests within buildings and as there are no suitable buildings on site this record is thought to relate to a late passage bird.
- 3.31 Swallow, in London, is a 'common summer visitor and passage migrant, with breeding confined to rural areas' (LBR 2013). Only nine breeding sites were reported from the London area in 2010, all on the outskirts.
- 3.32 **Grey wagtail**: this species was recorded on two occasions, on survey visits 1 and 4, both of which related to birds in flight in the vicinity of Hampstead No. 2 Pond (see Figure 2, Appendix 1). It is considered that this species likely nests locally but breeding was not proven.
- 3.33 Grey wagtail in London is a 'common breeding resident and passage migrant' (LBR 2013). There were 43 breeding or probable breeding records in 2010, including locations in Inner London.
- 3.34 **Dunnock**: this species was recorded on all survey visits but birds were rarely recorded singing from the same area and at only one location, to the east of the Mixed Bathing Pond (No. 3), where three registrations, in close enough proximity to each other, to be regarded as 'confirmed' breeding. Singing birds were recorded from a further 11 scattered locations across the survey site (see Figure 3, Appendix 1).
- 3.35 Dunnock, in London, is an 'abundant breeding resident' (LBR 2013) although there are still relatively few records for such a common species (LBR 2013). In 2010 Inner London records were only received from Hyde Park / Kensington Gardens (two pairs).
- 3.36 **Song thrush**: this species was recorded on all six survey visits, and was confirmed as a breeding species based on the number of registrations in close proximity to each other, although no active nests were found. Based on the registrations, it is considered that there were two confirmed breeding pairs (one territory at the southern end of Stock Pond, and the second in the dense woodland to the east of the Catch Pit), four probable nesting pairs and a further seven possible nesting pairs (see Figure 4, Appendix 1).
- 3.37 Song thrush, in London, is described as 'common, but locally declining, breeding resident, passage migrant and winter visitor' (LBR 2013). The species is regarded as 'still greatly under-recorded but c. 250 territories / singing males were recorded in 2010.' There is evidence for an increase between 2009 and 2010. Inner London breeding

records were received from Battersea Park, Hyde Park / Kensington Gardens and St. James Park.

- 3.38 **Mistle thrush:** this species was recorded on survey visits 1 (a singing bird to the north-east of the Viaduct Pond and a calling bird to the east of the Mixed Bathing Pond) and on survey visit 2 (a bird sitting in a tree to the east of Hampstead No. 2 Pond) (see Figure 2, Appendix 1). There were not enough registrations in the same area to confirm this as a breeding species, but it is considered as possibly breeding.
- 3.39 Mistle thrush, in London, is described as 'common breeding resident' (LBR 2013). About 93 territories were recorded in the London area in 2010 – there has been a decline of 47% in London between 1995 and 2009. In 2010, Inner London records were received from Barnard Park, Hyde Park / Kensington Gardens, Larkhall Park, Stockwell and St. James Park.
- 3.40 **Common whitethroat:** this species was recorded in song on all six survey visits. Based upon the location of registrations and the presence of an adult feeding a juvenile bird, the survey area was confirmed as supporting three breeding territories, with an additional two probable breeding territories, and a further five possible breeding territories. Breeding locations were as follows: Parliament Hill Fields (one confirmed pair; one possible pair), north-west of Kenwood Ladies' Bathing Pond (one probable pair), east of Stock Pond (one probable pair), Pryors Fields (two possible pairs in the north; two confirmed pairs and one possible pair in the south), south side of Parliament Hill (one possible pair) (see Figure 5, Appendix 1).
- 3.41 Common whitethroat, in London, is described as 'common breeding resident' (LBR 2013). In 2010 in Inner London breeding was recorded only from Regent's Park.
- 3.42 **Starling:** starlings were recorded on five of the six survey visit (not observed on visit 3). The majority of sightings related to observations of one or two birds in flight, typically over open areas such as Parliament Hill Fields and Pryors Fields. However, small flocks of birds were recorded, e.g. 23 birds in a tree on Parliament Hill Fields on visit 5, 15 birds on Dukes Field on survey visit 1, and flocks of 7 and 16 to the south of the bandstand on visits 2 and 4 respectively. A hole nest in a mature tree was located on survey visit 1 at the north-eastern end of Hampstead No. 2 pond which confirmed nesting (see Figure 6, Appendix 1).

3.43 Starling in London is described as 'common but declining, breeding resident, passage migrant and winter visitor. The London Area decline of the starling continues with a 40% decrease from 1995 to 2009' (LBR 2013). In 2010 in Inner London, breeding was recorded from Hyde Park / Kensington Gardens (small numbers), Paddington Green, St. James's Park and Wyvil Estate, Wyvil Road, Vauxhall.

Table 4: Maximum Number of Registrations of non-Notable Species and Breeding Status

Species	Scientific Name	Conservation Status	Peak Number of Registrations	Survey Visit on which Peak Registrations Occurred	Confirmed Evidence of Breeding
Mute swan	<i>Cygnus olor</i>		1	4	Confirmed. Two adults each with one juvenile on both Bird Sanctuary Pond and Highgate No. 1 Pond
Canada goose	<i>Branta canadensis</i>		8	1	Confirmed – one nest on Kenwood Ladies' Bathing Pond, one nest Vale of Health Pond
Mandarin duck	<i>Aix galericulata</i>		6	4	Confirmed – family present on Kenwood Ladies' Bathing Pond
Great crested grebe	<i>Podiceps cristatus</i>		2	5	Confirmed – one nest on Hampstead No. 1 Pond with juveniles present on survey visit 6
Cormorant	<i>Phalacrocorax carbo</i>		4	1 and 6	Non-breeding
Grey heron	<i>Ardea cinerea</i>	Barnet LBAP species	4	2	Non-breeding
Sparrowhawk	<i>Accipiter nisus</i>		2	6	Possible
Moorhen	<i>Gallinula chloropus</i>		15	2 and 4	Confirmed – one nest on Vale of Health Pond and one nest on Kenwood Ladies Bathing Pond, and juvenile present on Highgate No. 1 pond on survey visit 6.
Coot	<i>Fulica atra</i>		28	1 and 6	Confirmed – six nests on Hampstead No. 1 Pond (with juveniles present on survey visit 6), two nests on Hampstead No. 2 Pond, one nest on Viaduct Pond (with juveniles present on survey visit 6), one nest on Kenwood Ladies' Bathing Pond, 1 nest on Model Boating Pond, one nest

Species	Scientific Name	Conservation Status	Peak Number of Registrations	Survey Visit on which Peak Registrations Occurred	Confirmed Evidence of Breeding
					juveniles present on Highgate No. 1 pond with juveniles present on survey visits 4 and 6.
Feral pigeon	<i>Columba livia</i>		9	5	Non-breeding
Woodpigeon	<i>Columba oenas</i>		38	6	Probable based upon number of registrations and presence in suitable breeding habitat.
Ring-necked parakeet	<i>Psittacula krameri</i>		22	6	Confirmed, based on occupied nest hole located at the eastern edge of Parliament Hill Fields on survey visit 6.
Great spotted woodpecker	<i>Dendrocopos major</i>	Barnet LBAP species	4	2 and 5	Probable based upon number and location of registrations, with activity concentrated around Hampstead No. 1 and 2 Ponds, Highgate No. 1 Pond and to the west of the Stock Pond.
Wren	<i>Troglodytes troglodytes</i>		40	4	Confirmed, based upon location, number and type of registrations and family of birds seen
Robin	<i>Erithacus rubecula</i>		24	1 and 6	Confirmed, based upon location, number and type of registrations, and adult carrying food to the east of the Mixed Bathing Pond (No. 3) on survey visit 4 with juvenile present along cycle path to west of Viaduct Pond on survey visit 6.
Blackbird	<i>Turdus merula</i>		35	4	Confirmed, based on upon location, number and type of registrations
Reed warbler	<i>Acrocephalus scirpaceus</i>		1	2, 4 and 6	Confirmed, based upon location, number and type of registrations
Blackcap	<i>Sylvia atricapilla</i>		13	4	Confirmed, based upon location, number and type of registrations, and family of birds seen, with activity

Species	Scientific Name	Conservation Status	Peak Number of Registrations	Survey Visit on which Peak Registrations Occurred	Confirmed Evidence of Breeding
					concentrated to the north of the Stock Pond, and within the woodland in an arc along the eastern edge of the Hampstead chain, and along the westernmost boundary of the Hampstead chain.
Chiffchaff	<i>Phylloscopus collybita</i>		7	1	Confirmed, based upon location, number and type of registrations, and family of birds seen in north-west corner of Pryors Field on survey visit 6. This species was concentrated around the Viaduct Pond and East Heath (3+ territories) and along the southern side of South Meadow (2+ territories).
Goldcrest	<i>Regulus regulus</i>		3	1	Probable, in the vicinity of Highgate No. 1 Pond
Long-tailed tit	<i>Aegithalos caudatus</i>		2	1 and 4	Confirmed, based upon location, number and type of registrations, and on family of birds seen to west of Mixed Bathing Pond (No. 3) on survey visit 4.
Blue tit	<i>Cyanistes caeruleus</i>		35	6	Confirmed, based upon location, number and type of registrations, and on families of birds seen around Pryors Field and East Heath on survey visit 6.
Great tit	<i>Parus major</i>		16	6	Confirmed, based upon location, number and type of registrations, and on families of birds seen on Parliament Hill Fields (survey visit 5) and around Pryors Field and East Heath on survey visit 6.
Coal tit	<i>Periparus ater</i>		5	6	Probable, along the border of East Heath and the Vale of Heath Pond.

Species	Scientific Name	Conservation Status	Peak Number of Registrations	Survey Visit on which Peak Registrations Occurred	Confirmed Evidence of Breeding
Nuthatch	<i>Sitta europaea</i>		3	6	Confirmed, based upon location, number and type of registrations and on family of birds seen to the east of the Viaduct Pond on survey visit 5.
Jay	<i>Garrulus glandarius</i>		5	1 and 6	Probable based upon number of registrations and presence in suitable breeding habitat.
Magpie	<i>Pica pica</i>		25	5	Probable based upon number of registrations and presence in suitable breeding habitat.
Jackdaw	<i>Corvus monedula</i>		6	2	Probable based upon number of registrations and presence in suitable breeding habitat, with activity concentrated to the north of the Stock Pond.
Rook	<i>Corvus frugilegus</i>		3	5	Non-breeding
Carrion crow	<i>Corvus corone</i>		35	1	Confirmed, based upon location, number and type of registrations and on observation of juvenile bird, south of Hampstead No. 1 Pond on survey visit 5.
Chaffinch	<i>Fringilla coelebs</i>		12	1	Confirmed, based upon location, number and type of registrations.
Greenfinch	<i>Carduelis chloris</i>		2	3 and 4	Probable, based upon location, number and type of registrations, with a probable pair along the southern edge of Pryors Fields and a possible pair near the bandstand in the Highgate Ponds chain.

- 3.44 Of the 32 non-notable ('green list') species recorded from within the survey area, nine species (including reed warbler) are considered to be wetland species, with the remaining 23 'non-wetland' species being species of woodland, open parkland, gardens etc. within a London context.
- 3.45 Based upon the number and location of registrations, commentary as to the likely probability of breeding is provided within Table 4.
- 3.46 Of the wetland species, coot had the highest number of registrations, reflected in the number of nesting pairs located, with moorhen having the second highest number of registrations (see Table 4).
- 3.47 In respect of the 'non-wetland' species, the species with the maximum number of registrations was wren, followed by blackbird, carrion crow, magpie, robin and ring-necked parakeet (see Table 4).

4 Discussion and Recommendations

DISCUSSION

- 4.1 The results of the Hampstead Heath breeding bird survey indicate that the survey area supports a good range of common wetland species, along with species of woodland, parkland and scrub.
- 4.2 The wetland species were associated with the Hampstead and Highgate pond chains. Notable amongst these was breeding reed warbler, which breeds at only one other known site in Inner London.
- 4.3 Additionally the survey area supports some notable breeding species of scrub, woodland and parkland, such as common whitethroat, dunnock, green woodpecker and song thrush, alongside a range of more common and widespread breeding species associated with these habitats, such as blackcap, chiffchaff, great spotted woodpecker, blackbird, robin and wren. The Heath acts as a foraging area (at least) for kestrel which is rare in Inner London. The areas of scrub are considered valuable habitat for breeding warblers such as blackcap and whitethroat, and one of the habitats 'under pressure' from recreational activity, and clearance through management activities. The value of this habitat is demonstrated by the presence of common whitethroat as a breeding species, with potentially as many as up to 10 pairs present; only one other pair is confirmed as breeding in Inner London in 2010 (LBR, 2013).
- 4.4 Overall, the extent of the Heath and the diversity of the habitats present in such close proximity to Central London means that it is valuable to a range of bird species and provides an important breeding and foraging resource despite significant human pressures.

RECOMMENDATIONS

- 4.5 The key recommendations of breeding bird survey are:
 - Areas of scrub are maintained and managed to encourage use by nesting warblers such as common whitethroat and blackcap, along with species such as dunnock and wren;
 - Management of the wetlands to encourage use by nesting species. For example the provision of managed islands could target nesting duck species and potentially

species such as common tern which are regularly recorded from the Heath's chain of ponds but not recorded as a breeding species; and

- Any clearance of vegetation (for example, scrub, woodland, grassland and wetland vegetation), needs to take account of the seasonality of nesting bird species. All wild birds (i.e. resident, visiting and introduced species) in the UK are protected by law under the WCA 1981 (as amended), making it an offence to:
 - intentionally kill, injure or take any wild bird;
 - intentionally take, damage or destroy the nest of any wild bird while it is being built or in use;
 - intentionally take or destroy the eggs of any wild bird;
 - have in one's possession or control any wild bird (dead or alive), part of a wild bird or egg unless obtained legally; and
 - for birds on Schedule 1, intentionally or recklessly disturb any wild bird while it is nest building or is in, on or near a nest with eggs or young, or disturb the dependent young of such a bird.
- To avoid prosecution, it must be demonstrated that all reasonable effort has been made to avoid breaking the law. This requires appropriate survey, and mitigation measures if required, before undertaking any works that will affect nesting birds.

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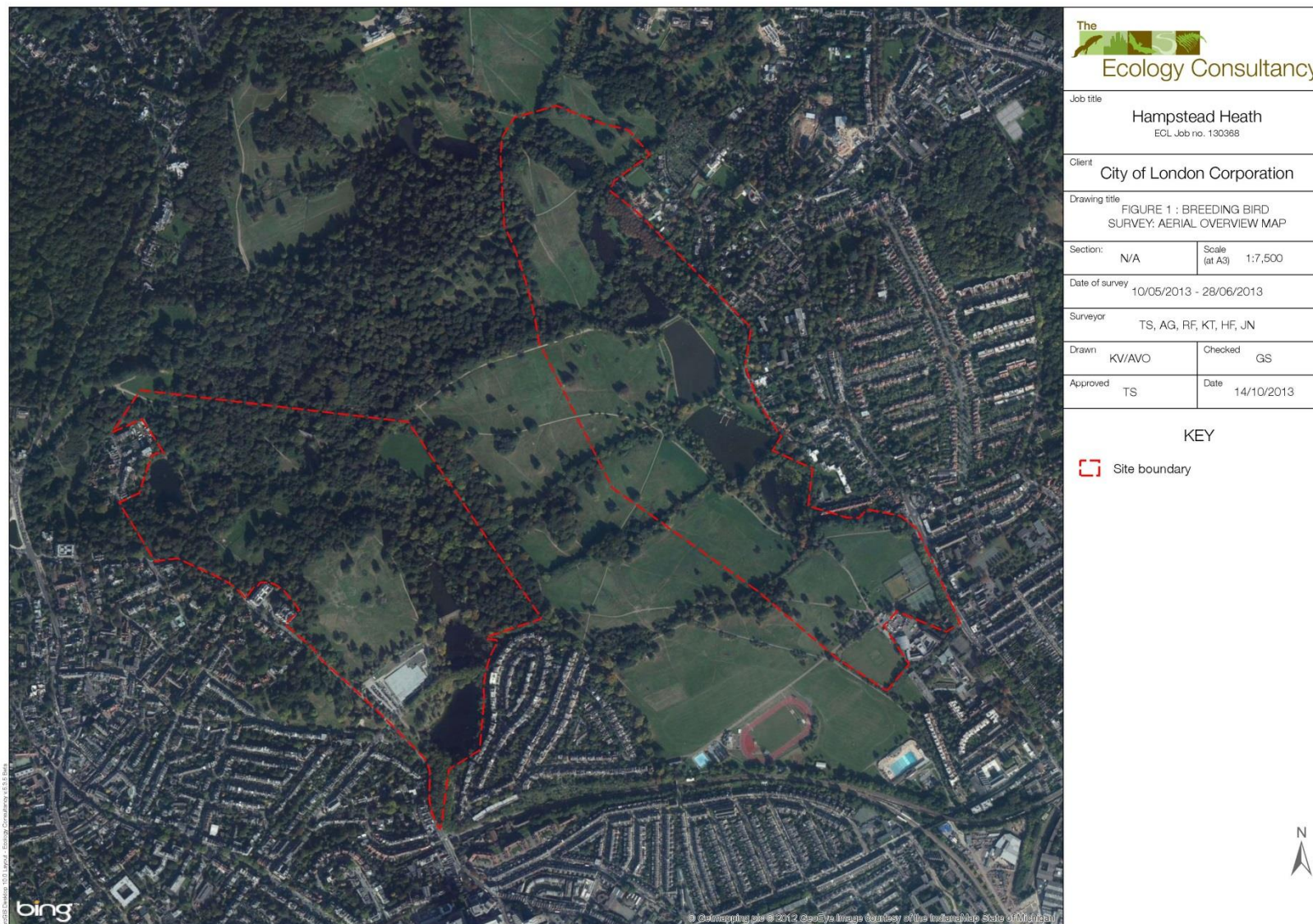
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London Natural History Society (LNHS) 2002. *The Breeding Birds of the London Area*. LNHS, Natural History Museum, London SW7 5BD.

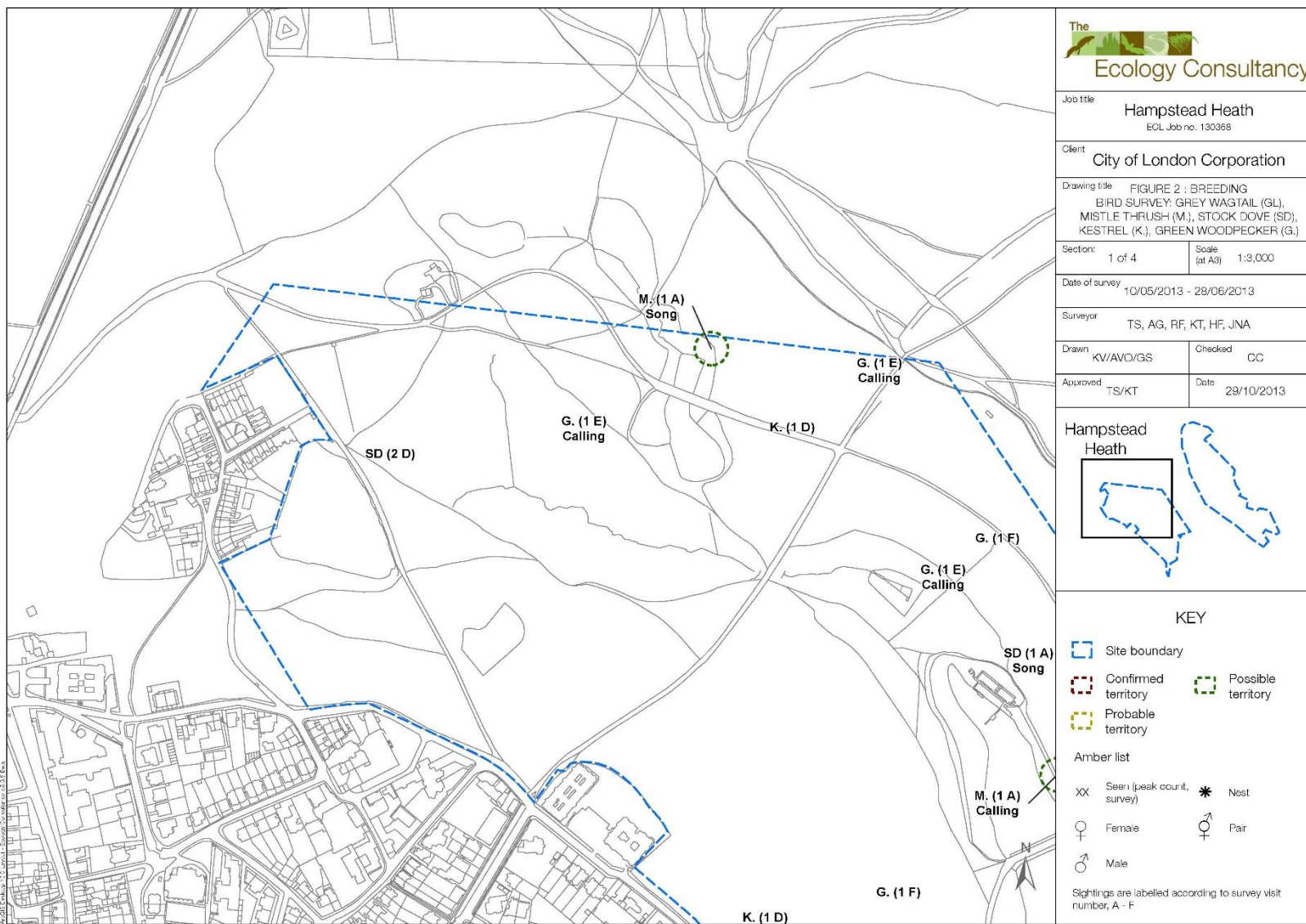
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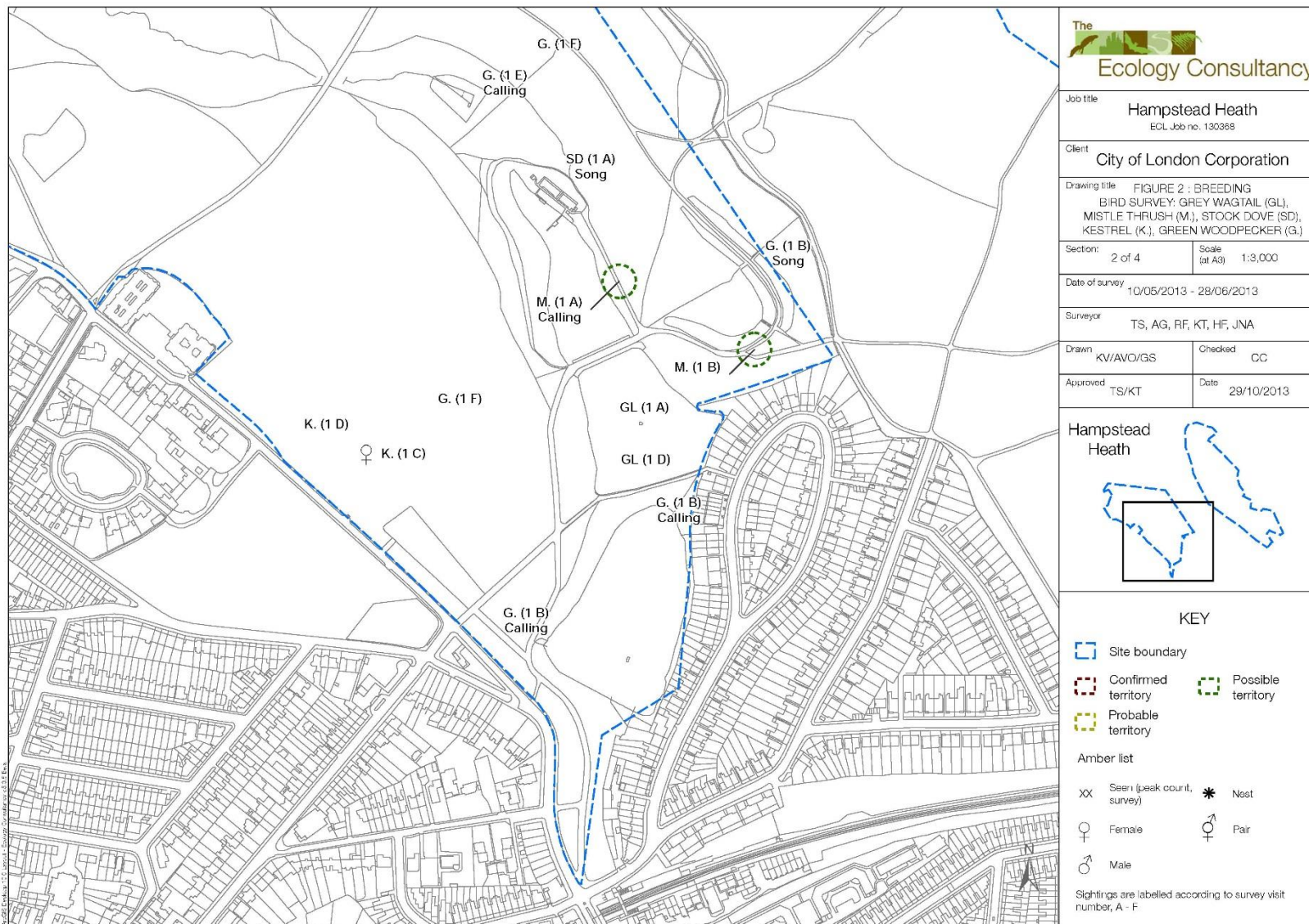
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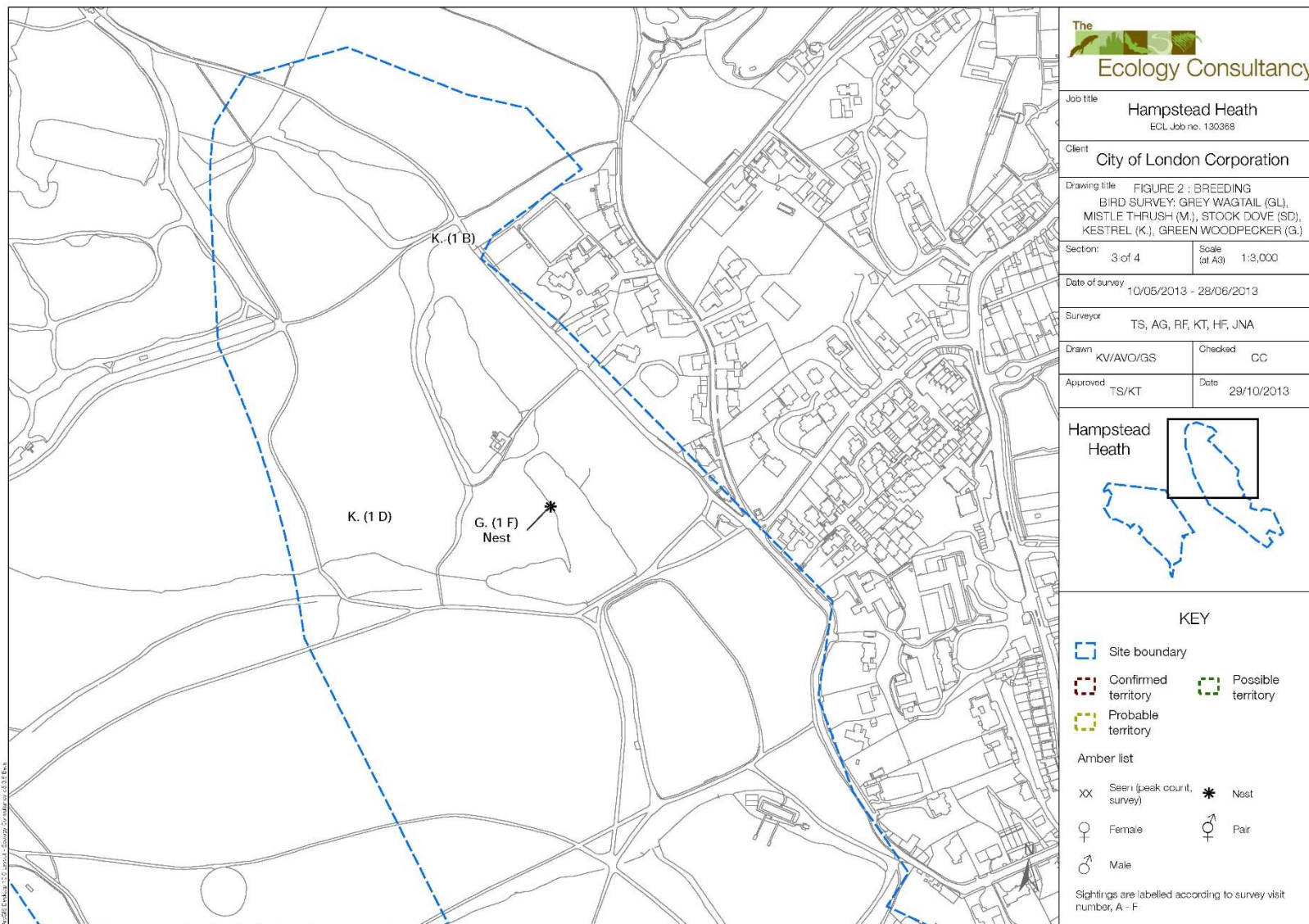
Appendix 1: Figures



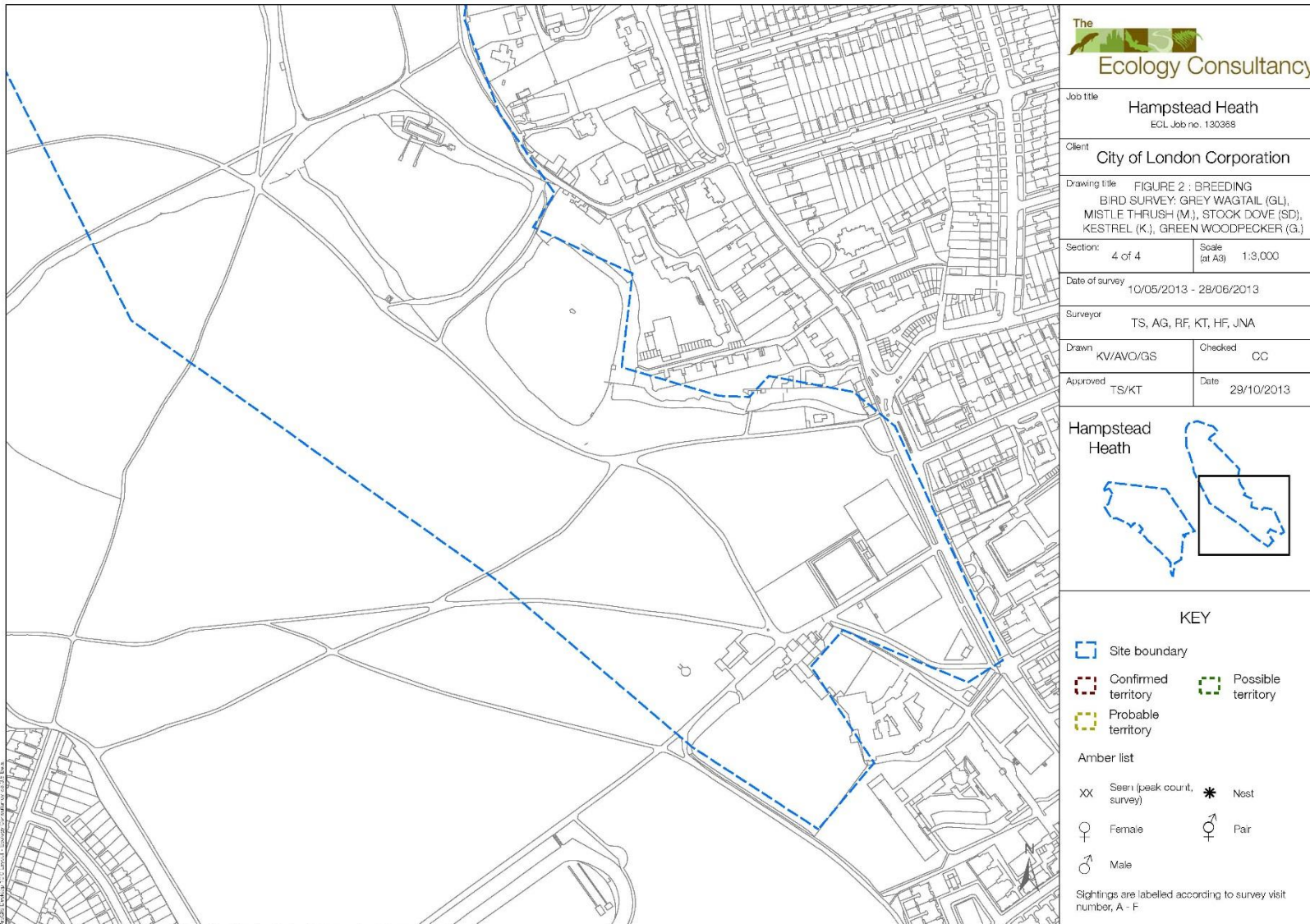
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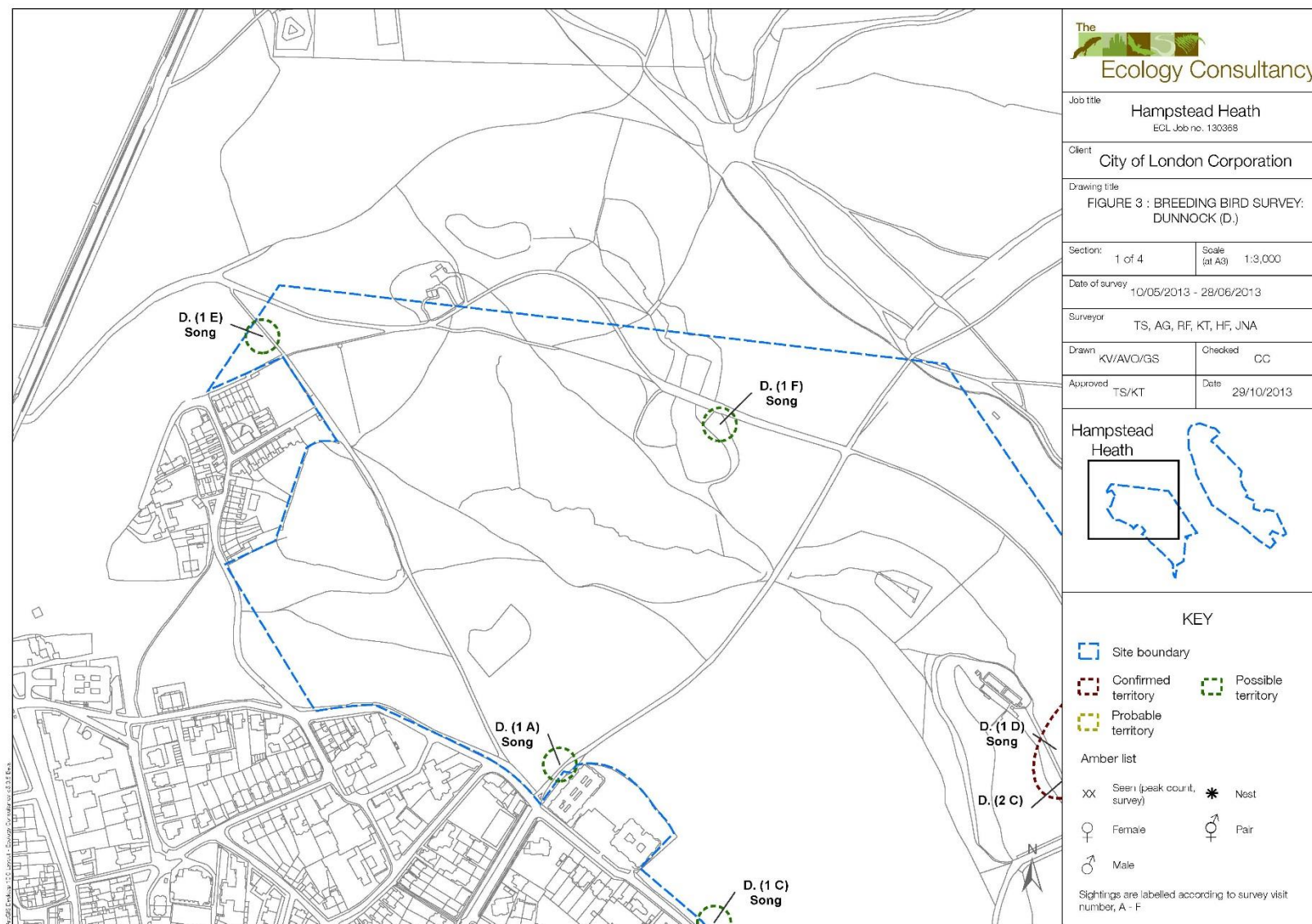






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Hampstead Heath
ECL Job no. 130368

Client
City of London Corporation

Drawing title
FIGURE 3 : BREEDING BIRD SURVEY:
DUNNOCK (D.)

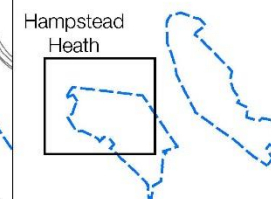
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Scale (at A3) 1:3,000

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10/05/2013 - 28/06/2013

Surveyor
TS, AG, RF, KT, HF, JNA

Drawn KV/AVO/GS
Checked CC

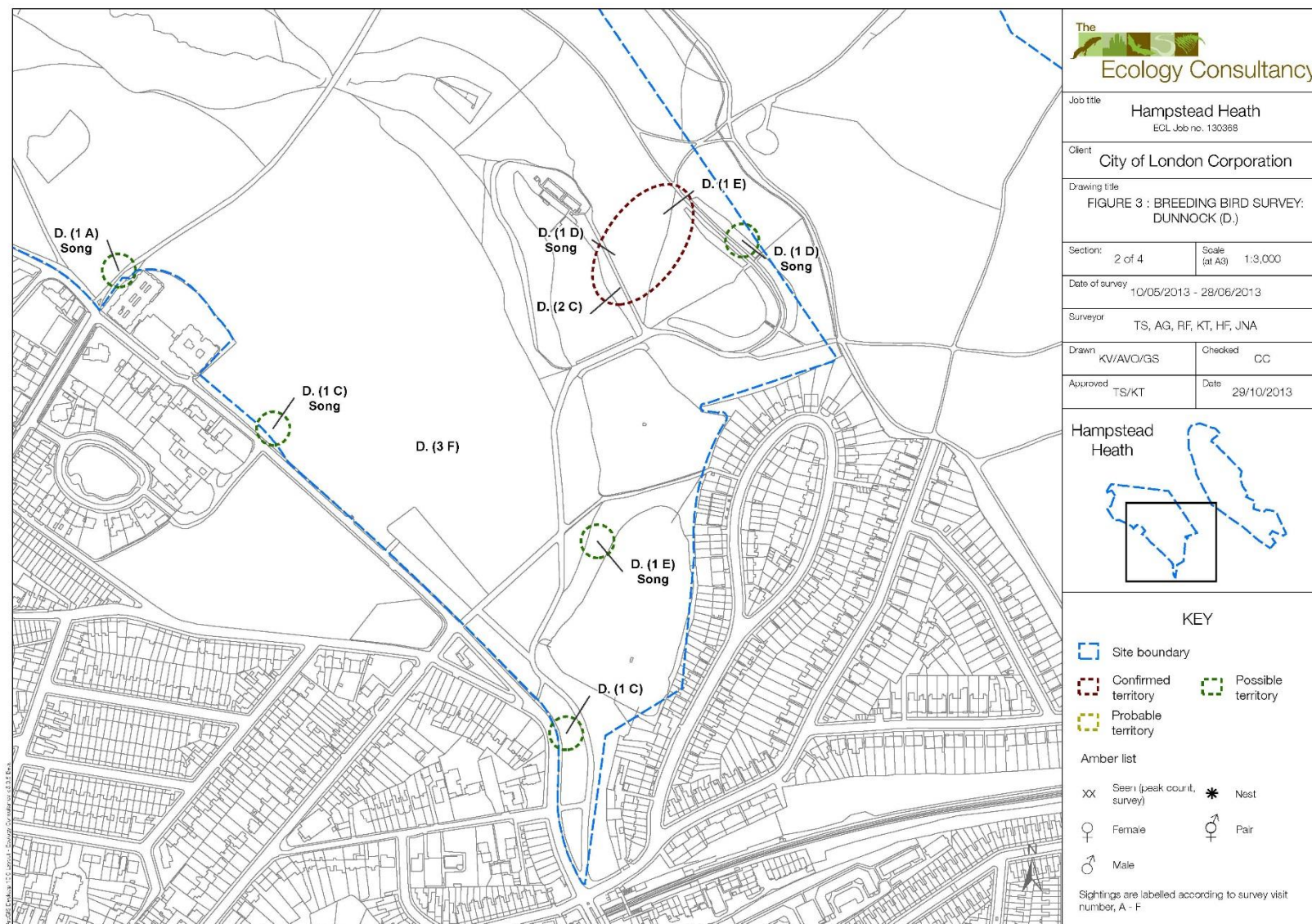
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Date 29/10/2013

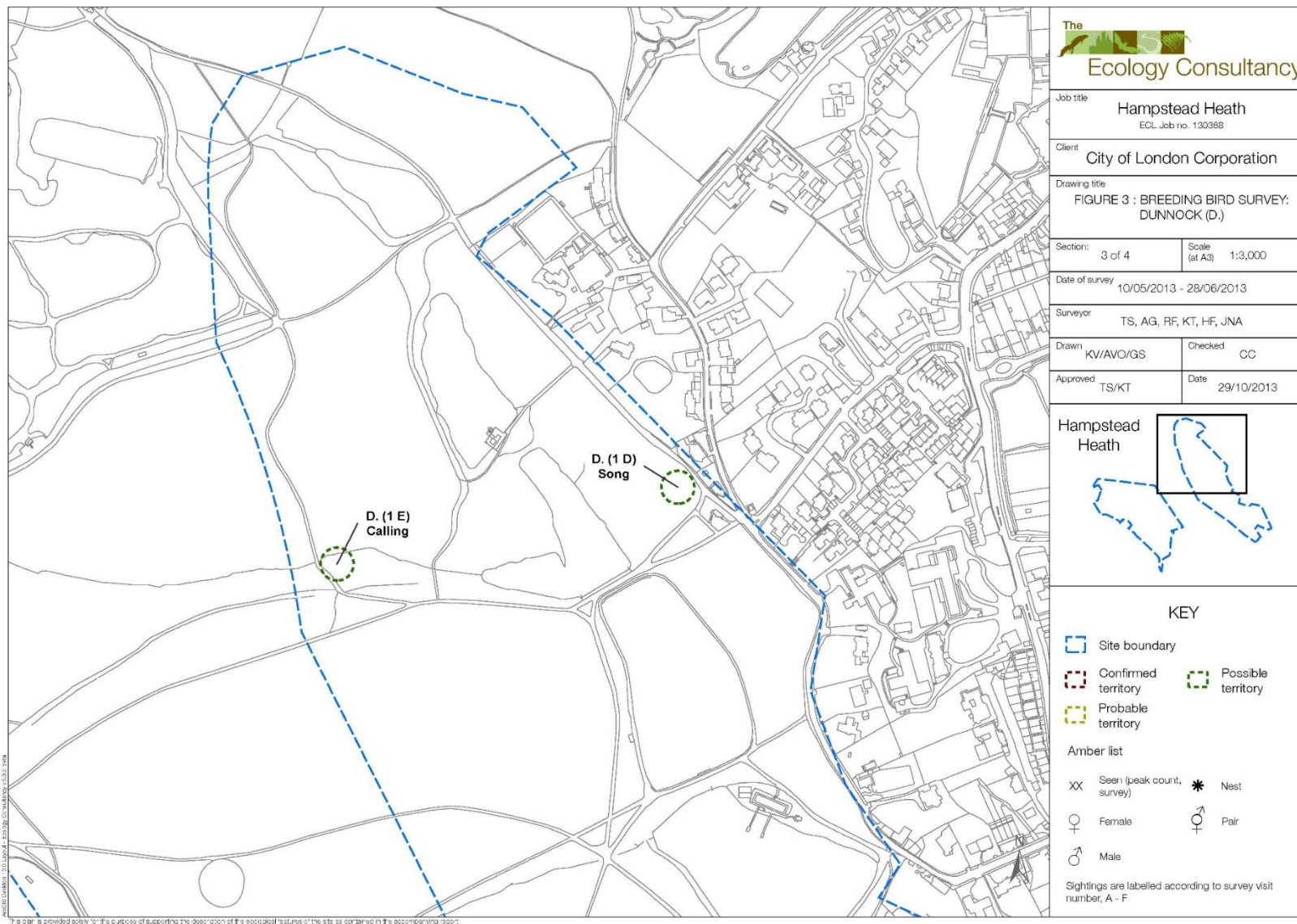


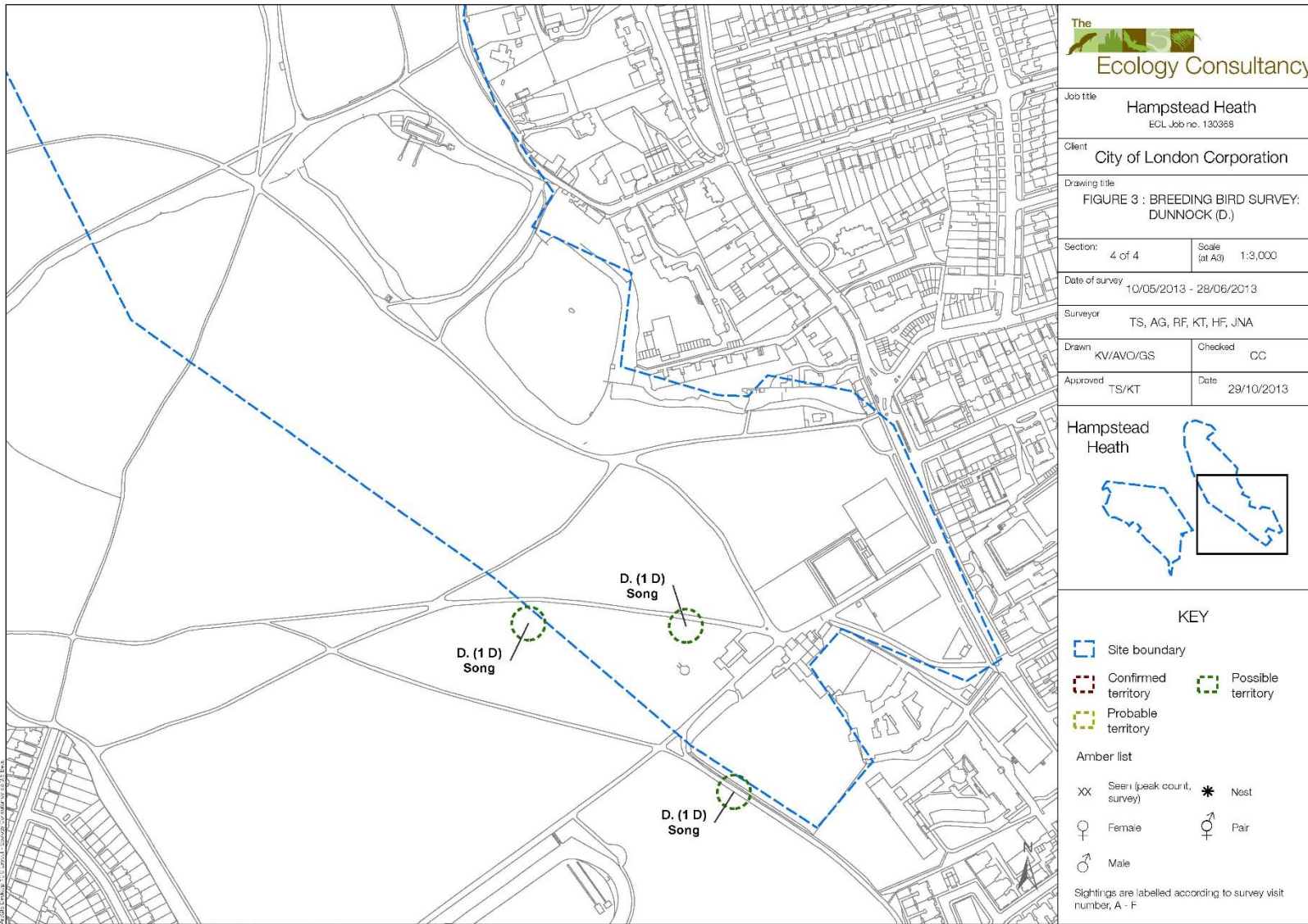
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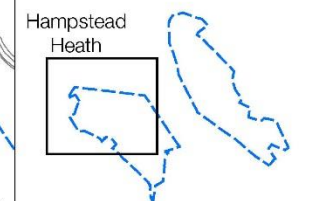
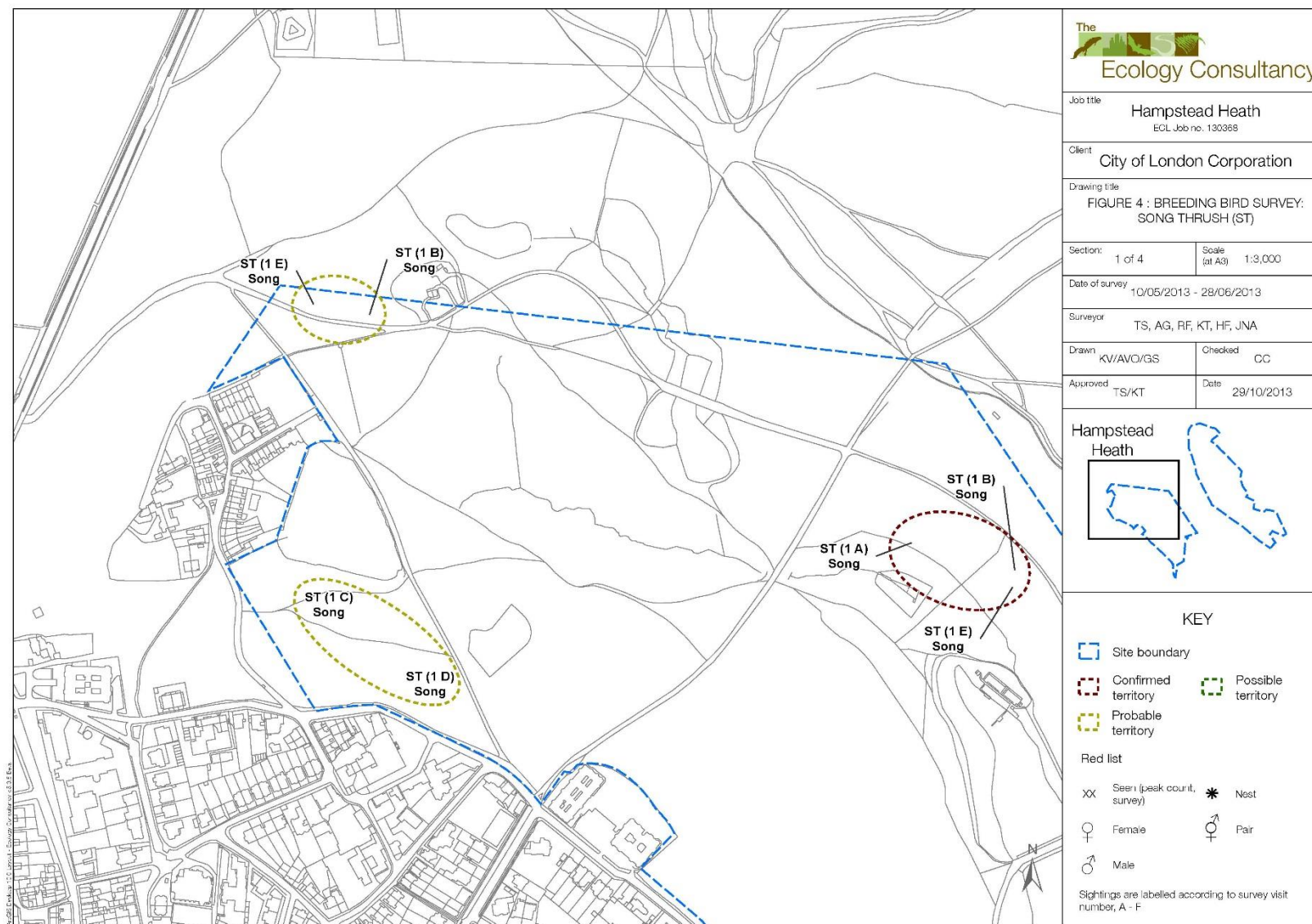
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- Confirmed territory
- Probable territory
- Possible territory
- Amber list
- Seen (peak count, survey)
- Female
- Male
- Nest
- Pair

Sightings are labelled according to survey visit number, A - F









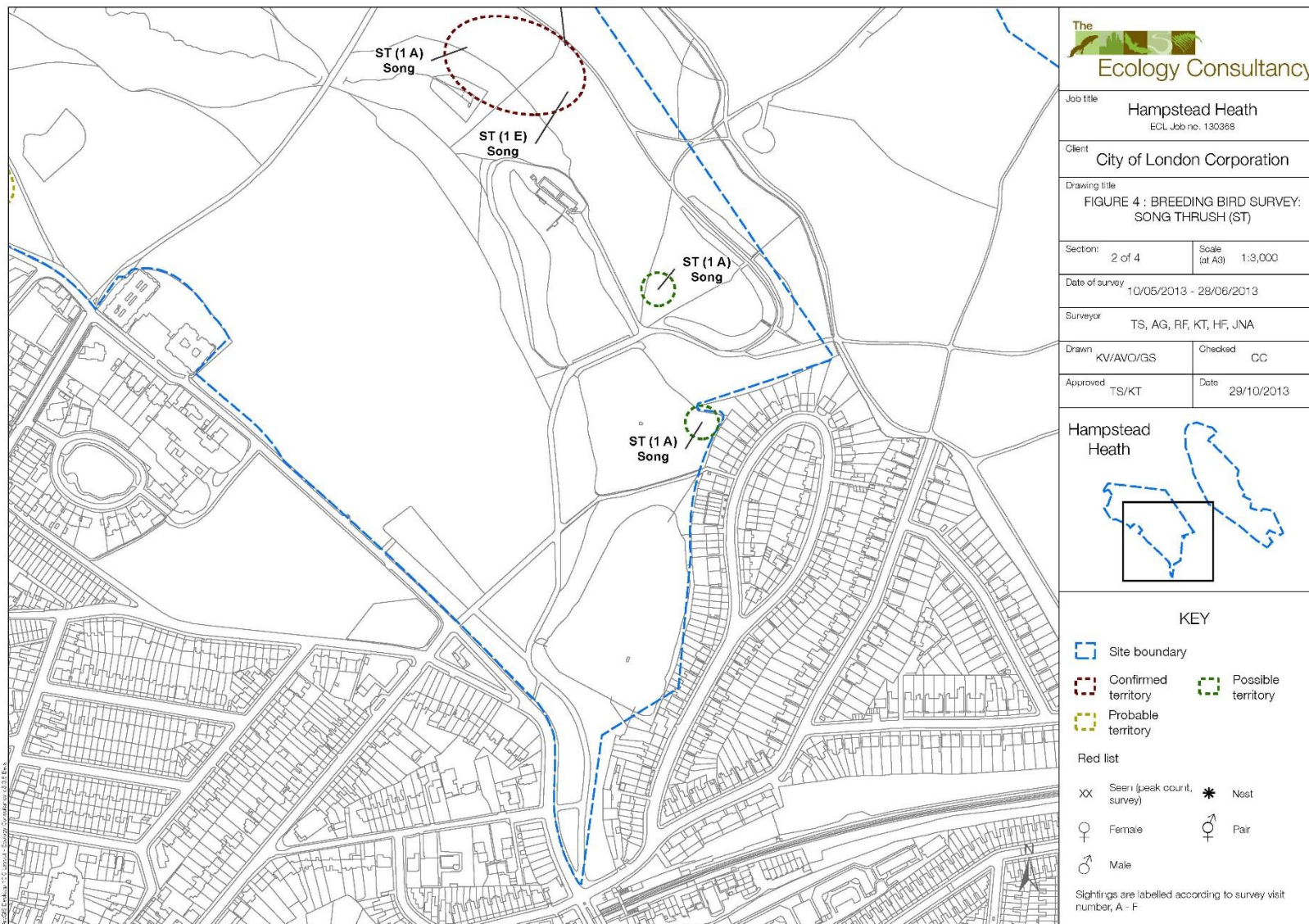
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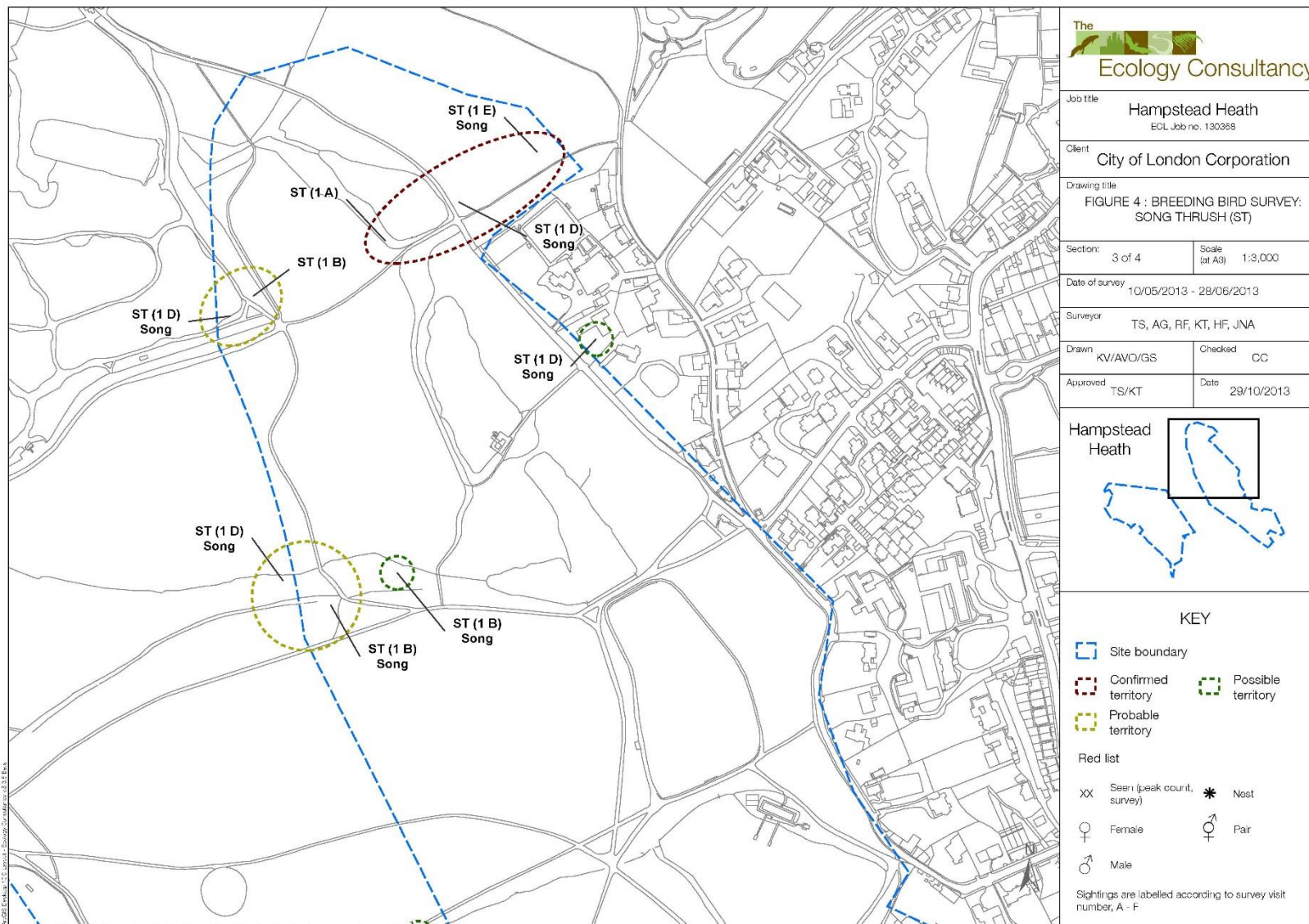
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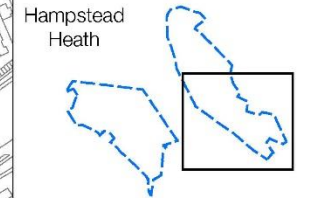
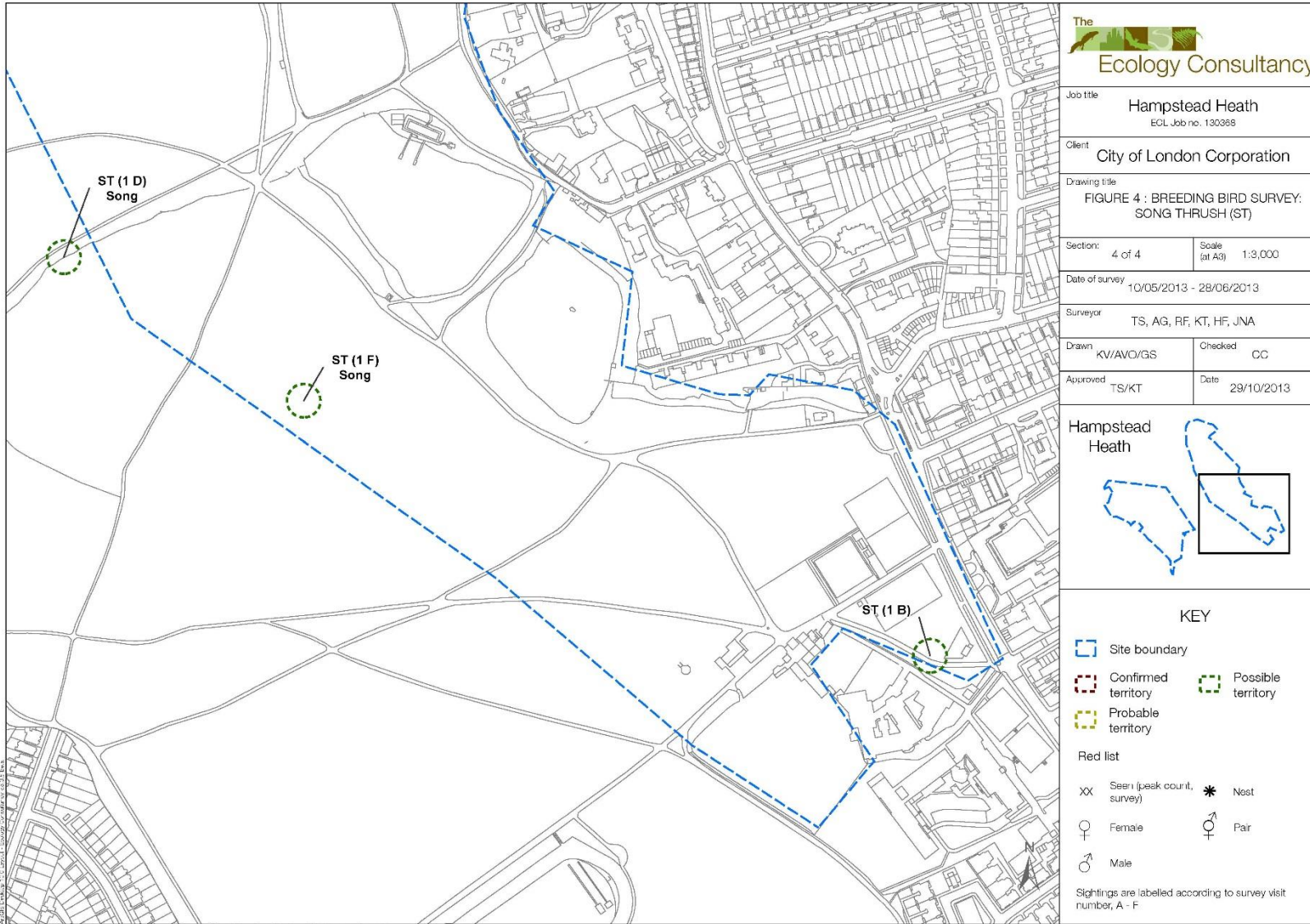
Red list

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- Male
- Nest
- Pair

Sightings are labelled according to survey visit number, A - F







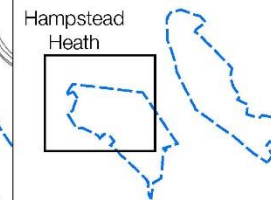
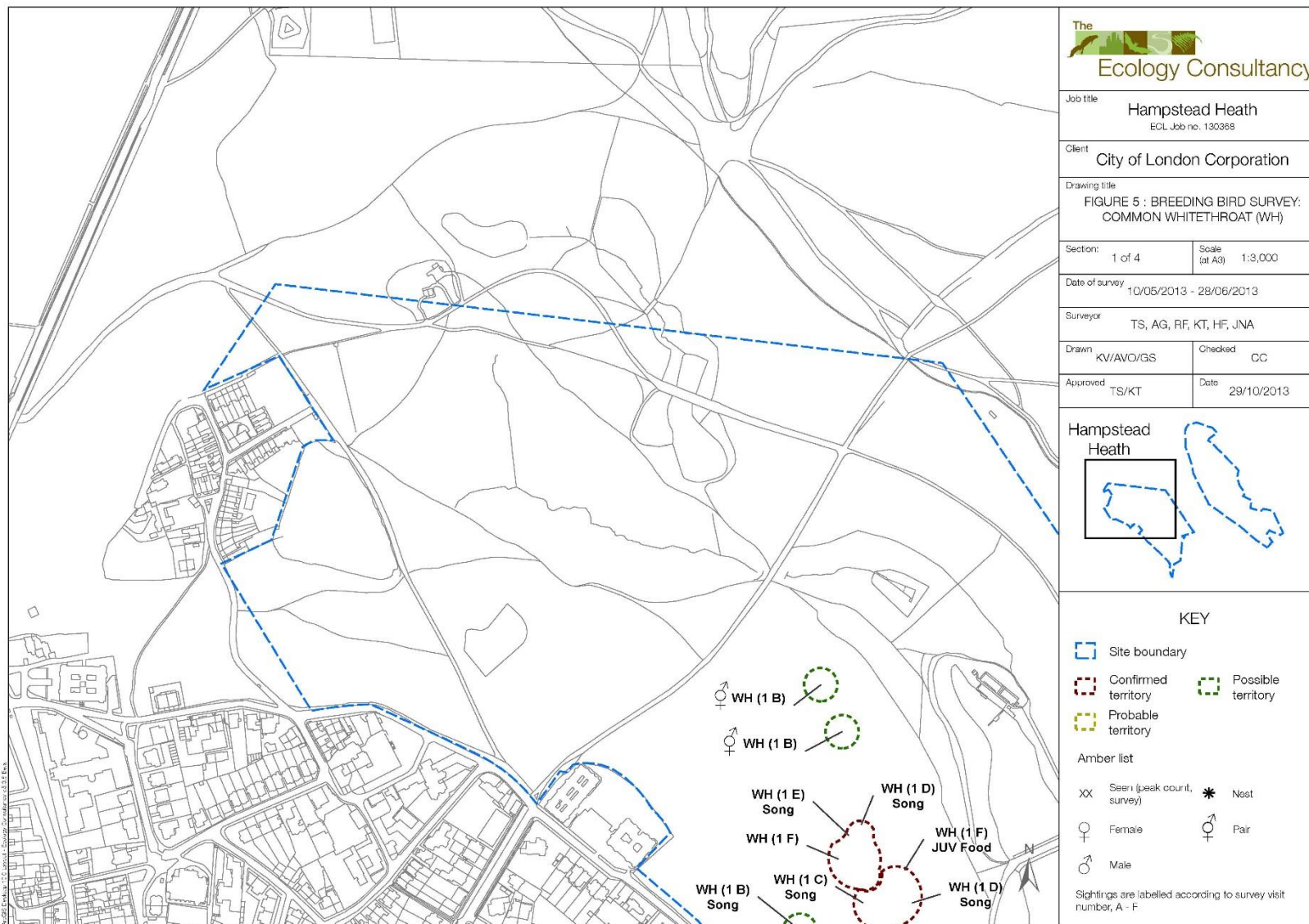
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Red list

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- Nest
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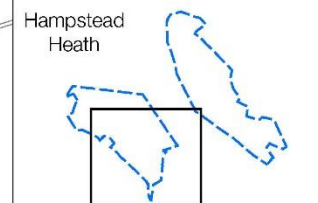
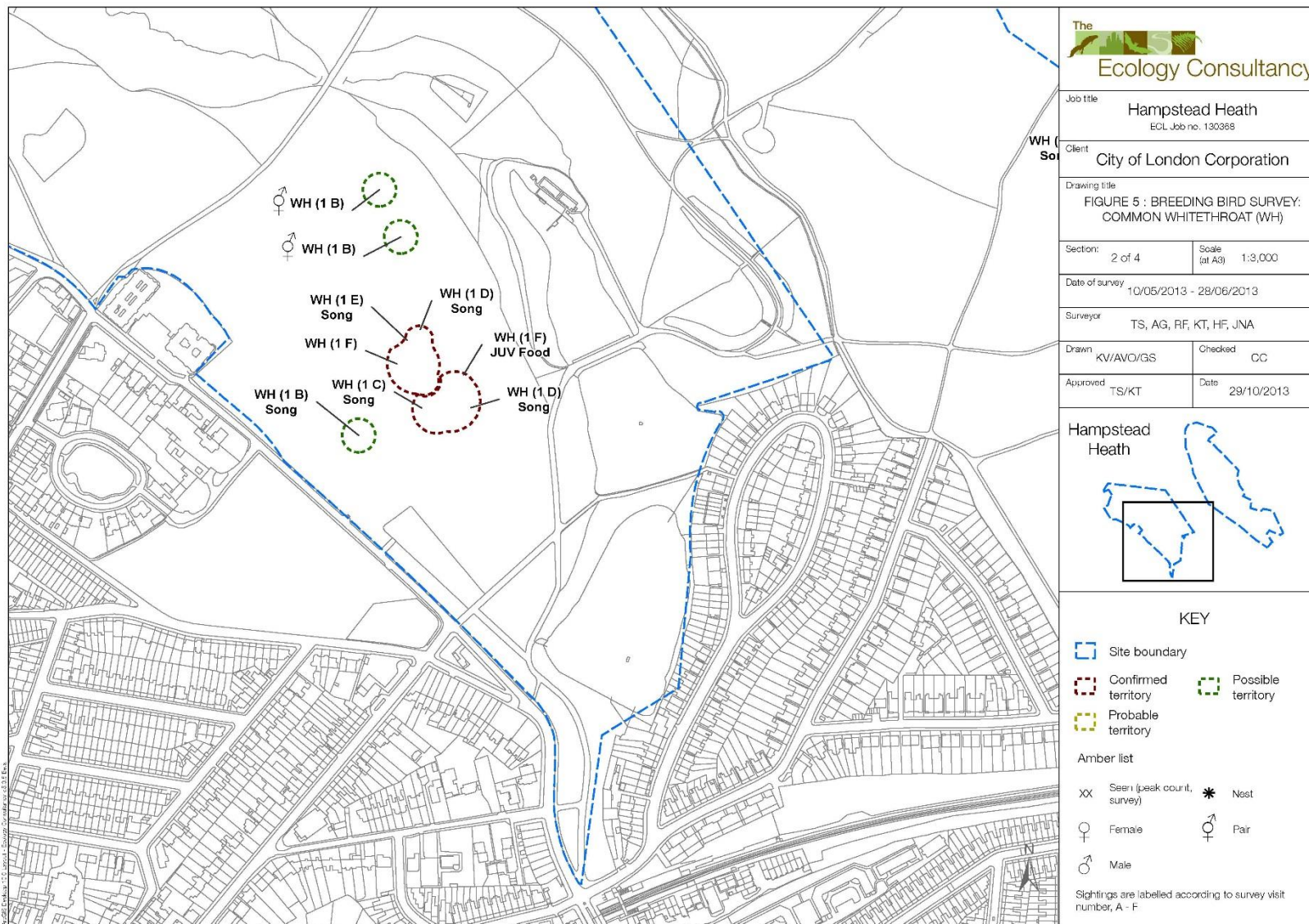
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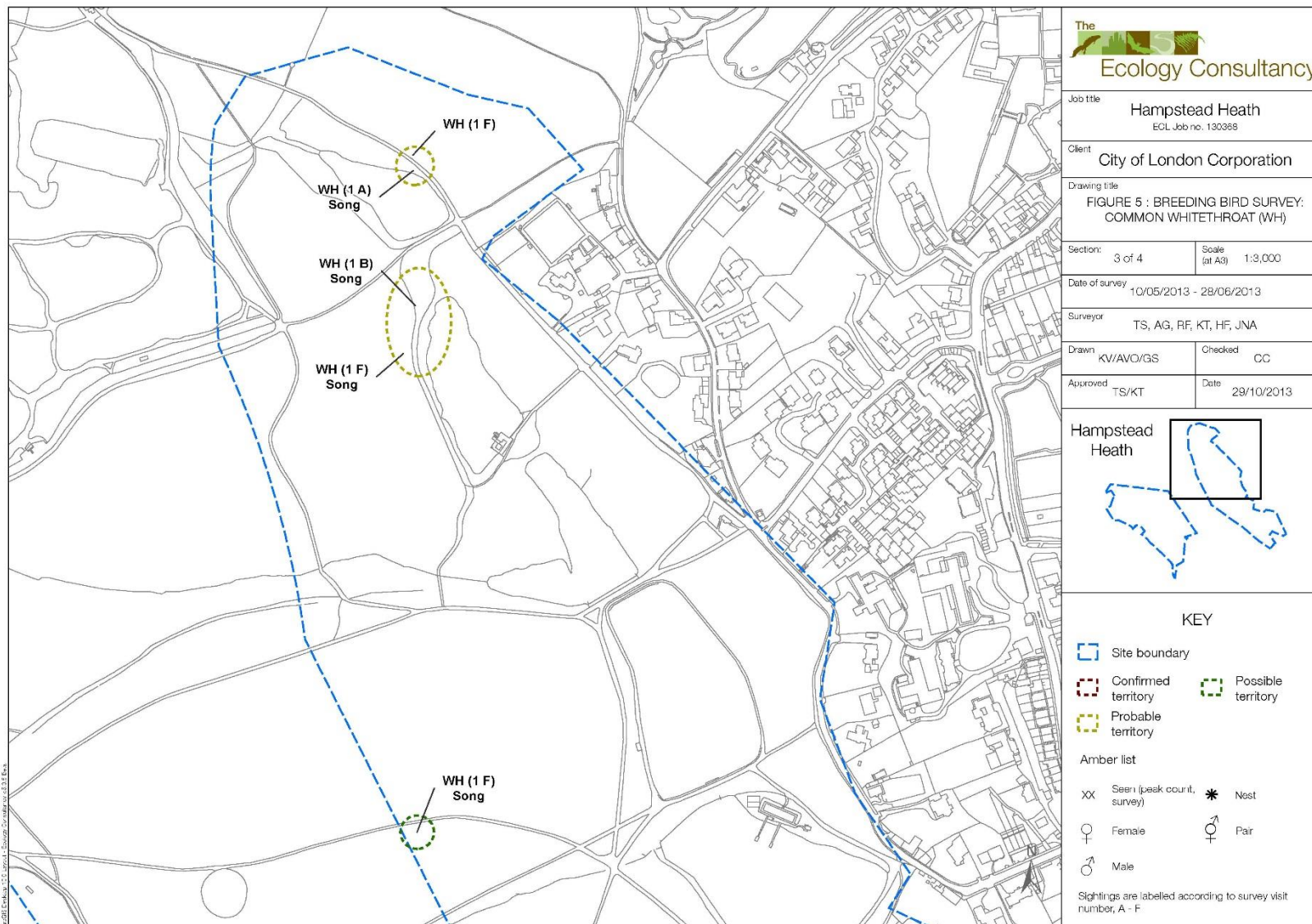
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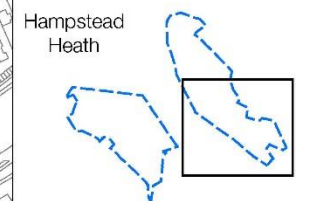
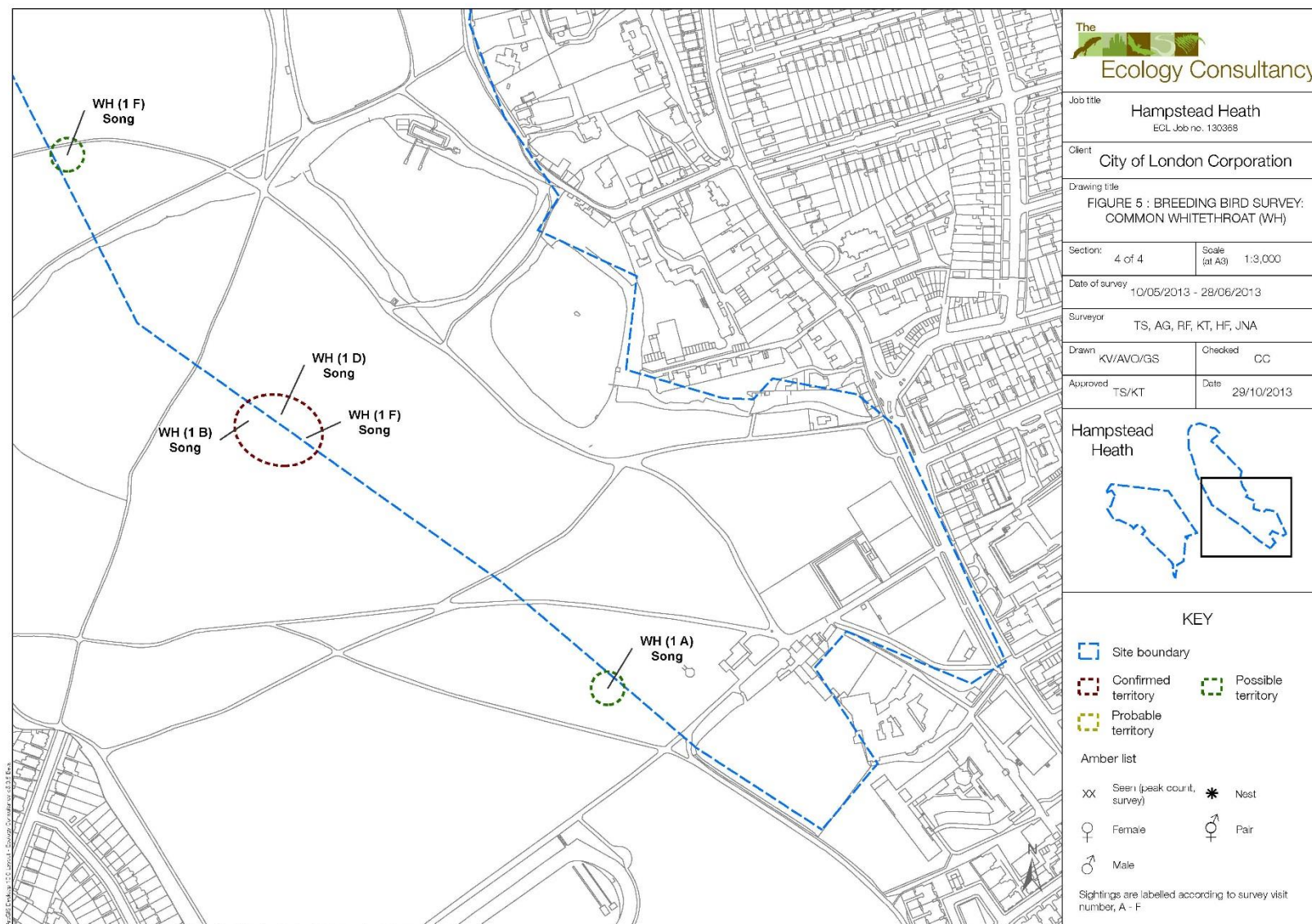
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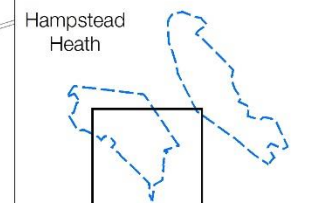
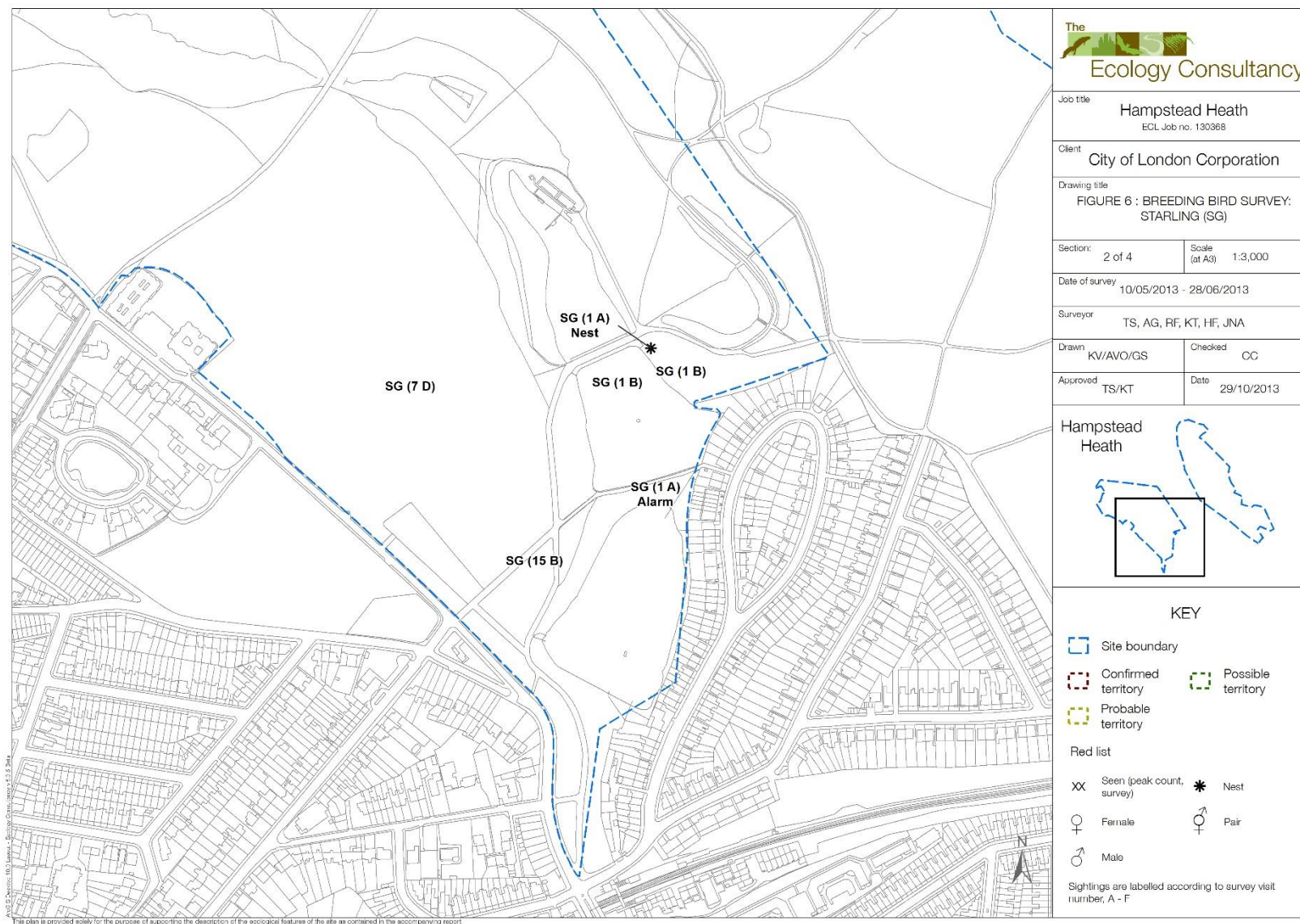
This map is provided solely for the purpose of supporting the conclusions of the ecological assessment of the development in the accompanying report.



KEY

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- Nest
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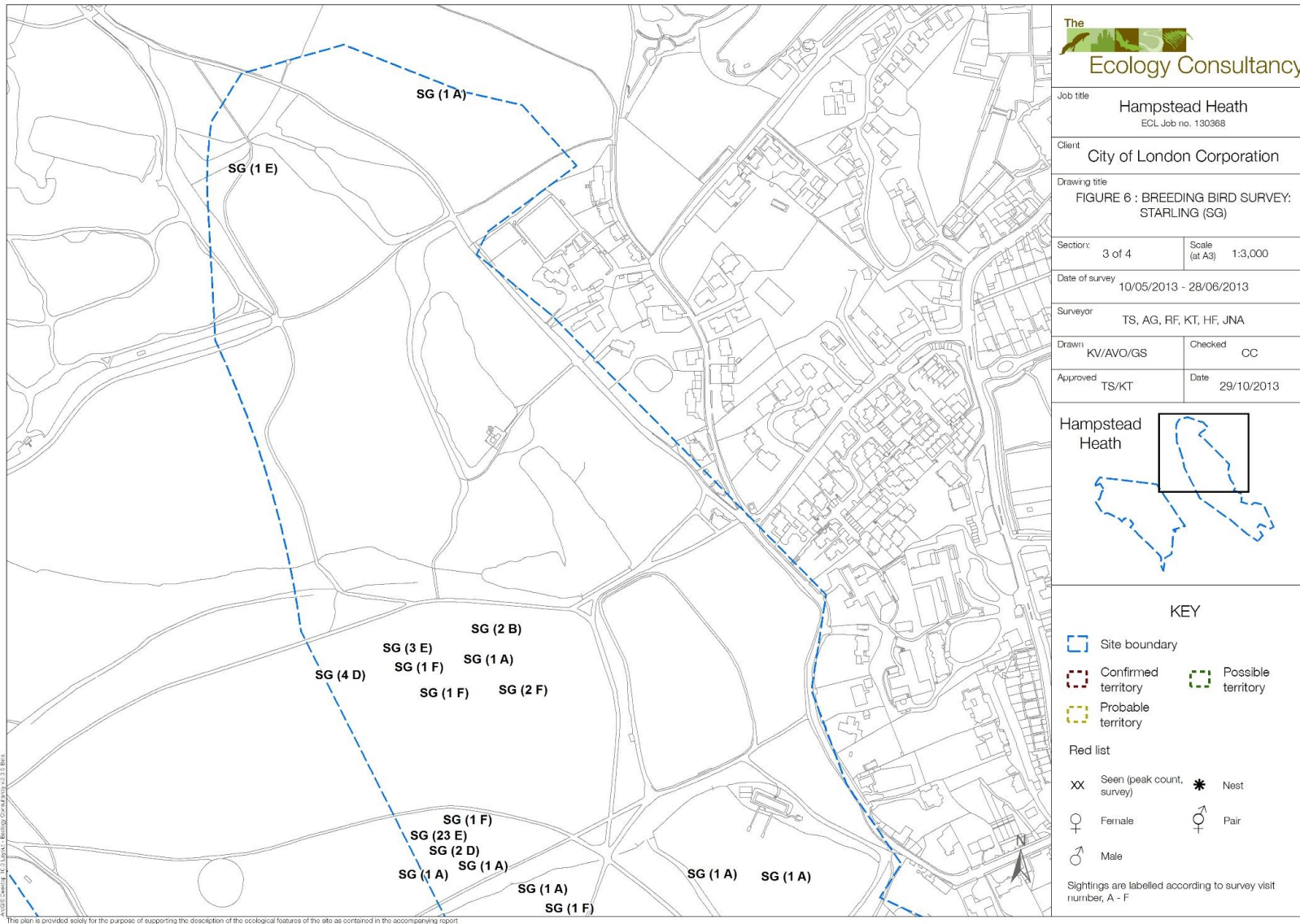
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- Red list
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- Nest
- Female
- Male
- Pair

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Appendix 2: Legislation and Policy

Legislation

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). Among other things, this makes it an offence to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy an egg of any wild bird;
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

Certain species of bird, for example the barn owl, black redstart, hobby, bittern and kingfisher receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young;
- Intentional or reckless disturbance of dependent young of such a bird.

Non-statutory conservation criteria

Birds of Conservation Concern

The UK's leading bird conservation organisations have worked together on the third quantitative review of the status of the birds that occur regularly here, updating the last review in 2002. A total of 246 species have been assessed against a set of objective criteria to place each on one of three lists – green, amber and red – indicating an increasing level of conservation concern. There are 52 species on the red list, 126 on the amber list and 68 on the green list. The red list has increased by 12 since 2002, with 18 species added but six moved from red to amber.

The UK's birds can be split in to three categories of conservation importance - red, amber and green.

Red is the highest conservation priority, with species needing urgent action. Amber is the next most critical group, followed by green.

Birds in the red and amber lists will be subject to at least one of the relevant factors listed below.

Red list criteria

- Globally threatened;
- Historical population decline in UK during 1800–1995;
- Severe (at least 50%) decline in UK breeding population over last 25 years, or longer-term period (the entire period used for assessments since the first BoCC review, starting in 1969); and/or,
- Severe (at least 50%) contraction of UK breeding range over last 25 years, or the longer-term period.

Amber list criteria

- Species with unfavourable conservation status in Europe (SPEC = Species of European Conservation Concern);
- Historical population decline during 1800–1995, but recovering; population size has more than doubled over last 25 years;
- Moderate (25-49%) decline in UK breeding population over last 25 years, or the longer-term period;
- Moderate (25-49%) contraction of UK breeding range over last 25 years, or the longer-term period;
- Moderate (25-49%) decline in UK non-breeding population over last 25 years, or the longer-term period;
- Rare breeder; 1–300 breeding pairs in UK;
- Rare non-breeders; less than 900 individuals;
- Localised; at least 50% of UK breeding or non-breeding population in 10 or fewer sites, but not applied to rare breeders or non-breeders; and/or,
- Internationally important; at least 20% of European breeding or non-breeding population in UK (NW European and East Atlantic Flyway populations used for non-breeding wildfowl and waders respectively).

Green list

Species that occur regularly in the UK but do not qualify under any of the above criteria.

UK BAP

In 1994 the UK Government published its response to the Convention on Biological Diversity that it signed along with over 150 other nations at the Rio Earth Summit in 1992. Biodiversity – the UK Action Plan (HM Government 1994) and subsequent publications (e.g. UK Steering Group 1995) set out a programme for the national Biodiversity Action Plan (BAP), including the development of targets for biodiversity, and the techniques and actions necessary to achieve them. The national BAP includes lists of species that are of conservation concern, either because they are rare in an international or national context or have undergone serious declines in their populations in recent years. Species Action Plans have been prepared or are in preparation for a many of these species, whilst Habitat Action Plans are being produced for important or characteristic habitats identified in the plan.

REGIONAL AND LOCAL BAPs

The UK plan also encourages the production of local Biodiversity Action Plans at the County or District level (e.g. London).



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