



Brislington Meadows, Bristol ECOLOGICAL TECHNICAL APPENDIX G Breeding Bird Survey 2020

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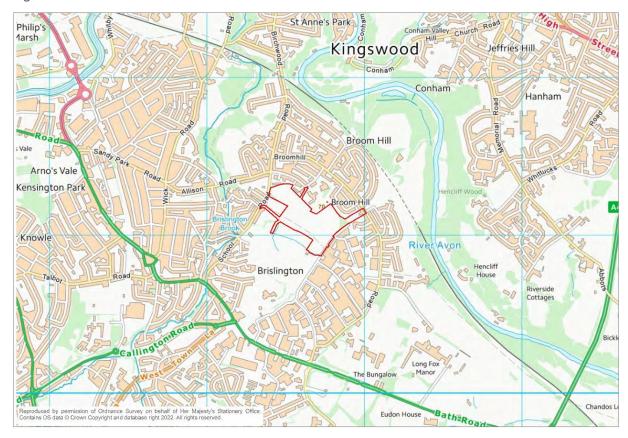
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1.0 Introduction

- 1.1 The Environment Partnership (TEP) was commissioned in August 2020, by Campbell Reith on behalf of Homes England, to complete an Ecological Impact Assessment (EcIA) for the site known as Brislington Meadows (hereafter referred to as 'the site').
- 1.2 Prior to TEP's appointment, WSP completed a Preliminary Ecological Appraisal (PEA) in September 2019 for the site on behalf of Homes England to inform a pre-planning application (ref 19/05220/PREAPP). Subsequent to this, breeding bird surveys were undertaken at the site by WSP in March to June 2020 commissioned by Homes England to inform the EcIA. This document details these breeding bird surveys.
- 1.3 The central grid reference of the site is approximately ST 626 711 and the location of the site is shown in Figure 1. The site comprises a mixture of grasslands, scrub, horse paddocks and broad-leaved woodland with connecting hedgerows. It is situated within an area surrounded by residential, industrial buildings and parkland within Brislington, a suburb located southeast of the City of Bristol. The River Avon circumnavigates the northern and eastern outskirts of the site.







2.0 Methods

- 2.1 The breeding bird survey was carried out applying methods based on the standard breeding bird survey and common bird census methods developed by the British Trust for Ornithology (BTO) (Bibby et al. 2000).
- 2.2 Three visits were completed between 23rd April and the 10th June 2020. The survey was undertaken during the optimum breeding bird survey period. There are no seasonal constraints associated with the survey.
- 2.3 All visits commenced at dawn and lasted approximately 2.5 hours. Weather recorded during each visit and survey start and stop times are detailed in Table 1. No constraints to the survey arose due to weather conditions.

Table 1. 2020 breeding bird survey details

Date(s)	Visit 1 - 23/04/20 Visit 2 - 12/05/20 Visit 3 - 10/06/20
Seasonal Constraints	
Weather	Visit 1 - Bright and sunny, gentle breeze Visit 2 - Bright and sunny, light frost Visit 3 - Overcast with light rain at the start of the survey
Survey Periods	Visit 1 - 06:23 - 09:00 Visit 2 - 05:45 - 08:15 Visit 3 - 05:30 - 08:45

- 2.4 Bird species and activity patterns were recorded and mapped using standard BTO symbology.
- 2.5 Bird species within the 100m surrounding the site boundary were also recorded during the survey, as a proportion of the bird's foraging or nesting habitat is likely to be within the site.



3.0 Results

Desk Study

- 3.1 Desktop records of protected or notable bird species recorded within a 2km radius of the site were identified from a review of the desk study undertaken by WSP in 2020. Bird species classed as notable are those listed on any of the following:
- 3.2 Schedule 1 of the Wildlife and Countryside Act 1981, as amended (WCA1);
 - Species of principal importance under Section 41 of the Natural Environment and Communities Act 2006 (SPI);
 - Red and Amber listed Bird of Conservation Concern (BoCC) species (Stanbury *et al.* 2021) (BRd/ BAm); and
 - Bird species listed on the Bristol Biodiversity Action Plan Priority Species List (LBAP).
- 3.3 The desk study returned 36 different notable species within 2km of the site. These are listed in Table 2. Seven of these species are listed under Schedule 1 of the Wildlife and Countryside Act 1981 (WCA1). However, it is important to note that the specific habitat needed for some of these species to breed is not present on site. Fieldfare and redwing, two WCA1 species recorded are winter migratory species. They very rarely breed in the UK, and if so, only in the north of Scotland.
- 3.4 Of the species identified from the desk study, eight BoCC species (using the notable species criteria from before December 2021); dunnock, herring gull, house sparrow, lesser black-backed gull, song thrush, starling, stock dove and willow warbler were recorded at the site and/or 100m survey buffer during the 2020 breeding bird survey.
- 3.5 The fifth review of BOCC (BOCC5) was released on 1st December 2021 (Stanbury *et al.*, 2021). The desktop data returned therefore does not include records for species newly added to this list.
- 3.6 As of December 2021, a further five species are considered notable that were recorded on the 2020 breeding bird survey: greenfinch (BRd), rook (BAm), whitethroat (BAm), woodpigeon (BAm) and wren (BAm). These species were all previously green listed species. All legislation notation within the report is correct in regards to the BoCC5.

Table 2: Notable bird species records identified within 2km of the site from with the past decade

Name of Species	No. of Records	Status
Barn owl	1	WCA1
Black-headed gull	2	BAm
Bullfinch	6	SPI, BAm, LBAP
Common sandpiper	2	BAm



Name of Species	No. of Records	Status
Common crane	1	BAm
Common gull	1	BAm
Crossbill	1	WCA1
Cuckoo	1	SPI, BRd, LBAP
Dunnock	2	SPI, BAm, LBAP
Fieldfare	1	WCA1, BRd
Grey wagtail	8	BAm
House sparrow	3	SPI, BRd, LBAP
Herring gull	2	SPI, BRd
Kingfisher	5	WCA1, BAm
Kestrel	3	BAm
Lesser black-backed gull	4	BAm
Lesser spotted woodpecker	1	SPI, BRd
Mallard	3	BAm
Marsh tit	1	SPI, BRd, LBAP
Meadow pipit	1	BAm
Mistle thrush	4	BRd
Mute swan	6	BAm
Peregrine	8	WCA1, BAm
Red kite	2	WCA1
Redstart	1	BAm
Redwing	5	WCA1, BAm
Reed bunting	3	SPI, BAm, LBAP
Sedge warbler	2	LBAP, BAm
Sand martin	1	BAm, LBAP
Song thrush	5	SPI, BAm, LBAP
Stock dove	6	BAm
Starling	2	SPI, BRd, LBAP
Swallow	4	LBAP
Swift	13	BRd, LBAP
Willow warbler	4	BAm
Woodcock	2	BRd

Status Key: WCA1 = Schedule 1, S41 = Section 41; BRd = BoCC Red List; BAm = BoCC Amber List; LBAP = Local Biodiversity Action Plan.

Field Survey

- 3.7 Survey results over the three survey visits are summarised in Table 3. Survey results are illustrated at Drawings G7507.20.013 (Visit 1), G7507.20.014 (Visit 2) and G7507.20.015 (Visit 3).
- 3.8 A total of 27 bird species were recorded within the site boundary and 100m survey buffer during the 2020 breeding bird survey. No species unique to the survey buffer were recorded.



Table 3. Counts of bird species recorded during the 2020 breeding bird season, including conservation and likely breeding status.

Species	Visit 1		Visit 2		Visit 3		Status	Likely breeding btatus (nr. of pairs)	
- Cp - Co	Site	+buffer	Site	+buffer	Site	+buffer		Site	+buffer
Blackbird	6	11	5	5	6	7		C (1) Pr (2)	C (3) Pr (2)
Blackcap	3	6	5	5	6	7		Pr (5)	Pr (6)
Blue tit	5	5	6	7	8	10		C (1) Pr (1)	C (2) (Pr (1)
Carrion crow	2	2	1	1	1	1		C (1)	C (1)
Chiffchaff	6	9	5	6	4	5		C (1) Pr (4)	C (1) Pr (5)
Collared dove	2	2						Pr (1)	Pr (1)
Dunnock	3	3	4	4	4	7	S41, BAm, LBAP	Pr (3)	Pr (3)
Goldfinch	5	5	5	5	2	4		Pr (2)	Pr (3)
Great tit	11	11	6	7	2	3		Pr (3)	Pr (4)
Green woodpecker			1	1				Ро	Po
Greenfinch	5	5			2	2	BRd	Pr (2)	Pr (2)
Grey heron			1	1	1	1		N	N
Herring gull			2	4	10	10	S41, BRd	N	N
House sparrow	2	2	1	2	2	3	S41, BRd, LBAP	C (1 colony)	C (2 colonies)
Jackdaw	1	1						N	N
Lesser black- backed gull					3	3	BAm	N	N
Long-tailed tit			2	2	3	3		Pr (1)	Pr (1)
Magpie	3	3	4	4	5	5		C (1) Pr (1)	C (1) Pr (1)
Robin	5	6	8	11	1	1		C (2) Pr (5)	C (2) Pr (6)
Rook			1	1			BAm	N	N
Song thrush	3	4	3	4	4	5	S41, BAm, LBAP	C (1) Pr (2)	C (1) Pr (3)
Starling	11	11	3	3	1	1	S41, BRd, LBAP	Ро	Po
Stock dove	1	1					BAm	N	N
Whitethroat			1	1	4	4	BAm	Pr (1)	Pr (1)
Willow warbler	3	3	2	2			BAm	Pr (2)	Pr (2)
Woodpigeon	4	4	1	1	1	2	BAm	C (1)	C (1)
Wren	3	6	5	8	7	7	BAm	C (1) Pr (5)	C (1) Pr (6)
Total	20	20	22	22	21	21			

Status Key: WCA1 = Schedule 1, SPI = NERC Section 41 Species of Principal Importance; BRd = BoCC Red List; BAm = BoCC Amber List; LBAP = Local Biodiversity Action Plan.

Likely Breeding Status Key: C = Confirmed, Pr = probably breeding within site, Po = possibly breeding within site, N = not breeding within site



- 3.9 Ten species were confirmed as breeding within the site and 100m site buffer. Notable species confirmed to be breeding include: house sparrow (one colony within the site and a further colony in the 100m buffer), song thrush (one confirmed pair within the site), woodpigeon (one confirmed pair within the site) and wren (one confirmed pair within the site).
- 3.10 Nine species were assessed as probable breeders on site and within the 100m site buffer. Notable species include: dunnock (three probable pairs within the site), greenfinch (two probable pairs within the site), whitethroat (one probable pair within the site) and willow warbler (two probable pairs within the site).
- 3.11 Notable possible breeding species include starling.
- 3.12 Six species were assessed as not breeding within the site or surrounding area.

Incidental Sightings

- 3.13 Incidental sightings of birds were also recorded during other visits undertaken to the site. These include:
 - Blackbird;
 - Blue tit;
 - Buzzard in flight;
 - Carrion crow;
 - Dunnock;
 - Goldfinch;
 - Great tit;
 - Jackdaw;
 - Jay woodland W2;
 - Kestrel in flight over the site and Victory Park;
 - Long tailed tit;
 - Magpie;
 - Peregrine (Sch1) in flight over the site and Victory Park and perched on the pylon;
 - Raven perched on the pylon;
 - Robin;
 - Tawny owl (BAm) (heard within Victory Park, adjacent to field F4);
 - Wood pigeon (BAm); and
 - Wren.



4.0 Discussion

Evaluation of Site Value for Breeding Birds

- 4.1 The 27 bird species recorded within the site boundary and 100m survey buffer represent a low to moderate species diversity. Most breeding species were judged to be using the site itself rather than the 100m survey buffer which indicates that there are habitats of value to breeding birds within the core site.
- 4.2 Fuller (1980) devised a method of classifying the ornithological interest of sites for conservation based on three site attributes: population size, rarity and diversity.
- 4.3 No significant breeding bird concentrations (i.e. 1% or more of the national breeding population) or nationally rare breeding bird species (i.e. between 1 and 1,000 breeding pairs) were recorded during the survey.
- 4.4 The total number of confirmed, probable and possible breeding bird species recorded within a site also indicates its significance. Table 4 includes the breeding diversity criteria devised by Fuller.

Table 4: Significance of the total number of breeding species recorded at a site

Local	County	Regional	National
25-49	50-69	70-84	85+

- 4.5 Based on the above criteria, the 21 confirmed, probable, and possible breeding bird species recorded within the site itself indicate that this site is below local significance for breeding birds.
- 4.6 Thirteen of the species recorded on the survey were notable species, all of them were recorded within the site itself. Four of these thirteen notable species, herring gull, lesser black-backed gull, rook and stock dove were assessed to not be breeding on the site or within the surrounding area.
- 4.7 An all-encompassing assessment of the value of the site must be based on all the following factors (Table 5). It is concluded that the site is of **below local significance** for breeding birds.

Table 5: Assessment of the value of the site for breeding birds

Evaluation Factor	Result
Result of the Fuller species richness assessment	21 species - below the numerical bounds for local importance.
Proportion of birds that were only possible breeders	Two out of 21 breeding species were possible breeders - almost all breeding species were probable or confirmed.



Evaluation Factor	Result
The extent and quality of nesting habitat	The broadleaved woodland, scrub, scattered trees and built structures throughout the site create opportunities for nesting birds. However, the majority of the site is poor semi-improved or semi-improved grassland which does not provide nesting habitat for many breeding bird species.
Range of BoCC species recorded	Thirteen BoCC species recorded during the survey within the site.
Abundance of BoCC species	The abundance of BoCC species was generally low.

Individual Species Assessment

Species recorded during the 2020 field surveys

- 4.8 Stock dove (BAm) was judged not to be breeding onsite as they were only recorded once on April 23rd flying away from the site. Herring gull (S41, BRd) and lesser blackbacked gull (BAm) were also assessed not to be breeding onsite as the site lacks the appropriate habitat, in urban inland areas the species breed on large building roofs.
- 4.9 Dunnocks (SPI, BAm) were recorded throughout the site. Three pairs were assessed to be probably using the site to breed. The species breeds within hedgerows scrub and woodland edges, nesting within dense cover. The appropriate habitat is found throughout the site at the field boundaries.
- 4.10 Two pairs of willow warbler (SPI, BAm) were assessed to be probable breeders on the site. They were most often recorded within the vegetation of the field boundaries. Willow warblers nest on the ground at the edges of trees and shrubs and require dense vegetation for cover. The areas of scrub on the site provide this habitat.
- 4.11 One pair of song thrush (SPI, BAm, LBAP) was confirmed to be breeding at the east of the site. There is a section of dense continuous scrub at this area of the site which also has scattered broadleaved trees within it. It is likely the song thrush pair were using this area to nest as they show preference for dense, tall shrub but will nest within hedgerows, all these habitats being found within the site. A further two pairs were assessed to probably be breeding within the site and a further pair was assessed to be probably breeding within the 100m buffer.
- 4.12 One colony of house sparrows (SPI, BRd, LBAP) was recorded at the very north of the site and confirmed to be a breeding species. The colony was repeatedly recorded in the dense scrub adjacent to the rear gardens of the houses on St. Cuthbert's Drive and was determined to be nesting here. A second colony of house sparrows was recorded in the 100m buffer to the east of the site in the gardens and houses of Condover Road. House sparrows will nest in buildings (or other manmade structures with crevices and holes), hedges and occasionally taller vegetation if the cover is dense.
- 4.13 Starlings (SPI, BRd, LBAP) were recorded using the site during the surveys and were judged to be a possible breeding species. No evidence of probable or confirmed



breeding was recorded, however there is suitable nesting habitat within both the site and 100m buffer. This species nests close to human settlements in buildings (readily using nest boxes) and cavities of trees.

- 4.14 Greenfinch (BRd) was determined to be a probable breeding species within the site.

 Two pairs were recorded at the north of the site within the area of scrub, the scattered trees within the scrub provide the species nesting opportunities.
- 4.15 Wren (BAm) was recorded throughout the site. A pair of wrens was confirmed to be breeding at the very south of the site, a further five probable pairs were judged to be breeding within the site and one pair in the buffer to the south. The species was repeatedly recorded within the hedgerows onsite. Wren nesting sites are highly variable; the hedgerows, scrub and scattered trees throughout the site all provide nesting opportunities. The surrounding area with gardens and buildings also provide habitat for potential nesting.
- 4.16 Woodpigeons (BAm) were also recorded throughout the site. A pair was confirmed to be breeding at the east of the site within the area of semi-natural broad-leaved woodland. Woodpigeon nest in any tree, bush or hedge usually at a height between three and five metres, this means there is potential nesting habitat throughout the site.
- 4.17 Whitethroats (BAm) nest close to the ground preferring thick cover such as bramble and other briars, the scrub onsite provides this habitat. One pair was judged to be probably breeding at the south of the site.
- 4.18 Five birds of prey tawny owl (BAm), kestrel (BAm), buzzard, raven and peregrine (Sch 1) were recorded incidentally to the breeding bird survey. No evidence suggests these species breed within the site. Regular checks of the pylon (particularly favoured by ravens and occasionally peregrine) were undertaken during various site visits between July 2020 and January 2022 and no nest or nesting activity was observed. Suitable nest sites for owls are limited, with only one tree on the south boundary identified to have suitability. Aerial inspection found no evidence of nesting. No pellets or other residual evidence of birds of prey were discovered. The site would, in combination with the adjacent Victory Park / Brislington Meadows SNCI to the south and Eastwood Farm to the north, provide foraging opportunities for these species.

Species recorded by the desktop study or other incidental records

4.19 Bristol Regional Environmental Records Centre (BRERC) records included 26 records for grasshopper warbler (SPI, BRd, LBAP) in a 2km radius of the site - all but one of these records were from Stockwood Nature Reserve and are more than a decade old, dating from between 1994 to 2004. An anecdotal sighting of grasshopper warbler was reported on a social media platform relating to the site in 2021. This species is a summer visitor that are found in a wide range of open habitats, in both wet and dry settings with the common feature being thick (usually tussocky) herbage with scattered bushes or saplings: fens, marshes, wetland margins, rough grassland,



moorland and heathland, thickets, hedgerows, young plantations, forest clearings and woodland edges. They nest on or just off the ground, well hidden in thick vegetation. The habitat onsite does therefore provide opportunities for nesting but the high level of disturbance from dog walkers and other members of the public utilising the site reduces suitability for nesting. This species was not recorded during the 2020 breeding bird survey, nor was any other 'ground nesting' species.

- 4.20 Grasshopper warbler is a Red List Bird of Conservation Concern due to a severe decline in UK breeding population (68% decline in the past 25 years and a 93% longer term decline). There are currently an estimated 16,000 breeding pairs in the UK. Grasshopper warbler is also a S41 species that is assessed as in need of high priority action. Locally, grasshopper warbler is considered to be 'uncommon' (BRERC Status). The species is listed on the Local Biodiversity Action Plan.
- 4.21 BRERC has 153 records for kestrel (BAm) within a 2km radius of the site and several anecdotal sightings were posted by members of the public to a social media platform relating to the site. The species is typically found in open country with suitable nest sites, from rural to urban and industrial, wetland to open woodlands. Kestrels avoid areas of dense forest, treeless wetlands and land over 480m. A wide range of sites are used for nesting including ledges on a rock face, cliff or large building, other sheltered sites on human artefacts (ruins, bridges or pylons). They also use old corvid nests and tree hollows and will readily use nest boxes. The same nest site is commonly used in successive years. The habitat onsite is suitable but limited tree nests are preferentially above 1.5m and buildings above 8m. Kestrel was recorded incidentally to other site surveys through the course of the EcIA but was not recorded during the 2020 breeding bird survey and is not considered likely to nest within the site.
- 4.22 Nationally, kestrel is an Amber List Bird of Conservation Concern, this is due to a moderate decline in UK breeding population (33% decline in the past 25 years and a 46% longer term decline). There are currently an estimated 46,000 breeding pairs in the UK. Locally, kestrel is considered to be 'fairly common/ declining?' (BRERC Status).



5.0 Reference and Further Reading

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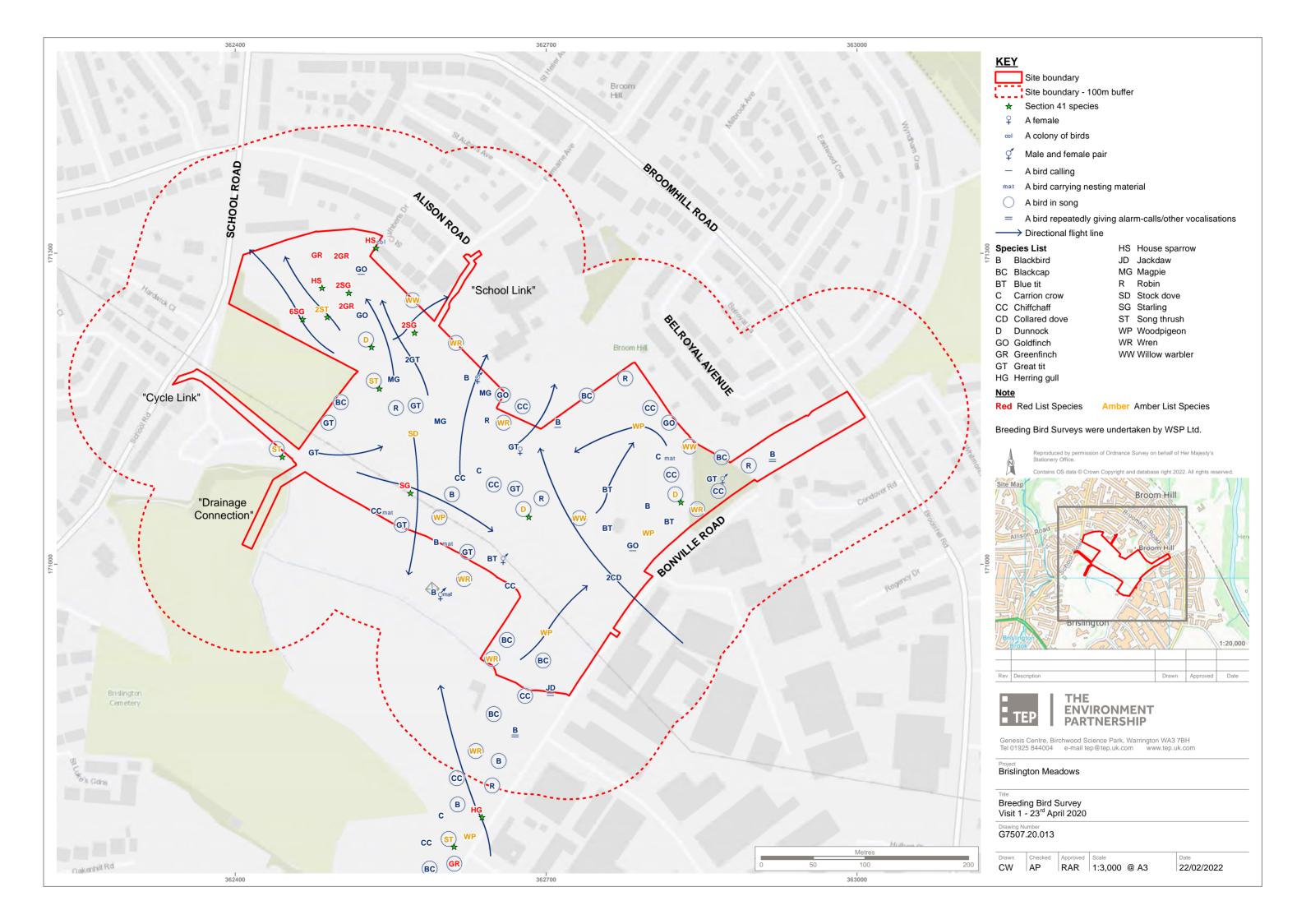
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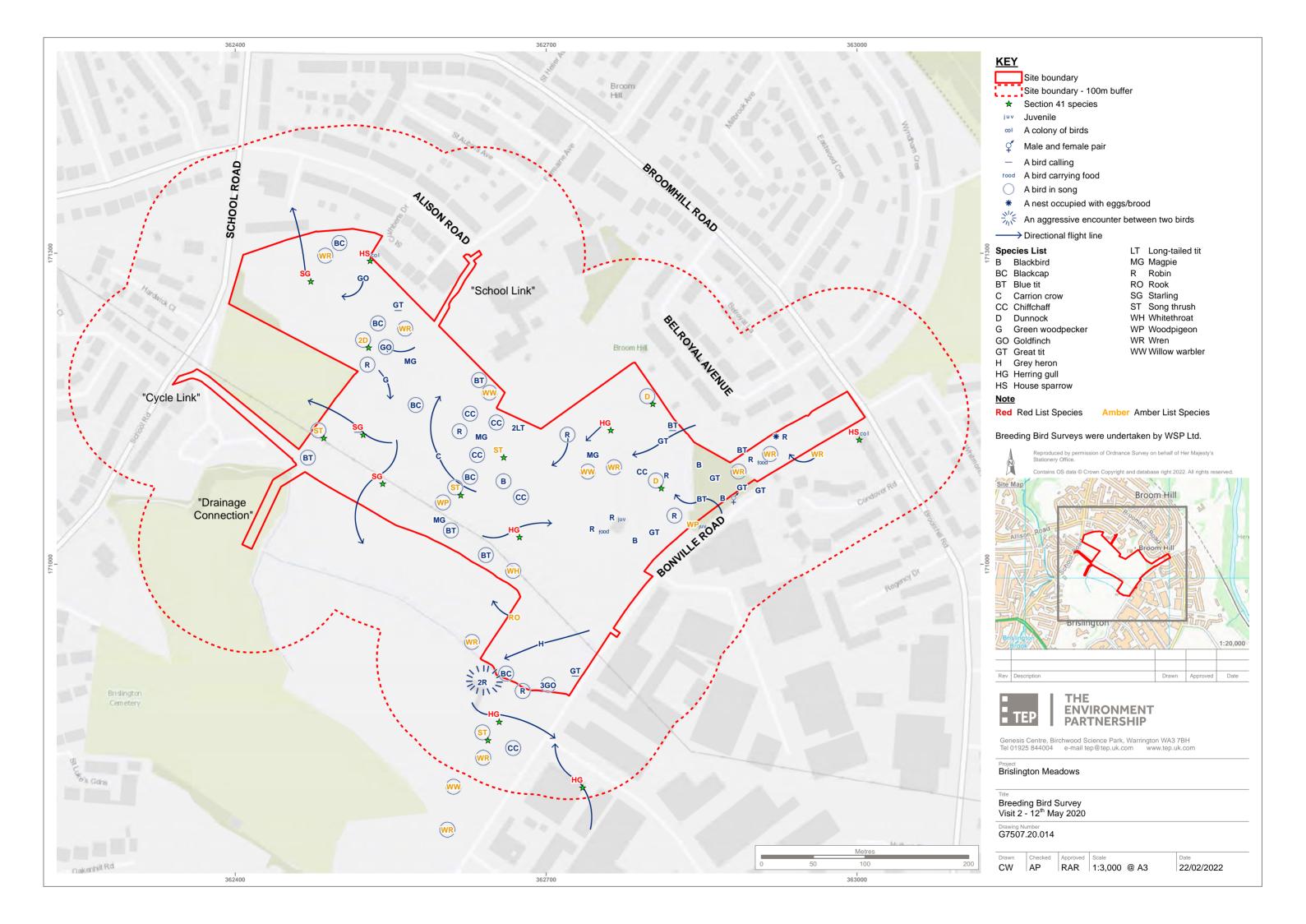
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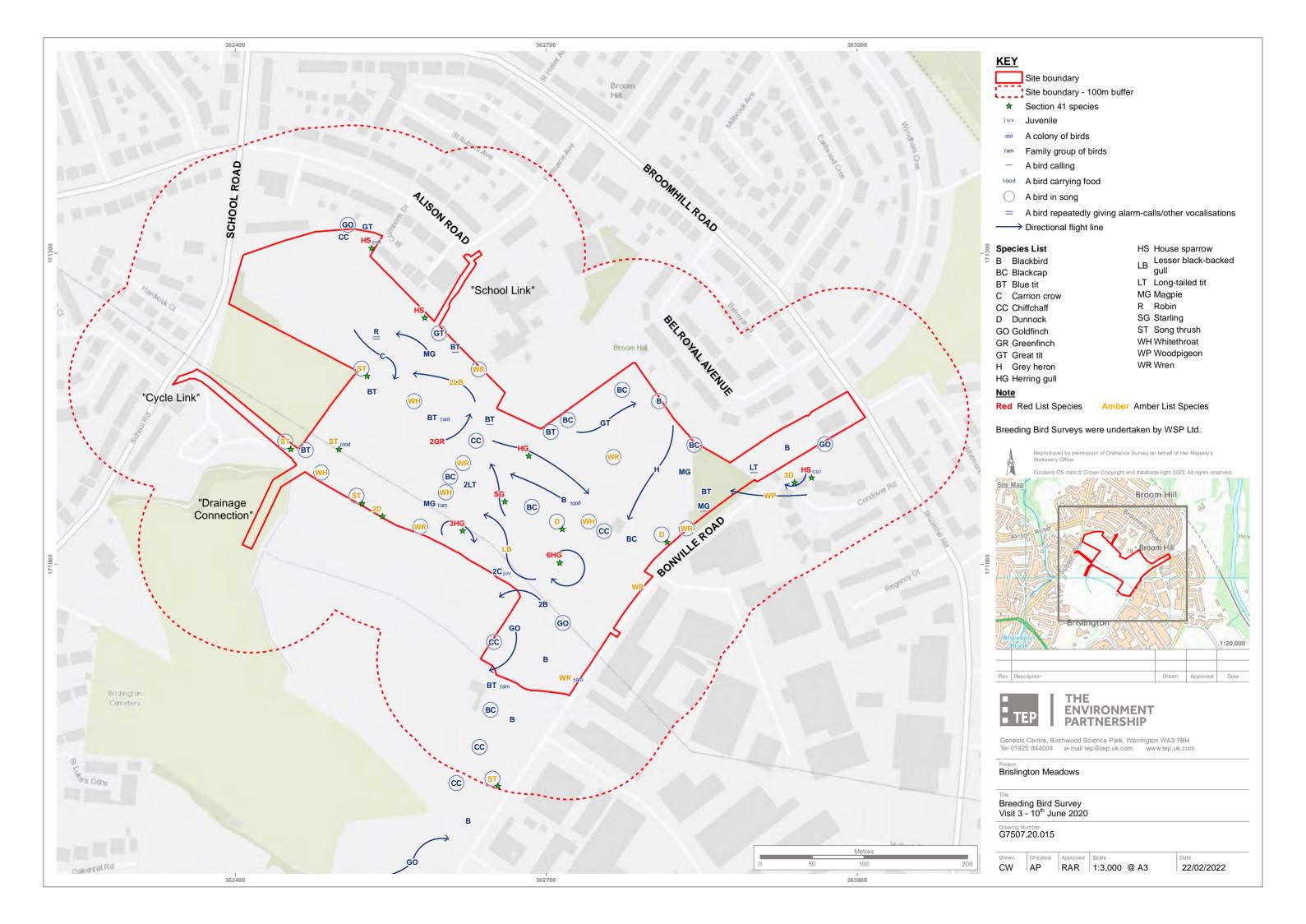
G7507.20.014 Breeding Bird Survey Visit 2 – 12.05.2020

G7507.20.015 Breeding Bird Survey Visit 3 – 10.06.2020

Drawings are digitised by TEP from WSP field data, verified with WSP field surveyors.









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