BUROHAPPOLD ENGINEERING

Mayfield Regeneration Development

Black Redstart and Breeding Bird Survey Report

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Revision 00

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date	**29/11/2017**

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Glossary

Term	Definition
BBS	Breeding Bird Survey
BTO	British Trust for Ornithology
CIEEM	Chartered Institute of Ecology and Environmental Management
CRoW	Countryside and Rights of Way
GMEU	Greater Manchester Ecology Unit
JNCC	Joint Nature Conservation Committee
NERC	Natural Environment and Rural Communities
RSPB	Royal Society for the Protection of Birds
WCA	Wildlife and Countryside Act

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1 Introduction

1.1 Background

BuroHappold Engineering was instructed to carry out an ecological assessment that included a black redstart survey and breeding bird survey of a site in central Manchester at and around the former Mayfield Station complex, hereafter referred to as the 'site'.

The site is proposed for re-development, including demolition of the majority of existing structures on the site, refurbishment of some of the older buildings, and modification of the retaining walls along the River Medlock.

The site partially falls within the Black Redstart Priority Area. This identifies an area in central Manchester where the black redstart (*Phoenicurus ochruros*) has been recorded. This species is a rare breeder, passage migrant and winter visitor with a small population concentrated in London, Sheffield, Liverpool and the West Midlands. There are also records of black redstarts breeding in central Manchester. A Species Action Plan (Greater Manchester Biodiversity Project 2009) aims to maintain a breeding population in Greater Manchester.

This report details the results of the black redstart and breeding bird survey and evaluates the results in the context of the proposed re-development of the site, making recommendations for mitigation and/or any further survey work as required.

1.2 Site Description

The site boundary includes an area of approximately 9.1ha, comprising a series of buildings that are predominantly commercial or light industrial units and associated areas of hard and soft landscaping. Some of the existing buildings are still occupied whilst others, including the station, have been disused for many years.

The site is surrounded on all sides by dense built-up areas, with tall buildings and busy roads. Manchester Piccadilly rail station is immediately to the north and the River Medlock flows east to west through the centre of the site.

1.3 Aims

The purpose of the black redstart and breeding bird surveys were to:

- determine if black redstart are using the site for breeding and/or foraging;
- obtain an understanding of the sites function for breeding birds;
- evaluate the assemblage of birds; and
- evaluate the impact construction works and redevelopment would have on breeding birds.

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1.4 Legislative and Policy Context

All wild species of breeding birds and their nests are protected under Part 1 of the Wildlife and Countryside Act (WCA) 1981, as amended by later legislation including the Countryside and Rights of Way (CRoW) Act 2000. This legislation applies in England and Wales.

Part 1 (Section 1:1) of the WCA states that:

'If any person intentionally,

(a) kills, injures or takes any wild bird;

(b) takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or

(c) takes or destroys an egg of any wild bird,

he shall be guilty of an offence.'

Part 1 (Section 1:5) of the WCA (amended by the CRoW Act 2000) refers to specific birds listed on Schedule 1 of the WCA, and states that:

'If any person intentionally or recklessly,

(a) disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or

(b) disturbs dependent young of such a bird,

he shall be guilty of an offence and liable to a special penalty.'

Schedule 1 includes birds such as barn owl (*Tyto alba*), black redstart, wood lark (*Lullula arborea*) and Cetti's warbler (*Cettia cetti*). Please refer to the WCA for a complete list of Schedule 1 species.

Please note: the above text provides a summary of the legislation in relation to birds and the original Acts and amendments should be referred to for complete details. A summary of relevant legislation is presented in Appendix C.

1.5 Conservation Status

A number of criteria are available to determine the conservation status of species recorded. These include:

1.5.1 Birds of Conservation Concern 4 (Eaton et al. 2015)

Under this approach bird populations are assessed using quantitative criteria to determine the population status of each species, and then placed on one of three lists: red, amber or green. Red list species are of high conservation concern, having declined by 50% or more in population or breeding range in the last 25 years. Amber listed species are of medium conservation concern, having suffered between 25% and 49% reduction in breeding or non-breeding populations, breeding or wintering ranges. Green list species have a favourable conservation status.

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1.5.2 Section 41 Priority Species (former Biodiversity Action Plan species) (UK Biodiversity Steering Group 1995)

Local, regional and national biodiversity targets identify habitats and species, including birds, of conservation concern for which Action Plans have been devised to help safeguard the most threatened species. Of particular relevance to this survey are species listed within the Greater Manchester priority species lists.

1.5.3 Quality of Life Indicator Species

The Quality of Life index is a UK Government scheme to measure the changes in 15 headline indicators of sustainable development and quality of life. Within these 15 indicators are population, economic growth, health and the state of the environment. The wild bird index is a summary of the population trends of the more common native species that breed in the UK and is divided in to species groups, namely farmland and woodland species. The UK Government is committed to reversing these declines by 2020 and will use this indicator to assess its performance.

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2 Methods

2.1 Desk Study

Records of protected species within 1km of the site, including birds, were obtained from the Greater Manchester Ecology Unit (GMEU), which hold biological records for the ten district councils that make up Greater Manchester. In addition, and more specifically concerning the black redstart, the website of the Manchester Birding Forum (2017) was consulted, which has recent sightings of black redstart listed.

2.2 Breeding Bird Survey

The breeding bird survey was carried out by Principal Ecologist Paul Fisher (MCIEEM[1]) and Assistant Ecologist Abigail Case.

The survey methodology was based on the breeding bird survey (BBS) methodology devised jointly by the British Trust for Ornithology (BTO), the Royal Society for the Protection of Birds (RSPB) and the Joint Nature Conservancy Council (JNCC) (Gilbert *et al*. 1998). This methodology requires three visits to be made between late March and early July, with each visit being at least four weeks apart. The start and finish dates for a particular site will vary depending upon latitude and altitude. The first of these visits is required to scope the site, record the habitats and set up a route and survey approach. This was completed as part of an earlier scoping exercise, which established the distribution of habitat types and identified their potential function for breeding birds, allowing an appropriate survey methodology to be applied.

On each of the survey visits the following details were recorded:

- bird numbers, species, age and sex;
- habitats being used; and
- bird behaviour, e.g. singing, feeding, paying particular attention to evidence of breeding.

In keeping with the methodology, surveys began early in the morning and avoided poor weather conditions, which reduce visibility and can suppress bird activity.

The survey area was surveyed using a combination of transects and point observations. This involved following a predetermined route at a slow walking pace and longer periods of observations were made at strategic points. Sightings were registered on a basemap using standard BTO codes.

2.3 Black Redstart Survey

Black redstarts' breeding habitat includes industrialised sites, and built-up and/or derelict surroundings. The Mayfield site has many features that favour black redstart whose preferred feeding habitat is small sparsely vegetated areas with rubble, close to slow moving water and an area that is relatively undisturbed. The buildings are also ostensibly suitable as nesting habitat with vertical features and ledges as well as high singing posts.

[1] Full Member of the Chartered Institute of Ecology and Environmental Management

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The Greater Manchester Biodiversity Project (2009) proposed survey guidelines for habitat suitable for breeding. This requires three visits of two-hour survey effort, with at least one week between each visit in the optimum survey season (April to July inclusive) to establish evidence of breeding, which would be:

- nest site with young;
- fledged young; and
- singing males.

The survey method involves timing visits when weather conditions are favourable, e.g. warm and windless days and to start one hour before dawn, as they sing at this time often from high perching positions.

The black redstart survey was conducted at the same time as the breeding bird survey by Principal Ecologist Paul Fisher (MCIEEM) and Assistant Ecologist Abigail Case.

2.4 Visit Details

The three survey visits for the black redstart and breeding bird surveys were conducted on the following dates:

- Visit 1 – 28 April 2017;
- Visit 2 – 26 May 2017; and
- Visit 3 – 16 June 2017.

2.5 Determination of Breeding Status

The breeding status of each species can be classified into four categories: confirmed breeder, probable breeder, possible breeder and non-breeder. The behaviour, sex, age and location of individual birds allow conclusions to be drawn about breeding status, based on categories devised by the European Ornithology Atlas Committee (EOAC 1979) and the BTO. Breeding evidence used in this report follows EOAC guidelines 1979 and BTO guidelines (see Appendix D).

The four categories: confirmed, probable, possible and non-breeders are used to indicate the likely breeding status within the survey area.

2.6 Survey Limitations

The conditions were suitable on each survey day being calm, warm and clear. Access was restricted to some parts of the site although it is considered that reasonable coverage was available, and that the survey results have enabled a robust assessment of the breeding bird assemblage to be undertaken

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3 Results

3.1 Desk Study

A number of bird species of conservation interest have been recorded within the 1km search radius. The majority of these records were recent and within the last decade. GMEU returned records for a number of Section 41 species[2] including common bullfinch (*Pyrrhula pyrrhula*), dunnock (*Prunella modularis*), herring gull (*Larus argentatus*), house sparrow (*Passer domesticus*), song thrush (*Turdus philomelos*) and common starling (*Sturnus vulgaris*).

There is a single record of common kingfisher (*Alcedo atthis*) in the 1km search area. Common kingfishers are found by still and slow-flowing water, such as canals and rivers, and they nest in holes tunnelled into earth banks. The closest record is about 900m to the west of the site on a side branch of the Rochdale Canal.

There is a single record for little ringed plover (*Charadrius dubius*) at a brownfield site approximately 800m to the north-east at Ancoats, in an area close to a branch of the Ashton Canal. Little ringed plovers first bred in the UK in 1938. They are summer visitors and breed in unvegetated man-made habitats such as industrial and post-industrial land, gravel pits and shingle river banks.

GMEU returned a number of records for black redstart supplied by the Greater Manchester Bird Recording Group, all recorded within the last ten years and within 1km of the site. The closest sighting is at Piccadilly Station approximately 200m to the north of the site. The full list is presented in Appendix E and an abridged table presented as Table 3—1 listing the location and number of records in Manchester City centre up until 2016.

Table 3—1 Location of Records for Black Redstart in Manchester City Centre within a 1km Radius (GMEU)

Location	Number
Albert Square	2
Canal St Minshull St Courts	2
Central Retail Park Ancoats	2
China Lane	7
Chinatown	1
Manchester Town Hall	9
Oxford Road	1
Piccadilly Station	1
Port Street	4
Shudhill	3
St Anne's Square	2
St Peter's Square	1

The Manchester Birding Forum website (http://manchesterbirding.activeboard.com/) has a number of records of sightings and calling records for black redstart up until June 2017 at Lloyd Street (900m to north-east), Albert Square (800m to north-east) and Newton Street (350m to the north).

[2] *Under Section 41 of the Natural Environment and Rural Communities (NERC) Act, the Secretary of State must, as respects England, publish a list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity*

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3.2 Field Survey

3.2.1 Black Redstart

There were no sightings of black redstart. However, this is not to discount the possibility of black redstart using the site at times.

3.2.2 Breeding Bird Assemblage

A total of 18 species were recorded during the three site visits. Five Birds of Conservation Concern (BoCC) were recorded including amber-listed common bullfinch and dunnock, and red-listed common starling.

The common bullfinch is more commonly associated with gardens, scrub and woodland. UK common bullfinch populations have declined by 36% since 1967 believed to be related to the deterioration of habitat quality caused by agricultural intensification and the reduction in woodland diversity (BTO 2017).

The dunnock is a resident breeder and passage winter visitor. The amber status for the dunnock is because of a more recent population decline in both the breeding and winter population as well as a decline in the range. The cause of the decline is unknown (BTO 2017).

The willow warbler is a summer visitor placed on the amber list owing to a recent decline in numbers, particularly in southern England. The cause is thought to be a deterioration of habitat in its wintering grounds in Africa and changes in woodland management in Britain (Wildlife Trust 2017).

The mallard is a familiar duck, commonly seen on lakes in city parks and along rivers. The mallard has been amber-listed because of a recent breeding population decline as well as a breeding range and winter range decline (Wildfowl and Wetlands Trust 2017).

Despite the common starling being relatively conspicuous and widespread, there has been a decline in the breeding population and decline in the breeding and winter range. It was red-listed following its population being halved over three decades and in Greater Manchester common starlings have declined by 41% over the past two decades (RSPB 2017).

3.2.3 Evidence of Breeding

Following EOAC guidelines (1979) and BTO guidelines, 11 of the species recorded were assessed as breeding within the site, five as probable breeders and two as possible breeders. Please refer to Appendix A, Figures 1, 2 and 3, which use BTO abbreviation codes to identify the species' location and behaviour.

The majority of species classified as confirmed breeders were recorded at each site survey visit and were displaying and singing in a habitat where nesting and foraging opportunities were present. Please refer to the table in Appendix B.

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4 Discussion and Recommendations

4.1 Evaluation of Breeding Assemblage

The breeding assemblage consisted primarily of common and widespread species. The undisturbed nature of the habitat and the development of scrub and ruderal sparse vegetation across the site has attracted a relatively diverse yet small number of species. Nevertheless, the assemblage in terms of numbers and diversity most likely compares favourably with other sites within central Manchester.

Black redstart was not recorded during the surveys but the site contains suitable habitats for both foraging and nesting black redstart.

4.2 Recommendations

All wild birds, their nests and eggs are protected under the WCA 1981 (as amended). It is, therefore, recommended that potential breeding bird habitats within the application site including buildings, trees, scrub and dense vegetation are removed outside the breeding season, which runs from March to September (inclusive).

If this is not possible, a suitably experienced ecologist must check the vegetation no more than 48 hours prior to site clearance to ensure no active nests are present. If nesting birds are confirmed to be present then works would be postponed until young have fledged and/or nesting had been completed. It may be necessary to cordon off the nest and monitor it until it is completed. This approach is recommended to minimise the risk of destroying active nests and, therefore, any infringement of the wildlife legislation.

The final design for the redevelopment has yet to be produced. However, redevelopment of the site presents an opportunity to increase biodiversity and add ecological value, including for black redstart. Below are a number of general considerations and enhancement measures that would benefit birds and other wildlife.

4.2.1 Native Species

Planting schemes used in urban environments often include non-native species. These may be selected for their aesthetic appeal, pollution tolerance, evergreen foliage and low maintenance, and many nectar-bearing exotic species do support insects and provide foraging and nesting opportunities for birds. However, native species, preferably of local provenance, tend to support greater biodiversity as they have evolved to the local conditions. It is recommended that, wherever practical, native trees and shrubs are selected for landscape designs. However, there are limitations to the strict adherence to an all-native landscaping scheme as it does restrict plant choices. Across the site it may be more productive to use a combination of native and exotic species (although the latter should constitute a small fraction of the total planted, particularly if BREEAM accreditation is being sought for the development) to maximise the range of annual and perennial, deciduous and evergreen, foliage and flowering, climbing and creeping species.

4.2.2 Green and Brown Roofs

Green roofs (living roofs) are intrinsically of greater benefit to biodiversity than more traditional roofing methods. Green roofs can vary in their appearance and character. They can be designed to support low-growing mosses and sedums, wildflowers and grasses.

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Sedums are widely-used plants for living roofs as they have many advantages in terms of hardiness and frost resistance. Sedums are succulents and actively store water in their tissues, increasing drought tolerance and it has been demonstrated that sedum roofs provide a number of ecological benefits.

Commonly used species on living roofs include non-native white stonecrop (*Sedum album)* and native biting stonecrop (*Sedum acre*). White stonecrop and biting stonecrop have some of the most impressive flowering displays and are very attractive to bees, butterflies and other insects. Sedum can also form a closed sward that is colonised by mosses and ruderal species. Surveys of sedum roofs at Canary Wharf found they supported a wide range of notable and scarce invertebrate species (Jones 2002).

Brown roofs have a similar construction to green roofs and also aim to encourage biodiversity and can be designed to support specific species. In this instance the target species could be the black redstart, which is known to breed in central Manchester. Brown roofs make use of local soils and spoil, and colonisation by local plant species generally forms a bigger component of the habitat. The Black Redstart Species Action Plan (2009) provides advice on habitat creation to replace the brownfield areas lost in Manchester as a consequence of redevelopment.

Research on the black redstart has demonstrated that the best breeding habitat has a number of key features:

- Small areas of sparsely vegetated rubble and rocky terrain that promote the kind of plants that support invertebrates on which black redstart feed;
- Holes and ledges at various heights within structures that act as nesting sites; and
- Built structures with vertical features that mimic the natural cliff faces and gorges of the black redstart's natural habitat that also provide protection from predators, nesting sites and singing posts.

4.2.3 Species Composition and Planting

Native species, such as ivy (*Hedera helix*), dog rose (*Rosa canina*), old man's beard (*Clematis vitalba*), common hop (*Humulus lupulus*) and honeysuckle (*Lonicera periclymenum*), all provide important food and nesting resources. Although native species are more likely to attract wildlife, some exotic species are also effective in this respect, such as Virginia creeper (*Parthenocissus quinquefolia*) and wisteria (*Wisteria* sp.).

The aspect of a climbing plant on a wall can have significant ancillary effects, such as insulation and moisture retention. For example, north-facing walls are more suitable for supporting native herbs and a wider range of plants due to the higher moisture regime. Care must also be taken when using ivy if there are cavities in the walls, as the root systems may cause damage (www.livingroofs.com).

Plants that do well in a stone wall are varied in nature - from small, delicately leaved, creeping plants such as woolly creeping thyme (*Thymus pseudolanuginosus*) or prostrate rosemary (*Rosmarinus officinalis*), to drought-tolerant plants with minimal root systems such as hens and chicks (*Echeveria 'Imbricata'*) or other succulents. Other candidate species include annuals such as wallflowers (*Erysimum cheiri*), trailing lobelia (*Lobelia erinus)* and snapdragons (*Antirrhinum majus*) that re-seed themselves from year to year. As a general rule, young, drought tolerant plant species, whose roots will easily fit in the planting pockets, should be used.

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4.2.4 Bird Boxes

It is recommended that a variety of bird boxes should be installed, targeted towards species currently known to utilise the site and its surrounds, to potentially accommodate a range of small birds. Traditional nest boxes should be attached in various locations around the site on the south-west or south-eastern side of trees and buildings, near to foraging areas but away from disturbance.

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Appendix A – Plans

Figure 1: Breeding Bird Survey Visit 1 – 28/04/2017

Figure 2: Breeding Bird Survey Visit 2 – 26/05/2017

Figure 3: Breeding Bird Survey Visit 3 – 16/06/2017

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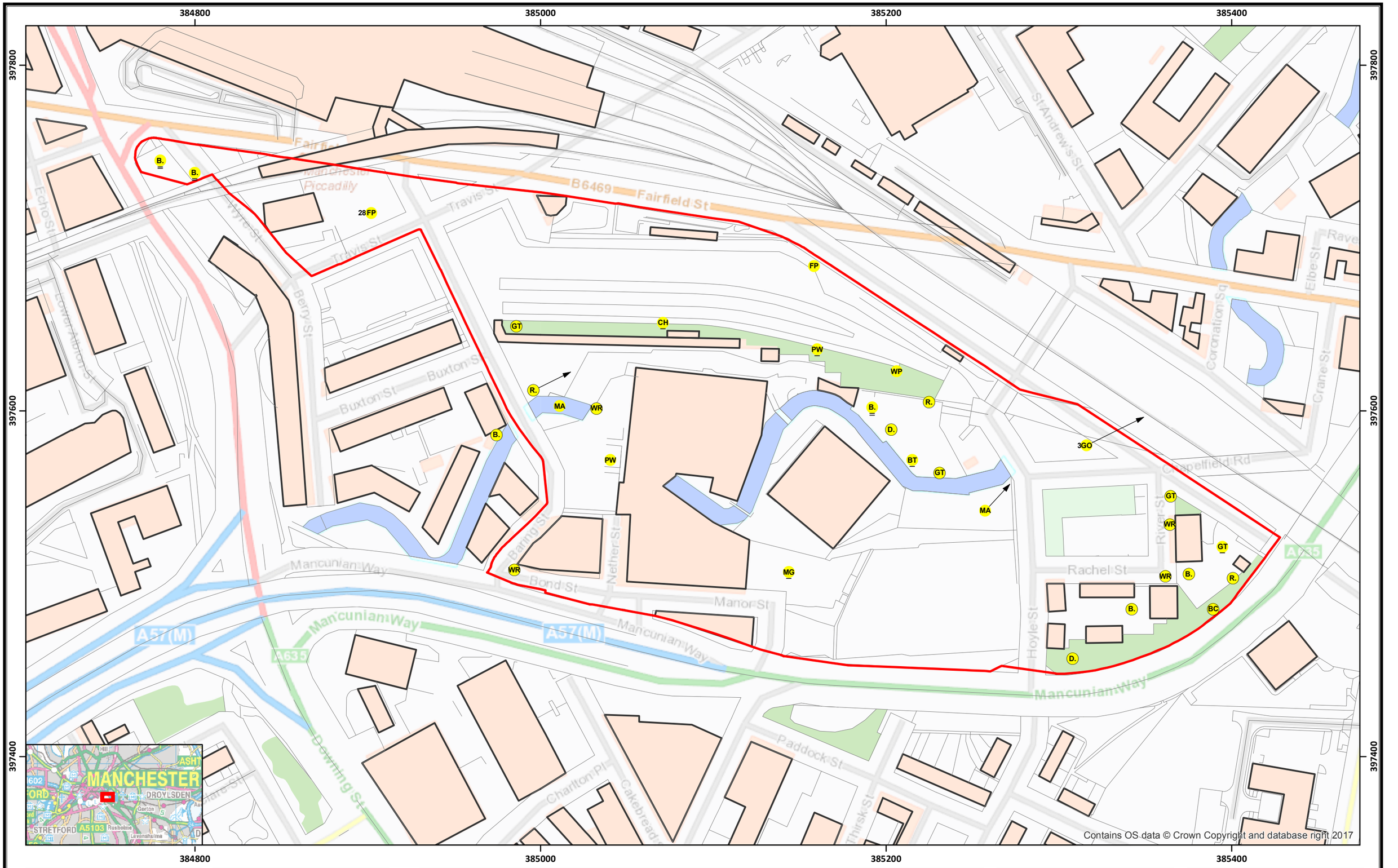

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N

British National Grid
Projection: Transverse Mercator
False Easting: 400000.000000
False Northing: -100000.000000
Central Meridian: -2.000000
Scale Factor: 0.999601
Latitude Of Origin: 49.000000

ISO A3

0 10 20 40 60 80 Metres

Legend

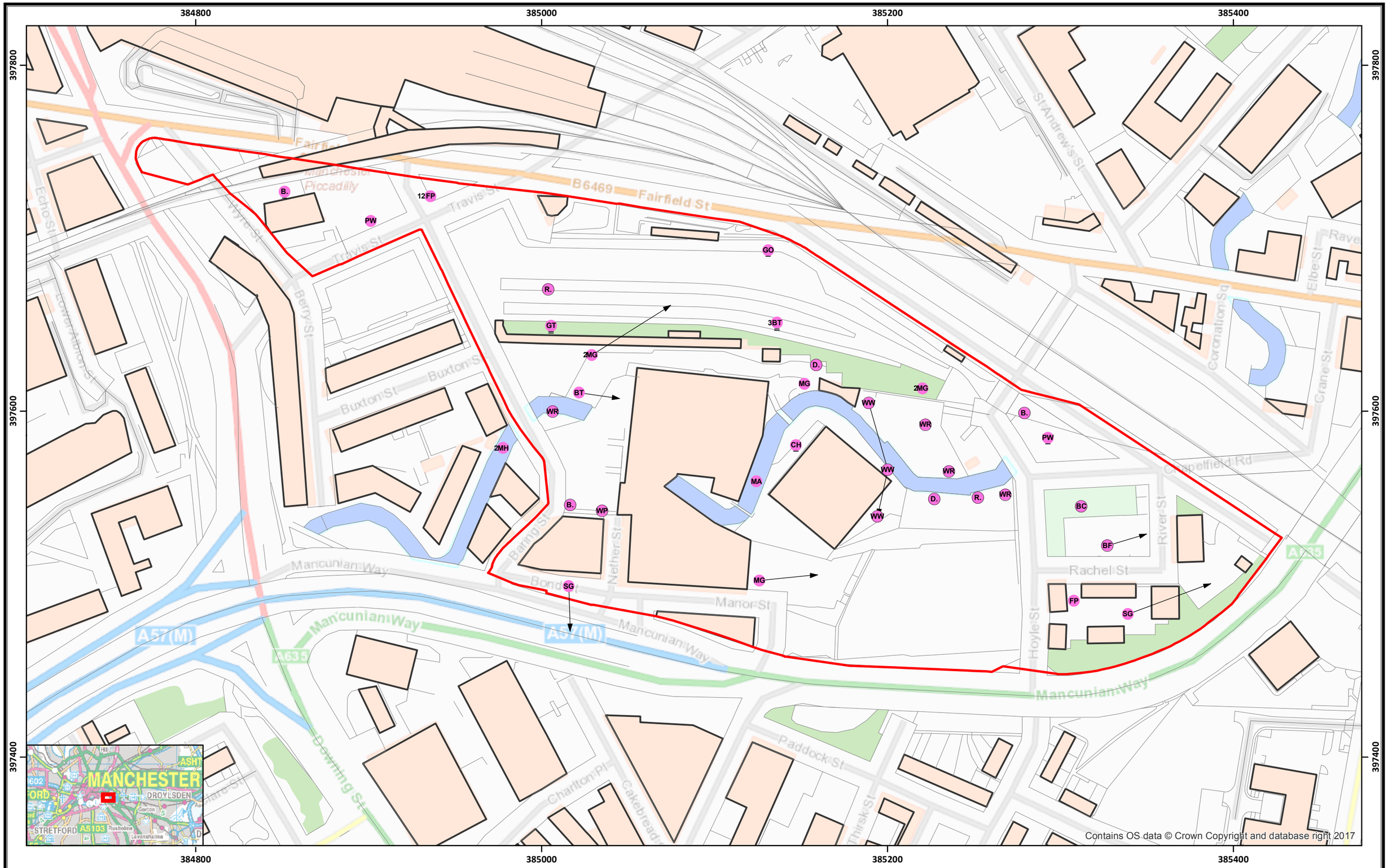
- Site boundary
- Survey Results
  - Bird registration
  - Bird singing
  - Bird calling
  - Bird alarm calling
  - Bird flight

B.	Blackbird	MA	Mallard
BC	Blackcap	MG	Magpie
BT	Bluetit	PW	Pied wagtail
CH	Chaffinch	R.	Robin
D.	Dunnock	WP	Woodpigeon
FP	Feral pigeon	WR	Wren
GO	Goldfinch		
GT	Great tit		

Title:

BREEDING BIRD SURVEY VISIT 1 - 28/04/17

Project Name	Mayfield, Manchester		
Discipline	Ecology		
Scale	1:2,000	Drawing No.	Figure 1a
Drawn By	CC	Originator	GJH
Date	13/07/2017		
PAA Ref.	G:\BUHA01_1_Mayfield_Picadilly\Maps\Figures\BBS_July_2017	Revision	A



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British National Grid
Projection: Transverse Mercator
False Easting: 400000.000000
False Northing: -100000.000000
Central Meridian: -2.000000
Scale Factor: 0.999601
Latitude Of Origin: 49.000000

N

ISO A3

0 10 20 40 60 80 Metres

Legend

Site boundary

Survey Results

Bird registration

Bird singing

Bird calling

Bird alarm calling

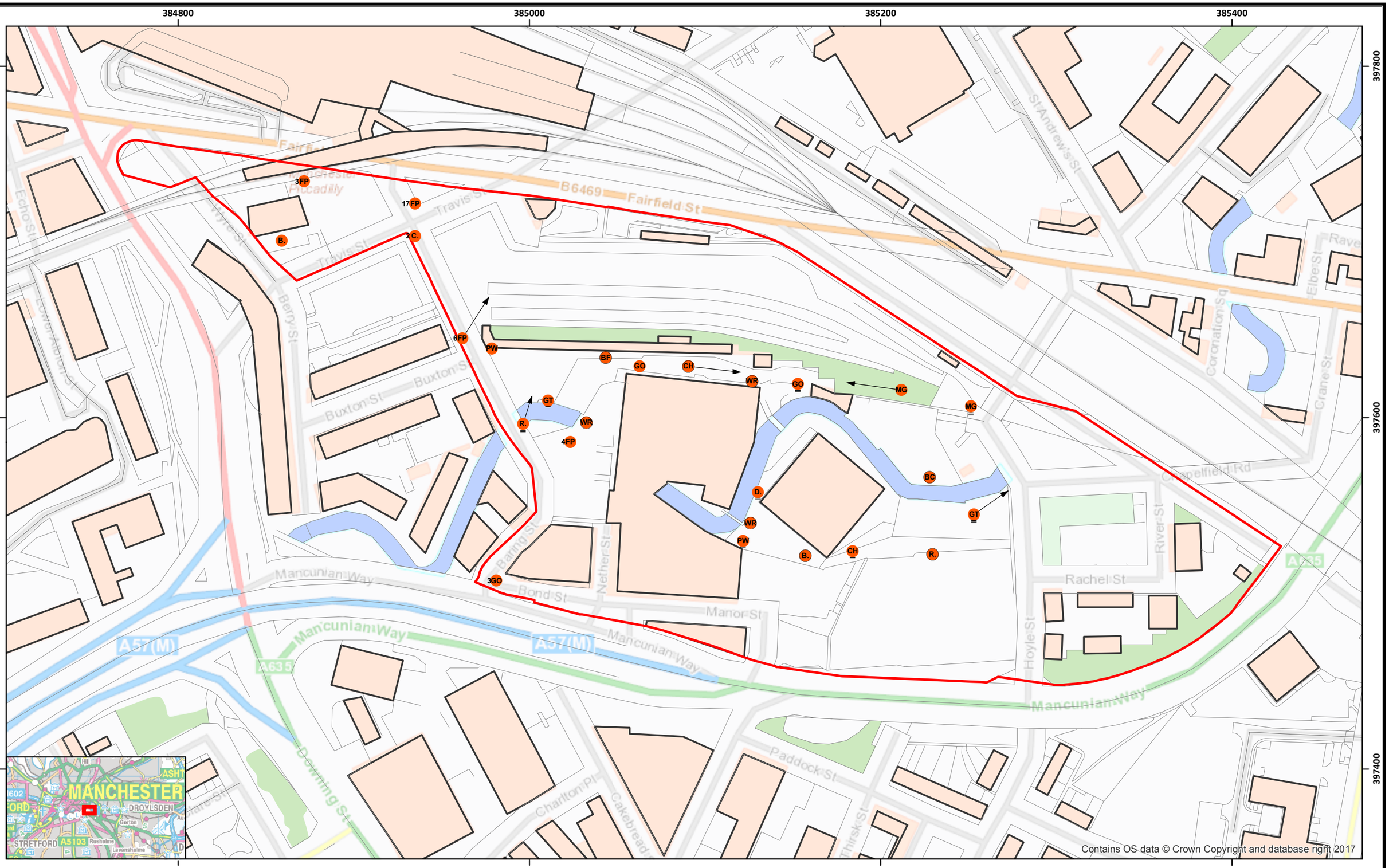
Bird flight

B.	Blackbird	GT	Great tit	WR	Wren
BC	Blackcap	MA	Mallard	WW	Willow warbler
BF	Bullfinch	MG	Magpie		
BT	Bluetit	MH	Moorhen		
CH	Chaffinch	PW	Pied wagtail		
D.	Dunnock	R.	Robin		
FP	Feral pigeon	SG	Starling		
GO	Goldfinch	WP	Woodpigeon		

Title:

BREEDING BIRD SURVEY VISIT 2 - 26/05/17

Project Name	Mayfield, Manchester
Discipline	Ecology
Scale	1:2,000
Drawing No.	Figure 1b
Drawn By	CC
Originator	GJH
Date	13/07/2017
PAA Ref.	G:\BUHA01_1_Mayfield_Picadilly \Maps\Figures\BBS_July_2017
Revision	A



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N

British National Grid
Projection: Transverse Mercator
False Easting: 400000.000000
False Northing: -100000.000000
Central Meridian: -2.000000
Scale Factor: 0.999601
Latitude Of Origin: 49.000000

ISO A3

0 10 20 40 60 80 Metres

Legend

- Site boundary
- Survey Results
  - Bird registration
  - Bird singing
  - Bird calling
  - Bird alarm calling
  - Bird flight

B.	Blackbird	GT	Great tit
BC	Blackcap	MG	Magpie
BF	Bullfinch	PW	Pied wagtail
C.	Carrion crow	R.	Robin
CH	Chaffinch	WR	Wren
D.	Dunnock		
FP	Feral pigeon		
GO	Goldfinch		

Title:

BREEDING BIRD SURVEY VISIT 3 - 16/06/17

Project Name	Mayfield, Manchester		
Discipline	Ecology		
Scale	1:2,000	Drawing No.	Figure 1c
Drawn By	CC	Originator GJH	Date 13/07/2017
PAA Ref.	G:\BUHA01_1_Mayfield_Picadilly \Maps\Figures\BBS_July_2017	Revision	A

Appendix B - Results

Common Name*	Scientific Name	V1 28/04/17	V2 26/05/17	V3 16/06/17	Conservation Status			Breeding Status		
					Red	Amber	Sch. 1	CO	PR	PO
Black-billed magpie [MG]	*Pica pica*	x	x	x					x	
Blackcap [BC]	*Sylvia atricapilla*	x	x	x				x		
Blue tit [BT]	*Cyanistes caeruleus*	x	x	x					x	
Carrion crow [C]	*Corvus corone*			x						x
Chaffinch [CH]	*Fringilla coelebs*	x	x	x				x		
Common blackbird [B]	*Turdus merula*	x	x	x				x		
Common bullfinch [BF]	*Pyrrhula pyrrhula*		x	x		x		x		
Common starling [SG]	*Sturnus vulgaris*	x	x	x	x				x	
Common woodpigeon [WP]	*Columba palumbus*								x	
Dunnock [D]	*Prunella modularis*	x	x	x		x		x		
European goldfinch [GO]	*Carduelis Carduelis*	x	x	x					x	
European robin [R]	*Erithacus rubecula*	x	x	x				x		
Feral pigeon [FP]	*Columba livia domestica*	x	x	x				x		
Great tit [GT]	*Parus major*	x	x	x				x		
Mallard [MA]	*Anas platyrhynchos*	x	x	x		x				x
White wagtail [PW]	*Motacilla alba*	x	x	x				x		
Willow warbler [WW]	*Phylloscopus trochilus*		x			x		x		
Winter wren [WR]	*Troglodytes troglodytes*	x	x	x				x		

Key: CO = Confirmed Breeder; PR = Probable Breeder; PO = Possible Breeder; *BTO species code in brackets

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Appendix C - Legislation Summary

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SUMMARY OF LEGISLATION RELATING TO BLACK REDSTART

All wild species of breeding birds and their nests are protected under Part 1 of the Wildlife and Countryside Act (WCA) 1981, as amended by later legislation including the Countryside and Rights of Way (CRoW) Act 2000.

Black redstarts (*Phoenicurus ochruros*) are additionally protected as they are listed on Schedule 1 of the WCA. Therefore, black redstarts, their nests, eggs and young are fully protected at all times throughout England and Wales.

Part 1 (Section 1:1) of the WCA states that:

'If any person intentionally,

(a) kills, injures or takes any wild bird;

(b) takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or

(c) takes or destroys an egg of any wild bird,

he shall be guilty of an offence.'

Part 1 (Section 1:5) of the WCA (amended by the CRoW Act 2000) states that:

'If any person intentionally or recklessly,

(a) disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or

(b) disturbs dependent young of such a bird,

he shall be guilty of an offence and liable to a special penalty.'

In addition, the black redstart is identified as a bird species of moderate conservation concern (‘Amber’ listed) due to its declining breeding population and its rarity as a breeding species within Britain.

Please note: the above text provides a brief summary of the legislation in relation to black redstart for England and Wales and the original Act and any amendments should be referred to for the precise wording.

SUMMARY OF THE LEGISLATION RELATING TO BREEDING BIRDS

All wild species of breeding birds and their nests are protected under Part 1 of the Wildlife and Countryside Act (WCA) 1981, as amended by later legislation including the Countryside and Rights of Way (CRoW) Act 2000. This legislation applies in England and Wales.

Part 1 (Section 1:1) of the WCA states that:

> 'If any person intentionally,
>
> (a) kills, injures or takes any wild bird;
>
> (b) takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
>
> (c) takes or destroys an egg of any wild bird,
>
> he shall be guilty of an offence.'

Part 1 (Section 1:5) of the WCA (amended by the CRoW Act 2000) refers to specific birds listed on Schedule 1 of the WCA, and states that:

> 'If any person intentionally or recklessly,
>
> (a) disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or
>
> (b) disturbs dependent young of such a bird,
>
> he shall be guilty of an offence and liable to a special penalty.'

Schedule 1 includes birds such as barn owl (*Tyto alba*), black redstart (*Phoenicurus ochruros*), wood lark (*Lullula arborea*) and Cetti's warbler (*Cettia cetti*). Please refer to the WCA for a complete list of Schedule 1 species.

Some provisions are made to allow the killing and taking of certain species under certain circumstances, as follows:

- Birds listed on Schedule 2 (Part 1) of the Act may be taken or killed outside of the 'close season' for each individual species (the 'close season' is defined by the Act). This includes various wild duck and geese species.
- Birds listed on Schedule 2 (Part 2) of the Act may be killed or taken by authorised persons at all times. This includes species such as carrion crow (*Corvus corone*), black-billed magpie (*Pica pica*), feral pigeon (*Columba livia*) and greater Canada goose (*Branta canadensis*). An 'authorised person' is defined as a person who has written authorisation to undertake the act from the relevant statutory authority. The written authority is in the form of a licence, either a general licence which covers a number of the more typical 'pest' species, or an individual licence for other individual species. In England these licences are issued by Natural England and in Wales by the Welsh Assembly Government.

Please note: the above text provides a brief summary of the legislation in relation to breeding birds in England and Wales and the original Act and any amendments should be referred to for the precise wording.

Appendix D - EOAC and BTO Guidelines

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Appendix D Categories of Breeding Bird Evidence

Class	Category of Evidence
Non-breeding	Flying over
	Species observed but suspected to be still on migration
	Species observed but suspected to be summering non-breeder
Possible Breeding	Species observed in breeding season in possible nesting habitat
	Singing male present (or breeding calls heard) in breeding season in suitable breeding habitat
Probable Breeding	Pairs observed in suitable nesting habitat in breeding season
	Permanent territory presumed through registration of territorial behaviour (song etc) on at least two different days, a week apart, at the same place, or many individuals on one day.
	Display and courtship (judged to be near potential breeding habitat).
	Visiting probable nest site
	Agitated behaviour or anxiety calls from adults, suggesting probably presence of nest or young nearby
	Brood patch on adult examined in the hand, suggesting incubation
	Building nest or excavating nest-hole
Confirmed Breeding	Distraction display or injury feigning
	Used nest or egg shells found (occupied or laid within the survey period)
	Recently fledged young (nidicolous species) or downy young (nififugous species). Careful consideration should be given to the likely provenance of any fledged juvenile capable of significent geographical movement. Evidence of dependency on adults (e.g. feeding) is helpful.
	Adults entering or leaving nest site in circumstances indicating occupied nest or adult sitting on nest
	Adults carrying food for young or faecal sacs
	Nests containing eggs
	Nest with young seen or heard

EOAC and BTO Guidelines (combined)

Appendix E - GMEU Black Redstart Records

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site	startDate	endDate	abundance	sex	stage	status
Albert Square Manchester	09/06/2015	09/06/2015	1			Probable Breeder T - permanent Territory
Albert Square Manchester	08/06/2015	08/06/2015	1		Adult	
Canal St/Minshull St Courts (Manchester City Centre)	17/06/2009	17/06/2009	1	male	Adult	Possible Breeder H - in suitable nesting Habitat
Canal St/Minshull St Courts (Manchester City Centre)	04/06/2009	04/06/2009	1		Adult	Possible Breeder H - in suitable nesting Habitat
Central Retail Park Ancoats	02/06/2008	02/06/2008	1		Adult	
Central Retail Park Ancoats	11/04/2008	11/04/2008	1		Adult	
China Lane Manchester city centre	19/07/2009	19/07/2009	2		Adult	Probable Breeder P - Pair in suitable nesting habitat
China Lane Manchester city centre	14/07/2009	14/07/2009	2		Adult	Probable Breeder P - Pair in suitable nesting habitat
China Lane Manchester city centre	13/07/2009	13/07/2009	1	male	Adult	Probable Breeder T - permanent Territory
China Lane Manchester city centre	12/07/2009	12/07/2009	1		Adult	
China Lane Manchester city centre	05/07/2009	05/07/2009	1		Adult	Confirmed Breeder ON - Occupied Nest
China Lane Manchester city centre	16/06/2009	16/06/2009	3		Adult	Probable Breeder D - courtship and Display
China Lane Manchester city centre	16/06/2009	16/06/2009	2		Adult	
Chinatown, Manchester city centre	25/06/2010	25/06/2010	1	male	Adult	Possible Breeder S - Singing male
Manchester Town Hall	08/10/2015	08/10/2015	1			Probable Breeder T - permanent Territory
Manchester Town Hall	12/06/2015	12/06/2015	1		Adult	Probable Breeder T - permanent Territory
Manchester Town Hall	08/04/2015	08/04/2015	1			Possible Breeder S - Singing male
Manchester Town Hall	26/09/2013	26/09/2013	1			Probable Breeder T - permanent Territory
Manchester Town Hall	01/08/2013	01/08/2013	1			Probable Breeder T - permanent Territory
Manchester Town Hall	25/07/2013	25/07/2013	1			Probable Breeder T - permanent Territory
Manchester Town Hall	03/07/2013	03/07/2013	1			Probable Breeder T - permanent Territory
Manchester Town Hall	03/06/2011	03/06/2011	1	male		
Manchester Town Hall	07/06/2010	07/06/2010	1	male	Adult	Possible Breeder S - Singing male
Oxford Rd Manchester	18/05/2012	18/05/2012	1			Possible Breeder S - Singing male
Piccadilly Station Manchester	01/08/2009	01/08/2009	1	female	Adult	
Port St Manchester city centre	03/08/2009	03/08/2009	1	male		Possible Breeder H - in suitable nesting Habitat
Port St Manchester city centre	15/07/2009	15/07/2009	1	male	Adult	Possible Breeder S - Singing male
Port St Manchester city centre	28/06/2009	28/06/2009	2			Possible Breeder H - in suitable nesting Habitat
Port St Manchester city centre	21/06/2009	21/06/2009	1	female	Adult	Possible Breeder H - in suitable nesting Habitat
Shudehill Manchester City Centre	29/06/2009	29/06/2009	1		Adult	Possible Breeder S - Singing male
Shudehill Manchester City Centre	27/05/2008	27/05/2008	1		Adult	
Shudehill Manchester City Centre	09/06/2010	09/06/2010	1	male	Adult	Possible Breeder S - Singing male
St. Ann's Square Manchester city centre	11/06/2015	11/06/2015	1		Adult	Probable Breeder T - permanent Territory
St. Ann's Square Manchester city centre	14/06/2010	14/06/2010	1	male	Adult	Possible Breeder S - Singing male
St. Peter's Square Manchester City Centre	14/05/2008	14/05/2008	1		Adult	

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