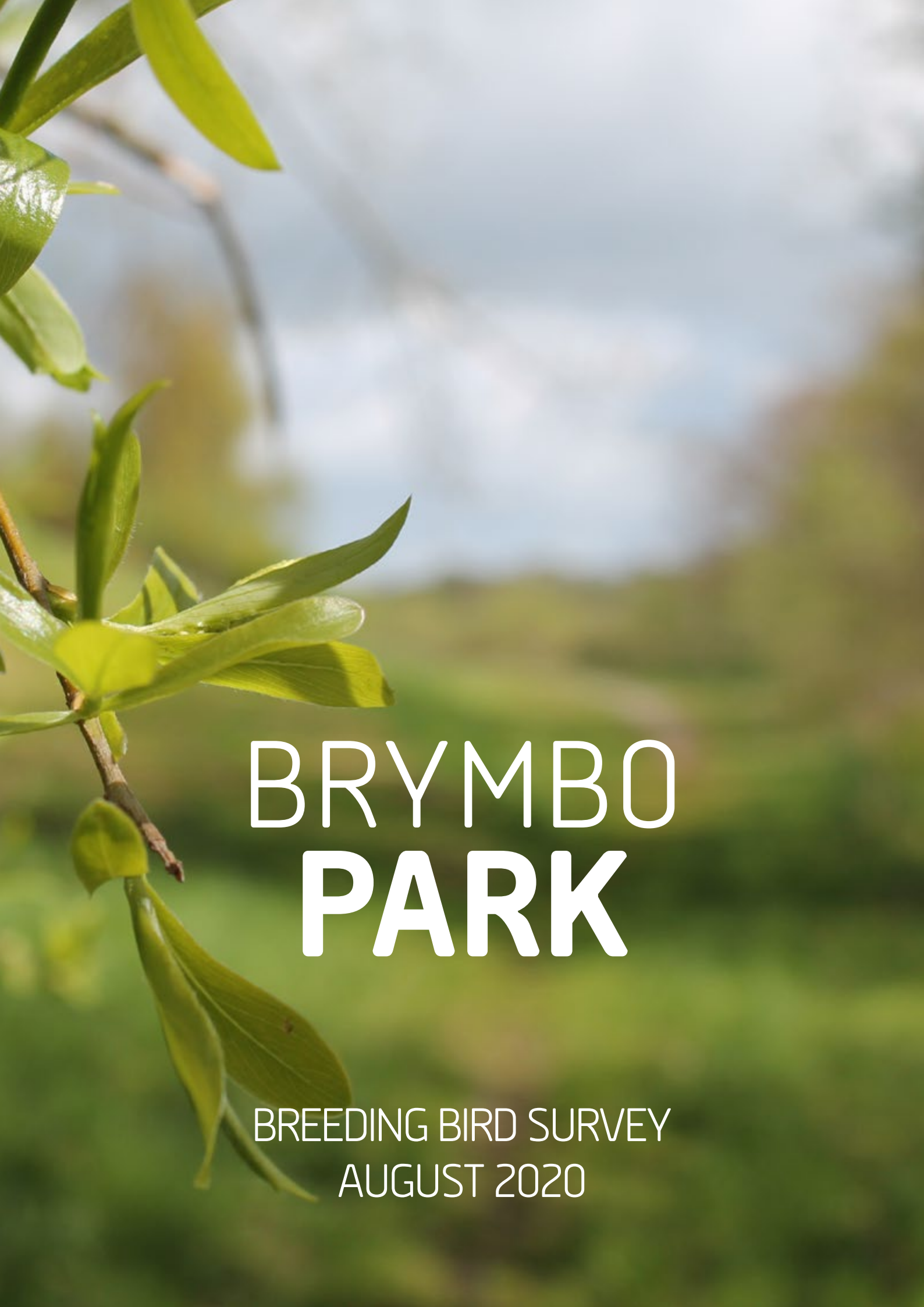




BRYMBO **PARK**

BREEDING BIRD SURVEY
AUGUST 2020



BRYMBO DEVELOPMENTS LTD

LAND AT THE FORMER BRYMBO STEELWORKS, BRYMBO, WREXHAM

BREEDING BIRD SURVEY REPORT

AUGUST 2020

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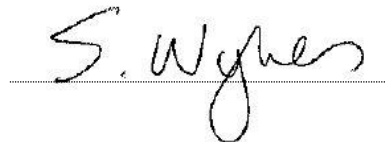
AUGUST 2020

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DRAWINGS	TITLE	SCALE
ST16882-034	Breeding Bird Transect and Field ID	1:4,000@A3
ST16882-035	Breeding Bird Territory Plan - Confidential	1:4,000@A3

1 INTRODUCTION

1.1 Survey Area Context

1.1.1 Wardell Armstrong LLP (WA) was commissioned by Brymbo Developments Ltd to undertake a breeding bird survey (BBS) at the former Brymbo Steelworks, Brymbo, Wrexham; central Ordnance Survey grid reference SJ296534.

1.1.2 The area of detailed ecological study referred to as 'the Site' encompasses approximately 13.41 hectares of former industrial land which has been remediated and regraded. The site is an open brown field plateau, covered in sparse vegetation consisting of ephemeral/short perennials and separated westerly by Phoenix Drive and bounded by residential properties to the north, east and south.

1.1.3 The 'study area' is regarded as the Site plus the surrounding habitats that are likely to be functionally linked to the Site by the bird species that occupy them, out to a distance of approximately 50m, incorporating areas with interconnecting habitats of scattered trees and scrub.

1.2 Objectives

1.2.1 The objectives of this survey and report are to:

- Identify all notable breeding bird species (and their territory locations) present within the survey area;
- Highlight potential constraints to future developments works;
- Ensure that breeding birds are fully considered within the design proposals; and
- Provide mitigation and enhancement recommendations for species likely to be affected by the proposals (although this is not an ecological impact assessment report).

- 1.2.2 Owing to the sensitive nature of some of the species identified, Drawing ST16882-035 is **confidential** and should only be made available to *bone fide* individuals. It should not be used to disclose the location of the breeding sites of birds of conservation concern.

2 METHODOLOGY

2.1 Desk Study

2.1.1 The desk study was informed by review of the latest bird data provided by Cofnod (North Wales Environmental Information Service) for a 2-kilometre (km) search radius from the Site (received November 2019).

2.1.2 From the records supplied, breeding bird records were selected as those recorded between the months of March to August, inclusive. Where no specific sighting date was provided, professional judgment and knowledge of species' ecology was used to categorise the record (i.e. wintering, breeding or passage migrant/vagrant).

2.2 Breeding Bird Survey

2.2.1 All bird surveys were undertaken by an experienced ornithologist from WA.

2.2.2 Bird species were identified by direct observation and through species vocalisation. Observations were made using 10x32 Zeiss binoculars.

2.2.3 Details of the 2019 survey dates, weather and timings are provided within Appendix 2 and the survey area and transect route are shown on Drawing Number ST16882-034.

2.2.4 The methodology used during the field surveys was based upon the standardised BTO/JNCC¹/RSPB Common Bird Census (CBC) survey technique, which has adopted 10x² visits as standard. Ideally, these should be spread uniformly between mid-March and mid-July.

2.2.5 The survey approach consisted of an adapted CBC methodology, entailing one visit per month during the peak of the breeding season (i.e. April - June inclusive).

2.2.6 During the bird breeding season (i.e. March to September, inclusive), many birds (especially passerines³) mark their territories by singing conspicuously, displaying or periodically disputing with rival neighbours (Bibby et al 2000). The territory mapping methodology (Bibby et al 2000) was used to record the presence of displaying birds within the survey area and immediate surrounds. During each survey visit, the locations of the displaying birds were marked on site maps to indicate territory locations.

¹ Joint Nature Conservation Committee (JNCC).

² However, it should be noted that – 'For any one species, all ten visits are rarely needed' (Bibby et al 2000).

³ Passerines, i.e. perching birds – an order of birds containing over half of the world's bird species, with anatomical adaptations for perching and singing.

- 2.2.7 The dawn surveys commenced within the first hour after sunrise and were completed before any lull in activity; usually around mid-day.
- 2.2.8 Surveys consisted of a plotted transect route to limit the effects of double-counting. The transect involved walking the predetermined route at a steady pace, ensuring that all habitat types within the survey area were sampled.
- 2.2.9 To provide a thorough assessment of the bird species' diversity within the local area, all species observed within the Site and within an appropriate zone of influence, were recorded. The zone of influence is assessed during the site visit and is determined by species present, or likely present, and the type of development proposed.
- 2.2.10 Dates and weather conditions of the surveys are shown within Appendix 2.

2.3 **Data Interpretation/Determination of Breeding Status**

- 2.3.1 Recording the behaviour, sex, age and location of birds allows conclusions to be drawn about breeding status within a survey area, based upon categories devised by the European Bird Census Council (EBCC 1997) and the British Trust for Ornithology (BTO).
- 2.3.2 Four breeding status categories are used to indicate the likely breeding status, these are:
- Confirmed breeder;
 - Probable breeder;
 - Possible breeder; and
 - Non-breeder.
- 2.3.3 These categories relate to breeding evidence obtained for individuals in potential suitable nesting habitat. The breeding evidence used in this report follows EBCC guidelines 1997 and BTO guidelines and the criteria used can be seen in Appendix 4.
- 2.3.4 For those species that do not readily 'sing' in display (e.g. corvids), breeding is assessed based on one or more of the following being recorded:
- Presence of a nest;
 - Breeding display;
 - Mating behaviour;
 - Territorial behaviour; and/or
 - Presence of young.

- 2.3.5 When all the BBS site visits were completed, the information obtained for each species of conservation concern was transferred onto a separate 'species map'. Registrations on the species maps fall more or less neatly into clusters indicating the activity of particular birds or pairs throughout the main breeding season. The maps are then analysed to determine the number of territories/pairs present.
- 2.3.6 A cluster is in general a spatially distinct group of registrations in which not more than one male and one female are represented. Depending upon the biology of the species, it usually relates directly to a breeding territory. The estimated centre of the territories is then plotted using the results from each visit (based on the positions of the registration clusters) and the number of territories counted. In practice, the number of territories/pairs will be an estimate, particularly for species such as dunnock which do not always hold territory in pairs and *Phylloscopus* warblers which are mobile and can be inconspicuous when not singing.
- 2.3.7 A breeding bird territory drawing (see Confidential Drawing ST16882-035) has been produced that highlights the locations of the BoCC⁴ and Section 7⁵ species recorded as breeding within the site. The BTO code markers on the map represent the approximate centre of the breeding territories. For species that do not 'hold' territories, the registration represents the approximate location of the breeding site based upon the behavioural observations recorded.
- 2.4 **Evaluation**
- 2.4.1 The evaluation of the results has been undertaken using UK bird evaluation and protection criteria, such as BoCC, Eaton *et al.* 2015 lists, Wrexham Local Biodiversity Action Plan (BAP) priority species and Section 7 'Species of Principal Importance'.
- 2.4.2 In order to assess the value of the breeding bird assemblage associated with the survey area, the Fuller (1980) criteria in Table 1 was used. These criteria have been used to classify the ornithological interest of >3,000 sites in Britain according to their importance for conservation and provides a standardised classification mechanism that identifies priority sites for conservation planning purposes; thereby forming a basis for making detailed comparisons of site quality.

⁴ Birds of Conservation Concern 4 (BoCC) 2015

⁵ Environment (Wales) Act 2016, Section 7 of the act requires Welsh Ministers to publish and maintain lists of species in Wales that are regarded as of 'principal importance' for the purpose of maintaining and enhancing biodiversity.

Table 1: Species Richness Criteria (Breeding)			
Level of Conservation Importance			
Local	County	Regional	National
25-49	50-69	70-84	85+

2.5 Caveat

- 2.5.1 Ornithological surveys are affected by a variety of factors that affect the presence of birds (e.g. season, weather, food availability, species behaviour and disturbance).
- 2.5.2 The absence of any particular species within the survey area should not be taken as conclusive evidence that the species is not present or that it will not be present in the future. The results of these bird surveys give an indication of the use of the survey area by breeding bird species at the time of survey and provide guidance in impact assessment and predictions of effects.

3 RESULTS

3.1 Desk Study

3.1.1 The data provided by Cofnod identified multiple records of bird species with varying degrees of notability and/or protection within the 2km radius around the Site. For the purposes of this assessment a recent record is defined as being no more than 10 years old at the time of reporting, so in this case all records before 2009 are discounted.

3.1.2 Records of birds of conservation concern (BoCC) with potential to utilise the site including cuckoo *Cuculus canorus*, garden warbler *Sylvia borin*, grey partridge *Perdix perdix*, linnet *Linaria cannabina*, redstart *Phoenicurus phoenicurus*, skylark *Alauda arvensis*, spotted flycatcher *Muscicapa striata*, willow warbler *Phylloscopus trochilus* and yellowhammer *Emberiza citrinella* were recorded within 2km of the site.

3.2 Breeding Bird Survey

3.2.1 A total of 43 species were recorded within the BBS area. The species recorded, their scientific name, conservation status, breeding status and general activity descriptions are provided in Appendix 1.

3.2.2 The species recorded within the BBS survey area and Site that are listed on Schedule 1 of the Wildlife & Countryside Act 1981, Section 7 priority species, Wrexham LBAP, and/or species determined to be of Red or Amber listed BoCC by the RSPB and, therefore, of 'conservation concern' and are summarised in Table 2 below.

Table 2: Total species and Conservation Status	Site
Total species	43
Schedule 1 on W&CA	1
Annex 1 on the Birds Directive	0
Species on BoCC Red List	8
Species on BoCC Amber List	8
'Species of Principal Importance' listed under Section 7 of the Environment (Wales) Act 2016	9
Wrexham Local Biodiversity Action Plan (LBAP)	1

3.2.3 Species of conservation concern recorded and their breeding status within the survey area comprised:

- **One Schedule 1 species:**

Non-breeding – Redwing *Turdus iliacus* feeding in hedgerows and wooded areas in March.

- **Nine Section 7 listed species:**

Breeding – herring gull *Larus argentatus* (one probable pair on adjacent buildings), kestrel *Falco tinnunculus* (one possible breeding pair in former Brymbo steelworks), skylark (four probable territories), dunnoek *Prunella modularis* (four probable territories), song thrush *Turdus philomelos* (two probable territories), starling *Sturnus vulgaris* (probable breeder in adjacent residential areas), house sparrow *Passer domesticus* (one probable colony), linnet *Linaria cannabina* (one probable pair) and bullfinch *Pyrrhula pyrrhula* (one probable pair).

- **Eight Red listed BoCC:**

Breeding - herring gull (one probable pair on adjacent buildings), skylark (four probable territories), song thrush (two probable territories), starling (probable breeder in adjacent residential areas), house sparrow (one probable colony) and linnet (one probable pair).

Non-breeding – grey wagtail *Motacilla cinerea* and redwing.

- **Eight Amber listed BoCC:**

Breeding - kestrel (one possible breeding pair in former Brymbo steelworks), stock dove *Columba oenas* (three probable pairs in former steel works area), swift *Apus apus* (two possible pairs in former steelwork area), dunnoek (four probable territories), house martin *Delichon urbicum* (breeding in adjacent residential areas), willow warbler (five probable territories) and bullfinch (one probable pair).

Non-breeding – meadow pipit *Anthus pratensis*

- **Wrexham LBAP:**

Breeding – song thrush (two probable territories)

Species Accounts

- 3.2.4 Accounts of all Schedule 1 listed and breeding BoCC species recorded are provided below. For location references, refer to Drawing ST16882-034.

Winter Thrushes

- 3.2.5 During the April survey visit a small flock of redwing were recorded foraging in adjacent woodland and flying over the Site. Redwing are a Schedule 1 and BoCC Red listed species due to very small numbers breeding in the far north of Scotland. However, redwing overwinter in the UK in large numbers, roving through the countryside feeding on berries, fruit and invertebrates. The birds recorded on Site

were winter visitors preparing for the breeding season back on the continent with no breeding connection to the Site.

Farmland Passerines

- 3.2.6 Small numbers of the following farmland passerines of conservation concern were recorded within the survey area, see Table 3 below.

Table 3: Farmland Passerines - Breeding birds of Conservation Concern	
Species	Number of pairs/territories Primary Survey Area
Stock Dove	Three probable pairs breeding in former steelworks
Skylark	Four probable pairs in ephemeral vegetation/bare ground of plateau
Dunnock	Four probable territories
Song Thrush	Two probable territories
House Sparrow	One probable colony
Linnet	One probable pair
Bullfinch	One probable pair

- 3.2.7 Three probable pairs of stock dove were recorded breeding within the former Brymbo steelworks and regularly foraging on the plateau within the Site. Stock Dove is a resident breeder in the UK and is Amber listed due to Britain holding at least 20% of the European population (Eaton *et al* 2015).
- 3.2.8 Four pairs of Skylark were recorded displaying over the plateau of ephemeral/bare ground. The birds were often observed in song overhead and occasionally undertaking short territorial flights. The skylark is a common resident species in the UK, however it is Red and Section 7 listed as it has suffered very severe population declines in recent decades linked to farming intensification and habitat change (Eaton *et al* 2015).
- 3.2.9 Dunnock is a widespread territorial species that associates with hedgerows and dense, low undergrowth (Harrison & Harrison 2005). Four probable territories were recorded across the survey area, breeding in association with hedgerows, scrub and woodland fringe. Although ubiquitous, the species is Amber and Section 7 listed as it is yet to recover fully from the drop-in abundance during the 1970s and 1980s.
- 3.2.10 Two probable pairs of song thrush were recorded in the survey area, in association with scrub and mature trees. This species is a migrant/resident breeder in the UK and is Red and Section 7 listed, due to currently undergoing severe long-term population decline (Eaton *et al* 2015). This species is monogamous and territorial during the breeding season.
- 3.2.11 One probable house sparrow colony was located within the survey area, in association with the residential gardens to the south of the plateau, outside of the Site. House

Sparrow is a widespread resident breeder in the UK, it is Red and Section 7 listed due to severe population declines linked to agricultural intensification (Baillie *et al* 2014).

3.2.12 Linnet is a migrant/resident breeder in the UK and has undergone severe population declines in recent decades, resulting in its inclusion on the Red list (Eaton *et al* 2015) and on Section 7. One probable pair were recorded during the survey, breeding in association with scrub to the west of the Site. Linnet often form loose colonies and the male's display song is not always indicative of a territory.

3.2.13 One probable pair of bullfinch were recorded within the survey area in scrub to the west of the Site. Bullfinches are not overtly territorial and can be unobtrusive during the breeding season, making conformation of territories difficult (Snow *et al* 1998). This species is a resident breeder in the UK and is currently Amber and Section 7 listed due to sharp declines in the 1970s, from which it has begun to slowly recover in recent years (Baillie *et al* 2014).

Raptors

3.2.14 The kestrel was the only raptor species of conservation concern recorded within the survey area, listed as an Amber BoCC. A pair of kestrel were regularly recorded foraging over the plateau and around the former Brymbo steelworks buildings. The former steelworks buildings provide suitable breeding habitat for this species and based on the activity recorded provide a possible breeding location.

Swifts and Hirundines

3.2.15 Swifts and house martins were regularly recorded foraging over the Site with probable breeding indicated in the former Brymbo steelworks and surrounding residential properties. Swifts and house martins are amber listed BoCC species and although not breeding within the Site they are utilising the Site for foraging.

Warblers

3.2.16 The survey area was found to be supporting at least three species of warbler (comprising blackcap *Sylvia atricapilla*, chiffchaff *Phylloscopus collybita* and willow warbler). Of these species only willow warbler is of conservation concern. The willow warbler is an amber listed BoCC and was recorded in notably high density with five territories recorded in association with areas of young trees, scrub and woodland fringe around the edge of the Site.

4 EVALUATION OF BREEDING BIRD ASSEMBLAGES

4.1.1 In terms of evaluating the survey area for its significance to breeding birds, the following criteria were taken into account:

- A. The occurrence of significant concentrations of a bird species, particularly if these comprise a significant proportion (i.e. 1% or more) of the national breeding population;
- B. The species-richness of the bird assemblage of the survey area (i.e. how many different types of species does the survey area support);
- C. Species listed on Schedule 1 of the Wildlife & Countryside Act 1981, Annex 1 Birds Directive, Section 7 listed species, Wrexham LBAP species and species determined to be of either red or amber status in BoCC 4, and therefore of conservation concern.

Criteria A

4.1.2 No breeding populations recorded within the Site or survey area comprised 1% or higher of the national breeding population.

Criteria B

4.1.3 A total of 43 species were recorded within the survey area.

4.1.4 In accordance with the criteria provided by Fuller (1980); the survey area is considered to support a breeding assemblage that is important at a local scale.

Criteria C

4.1.5 One Schedule 1 species was recorded within the survey area – redwing. Redwing were recorded in April and are a nationally widespread winter visitor to the UK.

4.1.6 No breeding Schedule 1 listed species were recorded within the survey area.

4.1.7 Nine Section 7 listed species were recorded within the survey area, of which all were breeding (comprising kestrel, herring gull, skylark, dunnoek, song thrush, starling, house sparrow, linnet and bullfinch).

4.1.8 Sixteen BoCC red or amber listed species were recorded, of which thirteen were identified as breeding within the survey area (comprising kestrel, herring gull, stock dove, swift, skylark, house martin, dunnoek, song thrush, willow warbler, starling, house sparrow, linnet and bullfinch).

- 4.1.9 Though much declined, all of these are still relatively abundant nationally and are likely to be widespread in the local area within suitable habitat.
- 4.1.10 Four territories of skylark and five territories of willow warbler (off Site) are particularly notable. The survey area as a whole is considered to be of local value for breeding birds.

5 RECOMMENDATIONS

5.1.1 Mitigation / enhancement measures for breeding birds are recommended as follows:

- 1) Warblers: Three species of warbler were recorded within the survey area (blackcap, chiffchaff and willow warbler), most of which were recorded in the vegetation around the peripheries of the Site and outside of the development footprint. Of particular conservation interest is the density of willow warbler (five territories within the survey area). This amber listed BoCC occupies areas of young, open scrubby woodland with small trees. The retention of the scrub, woodland blocks and tree lines around the periphery of the site and within the masterplan will retain habitat for this species, and in addition, the inclusion of young tree planting and scrub (particularly birch, hawthorn and willow) with a base of herbs, low shrubs and grass tussocks within the masterplan would create habitat for willow warbler within the Site.
- 2) Cavity nesting species: It is likely that kestrel, stock dove and swift would continue to utilise the former Brymbo steelworks for breeding, but it is recommended that foraging habitat for these species is retained and incorporated into the masterplan for the scheme. This could be in the form of areas of open, rotationally cut grassland with meadow/wildflower borders. Additionally, as an enhancement, it would be beneficial if nest boxes for these species could be included within the proposed development. Kestrel and stock dove occupy medium sized nest boxes⁶ which could be integrated into the built development and the inclusion of swift brick/boxes⁷ would aid in providing breeding habitat for this rapidly declining species. These would need to be erected on tall buildings (the boxes must be erected at a minimum height of 5 metres) preferably overlooking areas of green space.
- 3) Hedgerow species: Linnet and bullfinch and declining species of conservation concern require dense, species rich hedgerows for breeding and foraging. The peripheral vegetation in which they were breeding is to be retained however, opportunities to provide additional breeding and foraging habitat for these species, within the development, are available and include tree and shrub planting

⁶ <https://shopping.rspb.org.uk/bird-prey-nest-boxes/kestrel-nest-box.html>

⁷ https://www.swift-conservation.org/2017_SNH_Swift_Best_Practice_Advice_Note-2.pdf

composed of hawthorn, dog-rose and other berry bearing native species;

- 4) Other declining urban associated species: Dunnock, house sparrow, house martin, starling and song thrush are likely to utilise new planting, areas of green space and gardens within residential and urban areas as they mature and may find new foraging and breeding opportunities within the built environment, but this can be enhanced through adding nesting habitat. It is increasingly common to provide integrated nesting boxes, which homeowners are likely to find a positive intervention⁸;
- 5) Any works that require vegetation clearance should be timed to avoid the bird nesting season, which is generally accepted to be March to August, inclusive. If this is not possible, then areas of vegetation clearance should be first checked by a suitably qualified ecologist 24-hours in advance of works for the presence of occupied nests.

5.1.2 These measures would provide and retain breeding opportunities for Section 7 and BoCC listed species where possible, post development.

⁸ <http://eprints.glos.ac.uk/5682/1/Roberts%20MSc%20Applied%20Ecology%20Dissertation.pdf>

6 CONCLUSION

- 6.1.1 The breeding bird surveys recorded the presence of 43 species within the survey area, of which there were 16 species of conservation concern.
- 6.1.2 In accordance with the criteria provided by Fuller (1980); the Site is considered to support a breeding bird assemblage important at a Local scale, based upon the total number (i.e. 43) of species recorded.
- 6.1.3 Therefore, the Site is considered of local value for breeding birds, and breeding birds should be accounted for accordingly within the masterplan and development scheme for the Site.
- 6.1.4 Mitigation and enhancement measures for breeding birds are recommended in Section 5.
- 6.1.5 These mitigation measures would provide and retain breeding opportunities for most of the Section 7 and BoCC listed species post development and maintain the local value of the area for breeding birds.

7 REFERENCES

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Appendix 1
Brymbo Breeding Bird Survey Species List
(March 2019 – June 2019)

Appendix 2

Survey Data Tables

Appendix 2. Survey Data Tables

Table 1: Breeding Bird Survey (BBS) Weather and Times on Site

BBS visit	Date	Weather	Time On site	Sunrise time
BBS 1	08/03/19	Wind calm from the SW 2-5mph, 1-4°C, dry, overcast and cold	07:20 - 11:20	06:44
BBS 2	11/04/19	Wind from the SW 8-10mph. Cold morning - 1°C - 6°C by mid-morning. Sunny, dry and clear. Dry	07:10 – 11:00	06:23
BBS 3	21/05/19	Wind from the W 5-7mph. 5-16°C, dry and bright sunny morning	06:00 – 10:00	05:05
BBS 4	13/06/19	Wind from the NW 4-6mph. 9-11°C, grey and overcast, band of light rain between 09:00 and 09:30.	05:35 – 09:45	04:42

Appendix 3

BTO Breeding Status Codes

Breeding Status Codes

Non-breeding	
F	Flying over
M	Species observed but suspected to be still on M igration
U	Species observed but suspected to be s U mmerring non-breeder
Possible breeder	
H	Species observed in breeding season in suitable nesting H abitat
S	S inging male present (or breeding calls heard) in breeding season in suitable breeding habitat
Probable breeding	
P	P air observed in suitable nesting habitat in breeding season
T	Permanent T erritory presumed through registration of territorial behaviour (song etc) on at least two different days a week or more part at the same place or many individuals on one day
D	Courtship and D isplay (judged to be in or near potential breeding habitat; be cautious with wildfowl)
N	Visiting probable N est site
A	A gitated behaviour or anxiety calls from adults, suggesting probable presence of nest or young nearby
I	Brood patch on adult examined in the hand, suggesting I ncubation
B	Nest B uilding or excavating nest-hole
Confirmed breeding	
DD	D istractio D - D isplay or injury feigning
UN	U sed N est or eggshells found (occupied or laid within period of survey)
FL	Recently F Ledged young (nidicolous species) or downy young (nidifugous species). Careful consideration should be given to the likely provenance of any fledged juvenile capable of significant geographical movement. Evidence of dependency on adults (e.g. feeding) is helpful. Be cautious, even if the record comes from suitable habitat.
ON	Adults entering or leaving nest-site in circumstances indicating O ccupied N est (including high nests or nest holes, the contents of which can not be seen) or adults seen incubating
FF	Adult carrying F aecal sac or F ood for young
NE	N est containing E ggs
NY	N est with Y oung seen or heard

Appendix 4

Legislation and Policy

Appendix 4: Legislation and Policy⁹

The *European Community Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive)* is a framework for the conservation of wild birds in member states. Those bird species listed on *Annex 1* of the *Birds Directive* are subject to special conservation measures through the designation of UK Special Protection Areas (SPA) in order to safeguard important sites within the member states. The species listed in *Annex I* of the *Birds Directive* are those in danger of extinction, rare, vulnerable to specific changes in their habitat or requiring particular attention for reasons of the specific nature of their habitat.

The *Conservation of Habitats and Species Regulations 2017 (The Habitat Regulations)* provides legal protection for UK SPAs. The *Habitat Regulations* also provide legal protection to wetlands of international importance as designated under the Ramsar Convention. Proposals that are likely to affect an SPA or Ramsar site must address all relevant features that contribute to the integrity of the protected site, whether or not the proposal lies within or out with of the site. This allows for the protection of qualifying features (i.e. bird species) several kilometres from any development being proposed and is especially pertinent to migratory bird species.

The *Wildlife & Countryside Act (WCA) 1981* and the *Wildlife & Countryside Act (1981 as amended)* provide legal protection to all wild birds¹⁰, their nests and their eggs, making it an offence to intentionally kill or injure any wild bird, damage or destroy an active nest of any wild bird or destroy the eggs of any wild bird. Species listed in *Schedule 1* of the *Act* are also protected by special penalties from reckless or intentional disturbance whilst nest building or at (or near) a nest with eggs or young; or disturbance to dependant young¹¹. Under the *Wildlife & Countryside Act (1981 as amended)*, a wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild form.

The Environment (Wales) Act (2016) Part 1 sets out Wales' approach to planning and managing natural resources at a national and local level with a general purpose linked to statutory 'principles of sustainable management of natural resources' defined within the Act.

Section 6 of the Act places a duty on public authorities to 'seek to maintain and enhance biodiversity' so far as it is consistent with the proper exercise of those functions. In so doing, public authorities must also seek to 'promote the resilience of ecosystems'. The duty replaces

⁹ The relevant Policies and Acts should be consulted for definitive information. This resource is intended as a guide only.

¹⁰ Game birds are covered by *The Games Acts 1831*, which fully protects them during the closed season.

¹¹ Other offences apply but are of less relevance to this assessment.

the section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, and applies to those authorities that fell within the previous duty.

Public authorities will be required to report on the actions they are taking to improve biodiversity and promote ecosystem resilience.

Section 7 replaces the duty in section 42 of the NERC Act 2006. The Welsh Ministers will publish, review and revise lists of living organisms and types of habitat in Wales, which they consider are of key significance to sustain and improve biodiversity in relation to Wales.

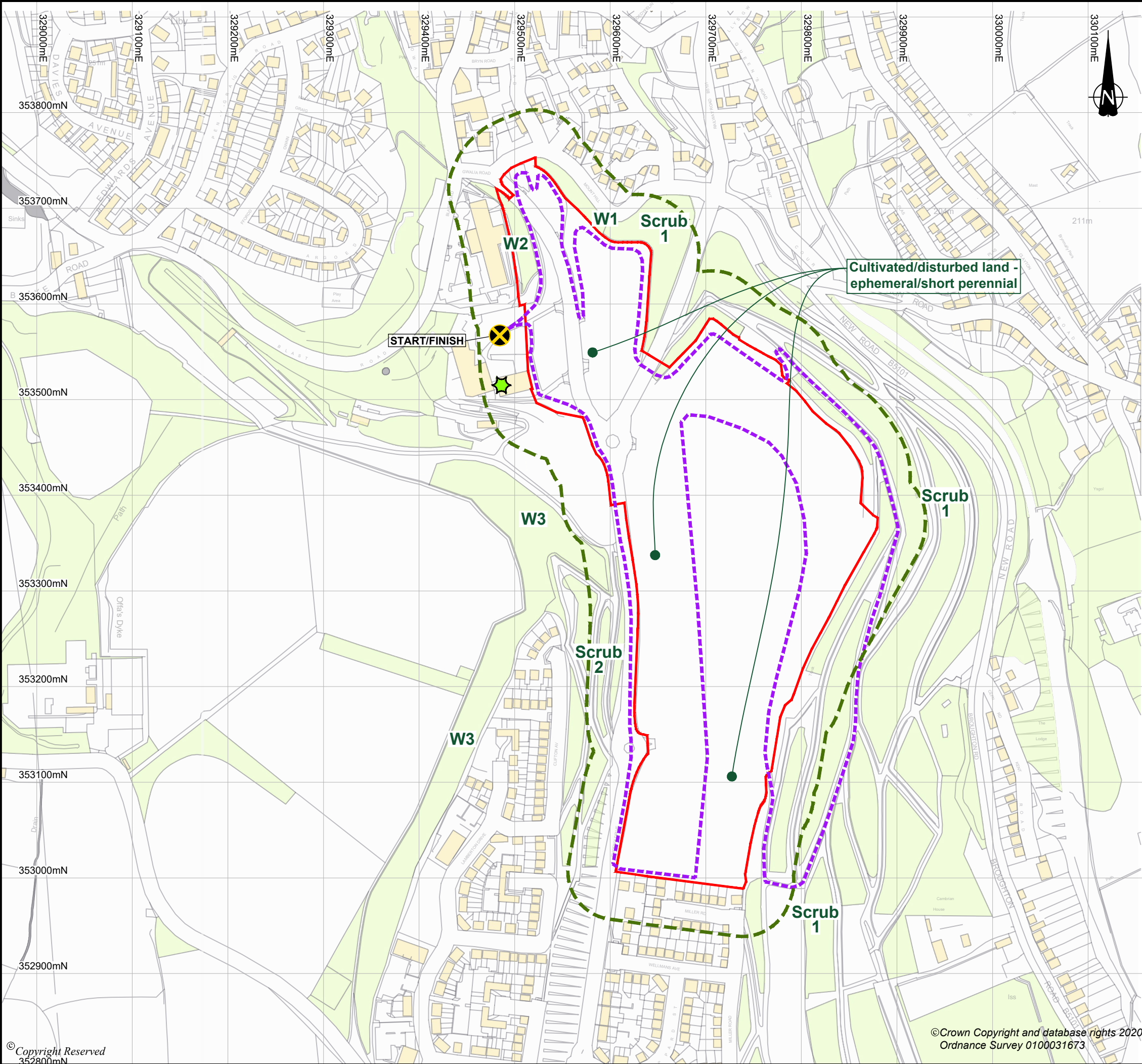
The Welsh Ministers must also take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section, and encourage others to take such steps.

Part 1 of the Act, including Sections 6 and 7, came into force on May 21, 2016.

Local Biodiversity Action Plans (LBAPs) exist throughout Wales. These highlight species that are considered to be under specific threat in a particular district or county or those considered to be at numbers to be a stronghold for that particular species. These plans do not offer the species any specific protection, but help to highlight the importance of a species at a local level.

The UK's leading bird conservation organisations (i.e. Royal Society for the Protection of Birds (RSPB), British Trust for Ornithology (BTO) and BirdLife) undertake a five-yearly review of the status of birds that occur regularly in the UK. Species are divided between red, amber and green categories, according to their status over the previous five years as Birds of Conservation Concern (BoCC). The criteria used for assessment ensure that the BoCC listings reflect each species' global and European status as well as that within the UK, as well as measuring the UK population in international terms. Red-listed species have been subject to the greatest population loss, rate of decline and/or range contraction. Amber-listed species have been subject to moderate declines, followed by green listed species, which are not considered to be declining or do not qualify under any of the red or amber criteria. For a detailed breakdown of the BoCC criteria, see Eaton *et al.* (2015).

DRAWINGS



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KEY

SITE BOUNDARY

STUDY AREA

TRANSECT

START/FINISH

F4

FIELD ID REFERENCE

FORMER STEELWORKS

NOTES:

COORDINATES TO BRITISH NATIONAL GRID.

B	Revised site boundary and study area.	19/02/20	MAB	SW	SW
A	First Issue	23/07/19	MAB	JB	SW
REVISION	DETAILS	DATE	DRN	CHK'D	APPD

CLIENT

Parkhill Estates

PROJECT

Former Brymbo Steelworks, Wrexham

DRAWING TITLE

Breeding Bird Transect and Field ID

DRG No.	ST16882-034	REV	B
DRG SIZE	A3	SCALE	1:4000
DRAWN BY	MAB	CHECKED BY	JB
		APPROVED BY	SW

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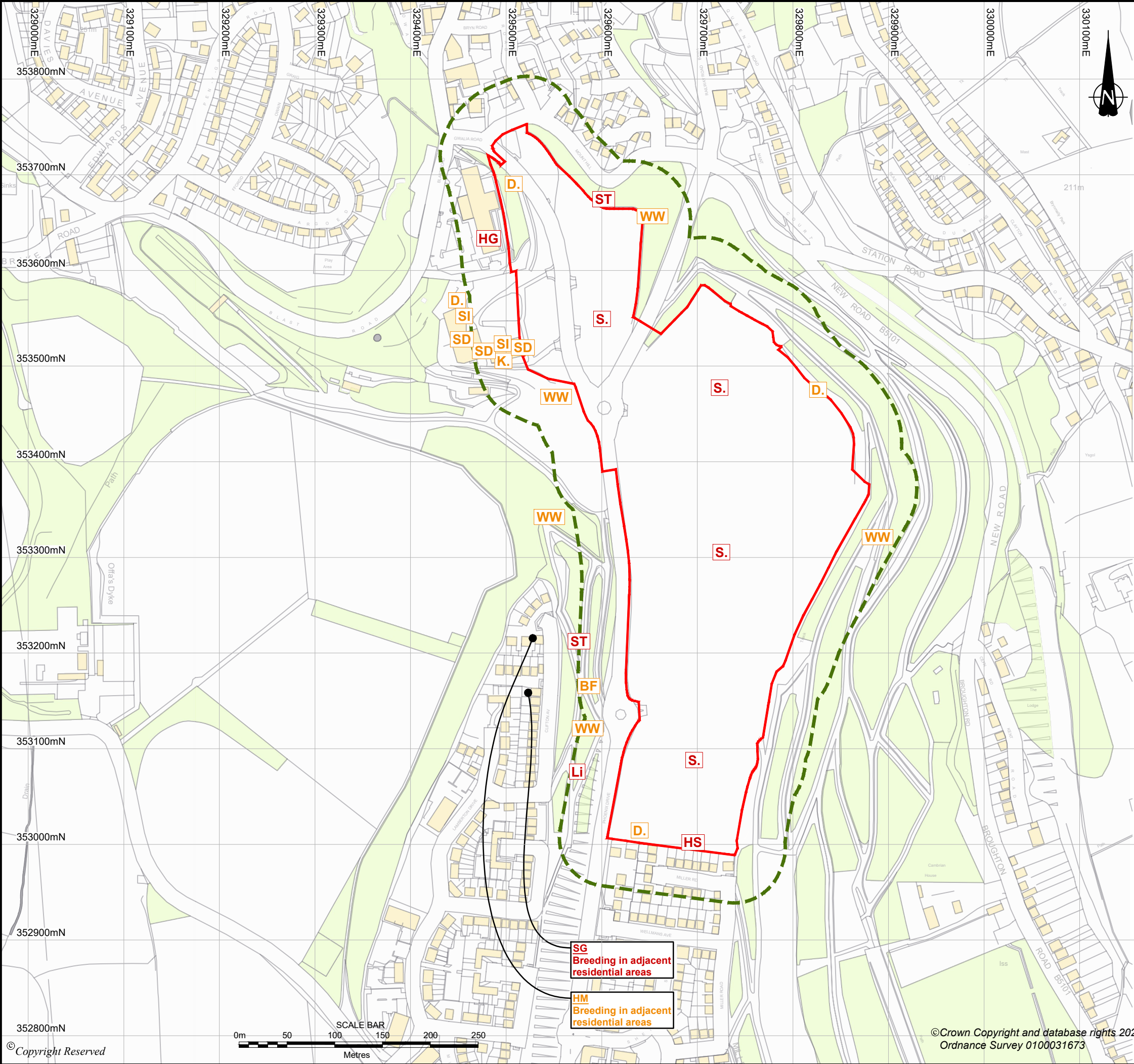
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N:\ST16882 - FORMER BRYMBO STEELWORKS\03 - DESIGN\AUTOCAD\ST16882-034-B BREEDING BIRD TRANSECT AND FIELD ID.DWG



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KEY

SITE BOUNDARY

STUDY AREA

BTO Code	Species	No. Pairs/Territories
BF	Bullfinch	1
D.	Dunnock	4
HG	Herring Gull	1
HM	House Martin	**
HS	House Sparrow	1 colony
K.	Kestrel	1
Li	Linnet	1
S.	Skylark	4
ST	Song Thrush	2
SG	Starling	**
SD	Stock Dove	3
SI	Swift	2
WW	Willow Warbler	5

** Breeding in adjacent residential areas

NOTES:

COORDINATES TO BRITISH NATIONAL GRID.

B	Revised site boundary and study area.	19/02/20	MAB	SW	SW
A	First Issue	23/07/19	MAB	JB	SW
REVISION	DETAILS	DATE	DRN	CHKD	APPD

CLIENT

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PROJECT

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DRAWING TITLE

Breeding Bird Territory Map

DRG No.	ST16882-035	REV	B
DRG SIZE	A3	SCALE	1:4000
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N:\ST16882 - FORMER BRYMBO STEELWORKS\03 - DESIGN\AUTOCAD\ST16882-035-B BREEDING BIRD TERRITORY MAP.DWG

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