6.6

F - Breeding Bird Survey Report

REDSTART

GOAT MILL ROAD ENTERPRISE PARK RIBA STAGE 2

Breeding Bird Survey Report

January 2025



Project No: 70121691 Doc Ref: 70121691-RED-74-XX-RP-L-003 Rev:P01

CLIENT: Merthyr Tydfil County Borough Council
ISSUE DATE: January 2025

Goat Mill Road Enterprise Park, RIBA Stage 2 Breeding Bird Survey Report

	NAME	POSITION	DATE
AUTHOR	Trevor Fletcher	Senior Ecologist	09/10/2024
CHECKER	Richard Poole	Principal Ecologist	10/09/2024
APPROVER	Geraint Pitman	Associate Director	28/01/2025

ISSUE RECORD

REV	DATE	DESCRIPTION/COMMENTS	AUTHOR/ PREPARED	APPROVED FOR ISSUE BY:
P01	29/01/2025	Report Issued	T.Fletcher	G.Pitman

"The report shall be for the private and confidential use of the clients for whom the report is undertaken and should not be reproduced in whole or in part or relied upon by third parties for any use whatsoever without the express written authority of the Consultant"

GENERAL DISCLAIMER:

This report has been prepared by Redstart in favour of Merthyr Tydfil County Borough Council ("the Client") and is for the sole use and benefit of the Client in accordance with the agreement between the Client and Redstart under which Redstart's services were performed. Other than in respect of liability which cannot be excluded by law, Redstart accepts no liability to any other party in respect of the contents of this report. This report is confidential and may not be disclosed by the Client or relied on by any other party without the express prior written consent of Redstart.

Whilst care has been taken in the construction of this report, the conclusions and recommendations which it contains are based upon information provided by third parties ("Third Party Information"). Redstart has for the purposes of this report relied upon and assumed that the Third Party Information is accurate and complete and has not independently verified such information for the purposes of this report. Redstart makes no representation, warranty or undertaking (express or implied) in the context of the Third Party Information and no responsibility is taken or accepted by Redstart for the adequacy, completeness or accuracy of the report in the context of the Third Party Information on which it is based.

FREEDOM OF INFORMATION:

Redstart understands and acknowledges the Authority's legal obligations and responsibilities under the Freedom of Information Act 2000 (the "Act") and fully appreciates that the Authority may be required under the terms of the Act to disclose any information which it holds. Redstart maintains that the report contains commercially sensitive information that could be prejudicial to the commercial interests of the parties. On this basis redstart believes that the report should attract exemption from disclosure, at least in the first instance, under Sections 41 and/or 43 of the Act. Redstart accepts that the damage which it would suffer in the event of disclosure of certain of the confidential information would, to some extent, reduce with the passage of time and therefore proposes that any disclosure (pursuant to the Act) of the confidential information contained in the report should be restricted until after the expiry of 24 months from the date of the report.

Contents

1. Introduction 1
2. Methodology 2
3. Results 5
4. Discussion and Evaluation of Breeding Bird Assemblage 9
5. Impact Assessment 11
6. Recommendations 13
7. References 16

Appendices

Appendix A -Desk Study Data

Appendix B - Survey Details

Appendix C - Legislation and Conservation Designations

Appendix D - Nature Conservation Value-Definition of Terms

Appendix E - Breeding Bird Species of High and Medium Conservation Concern-County Status

Appendix F - Species of Low Conservation Concern-Territories and Spatial Distribution

Appendix G - Typical Habitats for Breeding Birds in the Survey Area

Non-Technical Summary

Site Location	Land north of the A4102 Goat Mill Road, Pen-y-Darren, Merthyr Tydfil (approximate Central Grid Reference (CGR) S0 0617706853).
Proposed Development	Business Enterprise Park.
Purpose of survey/s	Provide a characterisation of the breeding bird assemblage on the Site, whilst also providing detail as to the diversity of non-breeding birds present and their association with the Site; to inform any constraints breeding birds may present to the proposed development.
Dates of survey and names of surveyors	28/03/2024 - Trevor Fletcher and Tara Okon. 28/05/2024 - Trevor Fletcher and Megan Watts. 07/06/2024 - Trevor Fletcher and Janine Burnham. 18/06/2024 - Trevor Fletcher and Janine Burnham. 02/07/2024 - Tara Okon and Natalie Pyatt. 10/07/2024 - Trevor Fletcher and Tara Okon.
Overview of Results	• A total of 39 different bird species were recorded in the Survey Area during the survey, of which 12 were confirmed breeding, six probably breeding and six possibly breeding. • There were 15 species recorded that were assessed as non-breeding or recorded flying over the Survey Area. Species in this category included WCA1 peregrine falcon (*Falco peregrinus*), and S7 species skylark (*Alauda arvensis*) and herring gull (*Larus argentatus*). • There was a total of 27 breeding bird territories for seven species of high conservation concern identified within the Survey Area, of these none were for WCA1 species. • There was a total of 22 territories for six species of medium conservation concern. • The Survey Area is of no more than **Local** value for breeding birds.
Mitigation	• Timing of works to avoid breeding bird season or with pre-works check for active nests. • Retention of woodland habitat. • Appropriate siting of plant, machinery, compounds and access routes to minimise impact on breeding bird habitat. • Pollution control measures. • Lighting control. • Toolbox talk.
Enhancement	• Habitat such as creation of hedgerow, planting of native fruit/berry bearing trees. • Creation of scrapes/pools to support resident and migrant bird species. • Installation of bird boxes.

1. Introduction

1.1 Background

Redstart was commissioned by Merthyr Tydfil County Borough Council (MTCBC) to undertake a breeding bird survey for the proposed development of a business enterprise park on a parcel of land north of the A4102 Goat Mill Road, Pen-y-Darren, Merthyr Tydfil (approximate Central Grid Reference (CGR) S0 0617706853).

The primary purpose of the survey was to provide a characterisation of the breeding bird assemblage on the Site, whilst also providing detail as to the diversity of non-breeding birds present and their association with the Site. The information was gathered to inform any constraints breeding birds may present to the proposed development.

The report includes details of the survey methodology and results and provides recommendations for further survey, compensation, mitigation measures and post-construction monitoring where required.

The area of proposed works is referred to as the 'Site', the wider area covered by the breeding bird survey (a 50m buffer around the Site) is the 'Survey Area'.

The Site and Survey Area are shown on Figure 1.

1.2 Site Description

The Site is an area of approximately 32ha, located in Pen-y-Darren, east of Merthyr Tydfil. The A4060 lies to the east of the Site and to the west and north lies the A4102 Goat Mill Road/ an unclassified road, linking to residential and industrial areas. Land to the east of the A4060 comprises open moorland and opencast mine workings and associated infrastructure.

The majority of the Site is frequently accessed by recreational walkers/ dog walkers and at the time of survey did not appear to be under any active management. During the survey period an area of land was fenced out, cleared and was in the process of development.

Figure 1: The Site outlined in red, Survey Area in yellow. The ongoing development area is labelled in green. Adapted from Google Earth (Google Earth, 2024). Not to scale.



1.3 Proposed Works

This report has been completed in advance of enabling works on the Site, which will include vegetation clearance and ground investigation works. The vision for the Site is for development of a business enterprise park, comprising mixed use commercial and industrial activities, with individual plots of land within the Site being sold to developers by MTCBC once essential infrastructure is in place.

2. Methodology

2.1 Desk Study

The following resources were accessed for information regarding bird records and species distribution within the Survey Area and the wider landscape.

- South East Wales Biodiversity Records Centre (SEWBReC, 2024);
- British Trust for Ornithology (BTO) Birdtrack (Accessed 16 September 2024);
- The most recent National avifauna -The Birds of Wales (Venables *et al*., 2021);
- The most recent County avifauna - East Glamorgan Bird Report No.60 (Glamorgan Bird Club, 2021); and
- A previous bird survey report for the Site producedby FPCR on behalf of Sirius Planning Consultants (FPCR, 2021).
- An ecology response by FPCR to the Local Planning Authority (FPCR,2022)

Aerial photographs and Ordnance Survey (OS) maps were reviewed to identify areas with potential for raptor and gull breeding, foraging and shelter sites.

A summary of bird records from the SEWBReC search are shown in Appendix A.

2.2 Field Survey

A breeding bird survey was undertaken following best practice guidelines for assessing ecological impacts on birds (Bird Survey and Assessment Steering Group, 2023). These guidelines were followed to ensure there was appropriate survey effort, species recorded/mapped, and the timing of visits maximised the potential to detect the full range of breeding birds likely to be encountered through the breeding season.

A survey transect was designed to ensure thorough coverage of the Survey Area and to incorporate the full range of potential breeding habitats.

The transect route is shown on Drawing 70121691-RED-74-XX-M2-L-3003.

Adhering to the Bird Survey and Assessment Steering Group guidelines (2023), six appropriately spaced survey visits were undertaken between March and July 2024, with one visit being undertaken in the evening, ending one hour after sunset. All other survey visits were carried out in the early morning, commencing no later than 30 minutes after sunrise. The full details are provided in Appendix B.

During each visit the transect was walked at a slow, steady pace to ensure birds could be detected by sight or sound. Frequent stops were made to scan for singing and calling birds, using high magnification binoculars.

Surveys were carried out in appropriate weather conditions, avoiding days with high winds, heavy rain or poor visibility; guarding against the possibility of under recording due to suppressed bird activity.

Surveys were led by experienced ornithologists with good knowledge and experience of the likely species assemblage for the geographical location and habitat types.

In accordance with the Bird Survey and Assessment Steering Group, 2023 guidelines all species encountered were recorded but only mapped for Priority species, defined as,

- Species listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended);
- Species listed on Section 7 of the Environment (Wales) Act 2016;

- Red and Amber listed species on the UK Birds of Conservation Concern (BoCC5) list;
- Localised or highly specialised species regardless of inclusion above (e.g. crossbill (*Loxia curvirostra*) in coniferous woodland);
- Nationally or locally declining species regardless of inclusion above (e.g. chaffinch (*Fringilla coelebs*));
- Colonial nests or roost sites containing more than one individual of any species; or,
- Exceptional counts or aggregations of any species.

Considering the geographical location of the Survey Area, Red and Amber listed species on the Birds of Conservation Concern in Wales (BoCCW4) list were also included in breeding territory mapping for this report.

Legislation and conservation designations in regard to UK bird species is outlined in Appendix C.

All Priority bird species (as defined above) and their locations were recorded on either large-scale maps or a GPS enabled device using standard two-letter BTO codes. Bird activity was recorded using standard BTO behaviour codes.

The criteria used in the assessment of the breeding status of bird species has been adapted from the standard criteria proposed by the European Ornithological Atlas Committee (EOAC, 1979), as follows.

Confirmed breeding- Evidence of nesting activity was observed, such as a nest containing eggs/young, distraction display/injury feigning observed, adults carrying food or where used nests, or eggshells were located.

Probable breeding - A pair of birds in suitable nesting habitat and displaying behaviours such as singing, breeding or alarm calls and were recorded from a similar area on more than one survey visit. These species were also considered to be holding permanent territories.

Possible breeding - A pair of birds were noted in suitable nesting habitat, or a single singing male was noted on only one survey visit.

Non-breeding - Species observed during the six surveys that were either flying over the survey area or displayed no signs of breeding or nesting, and for which the habitat is not considered suitable for nesting.

Opportunistic observations made during other ecological surveys within the Survey Area were noted and incorporated in the analysis where they provided pertinent additional information on species presence, activity, or breeding evidence.

2.3 Data Analysis

Territorial analysis was carried out based on a standard technique (Marchant, 1983; Bibby *et al.,* 1992) to determine the approximate location and number of bird territories within the Survey Area. A single map showing all indicative breeding bird territories for target species was produced from the analysis of the data.

A complete list of all bird species recorded over the six survey visits was compiled, along with each species activity.

The conservation importance of the species recorded during the survey has been evaluated using two different approaches: conservation status and nature conservation value.

3.1.1 Conservation Status

The bird species recorded in the Survey Area were compared to published lists of species of conservation concern. These are birds listed in one or more of the following:

Wildlife and Countryside Act 1981 (as amended) Schedule 1 (Statutorily protected species with additional protection against disturbance (S1)), Environment (Wales) Act 2016 Section 7(S7) (Species of 'Principal

importance (SPI) for the purpose of maintaining and enhancing biodiversity in relation to Wales),UK Red, Amber and Green List - Birds of Conservation Concern 5 (BoCC5); and Wales Red, Amber and Green List - Birds of Conservation Concern in Wales (BoCCW4).

Subsequently, each species of bird identified as breeding during the survey was allocated a level of relative protection status/conservation concern based upon their statutory/non-statutory designation (outlined in Table 1). Further details of these designations for birds are detailed in Appendix A and Appendix C.

Table 1: Classification levels for birds of conservation concern

Level of conservation concern/protection status	Legislation
High	S1/SPI/UK Red List/Wales Red List
Medium	UK Amber List/Wales Amber List
Low	UK Green List/ Wales Green List

3.1.2 Nature Conservation Value

The Chartered Institute of Ecology and Environmental Management (CIEEM) guidance on Ecological Impact Assessment (CIEEM, 2018) assesses nature conservation value within a geographical context. To attain a particular value level a species population or assemblage of species should meet the criteria outlined in Appendix D.

The level of nature conservation value for a species was informed by the nature conservation status of each species and county level data taken from the most recently published East Glamorgan Bird Report (Glamorgan Bird Club, 2021). Details for county level designations for breeding species of high and medium conservation concern is shown in Appendix E.

Breeding species recorded during the survey were compared to these criteria and assigned to the appropriate nature conservation value level.

An assessment of conservation status, in combination with nature conservation value of a species/species assemblage, together with spatial analysis of breeding territories across the site, enables evaluation of the likely impact of the development.

2.4 Survey Constraints

The results of bird surveys can be affected by a variety of factors including season, weather, climate, migration patterns, food availability, and the presence of predators. Additionally, cryptic behaviour or lack of vocalisation may mean that birds that are present could be missed. The species list compiled for the Survey Area may therefore be incomplete and the lack of evidence of a species does not necessarily preclude it from being present at another time. Any ecological survey can only identify what was present in the survey area at the time it was conducted, and habitat use by species can change over time.

A small area of the Site (shown on Figure 1) was inaccessible to surveyors due to the presence of Heras fencing during the April survey visit, subsequently the Site was cleared of vegetation and building materials/welfare facilities delivered to site. This is not considered to be a significant constraint to the survey as during all survey visits surveyors were able to visually inspect the area using binoculars and were able to detect bird presence aurally.

Where third party data is referred to, for example from online searches and Biodiversity Record Centre data, WSP cannot be held responsible for the accuracy of the information.

The length of time that the survey data remains valid will depend on a case-by-case basis, but it is generally considered that if the proposed works do not commence within two years of the date of the survey in this report an update may be required (CIEEM, 2019).

3. Results

3.1 Desk Data

A desk study was undertaken for the Site to inform a Preliminary Ecological Appraisal (PEA) (Redstart, 2024). Information relevant to this breeding bird report was reviewed and is summarised as follows.

3.1.3 Designated Sites

No International or National statutory designated sites were recorded within a 2km radius of the Site. Statutory designated sites will not be discussed further in this report.

3.1.4 Non-Designated Sites

There were two non-statutory designated sites, both Sites of Interest for Nature Conservation (SINC) within a 2km radius of the Site, Glynmil SINC lay 790m south-southeast of the most southerly extent of the Site, and Merthyr Common South SINC 820m southeast of the southerly extent. Both SINC sites have habitat suitable for a range of bird species, the only specific reference to birds in the SINC designations was for the Merthyr Common South SINC, described as 'important for a range of ground nesting birds and the presence of peregrine falcon (*Falco peregrinus*) on high cliffs to the south'.

3.1.5 Habitats

A range of habitats with suitability for breeding birds were recorded during the Phase 1 habitat survey conducted in February 2024 to inform the PEA report (Redstart, 2024), including plantation woodland, scattered trees, scrub, grassland, marsh/marshy grassland and bare ground.

3.1.6 Bird Records

A total of 586 records for 31 species of protected and priority birds were returned from the SEWBReC data, including 13 Wildlife and Countryside Act (1981) Schedule 1 (WCA1) species.

WCA1 species were barn owl (*Tyto alba*), red kite (*Milvus milvus*), goshawk (*Accipiter gentilis*), kingfisher (*Alcedo atthis*), fieldfare (*Turdus pilaris*), greenshank (*Tringa nebularia*), hen harrier (*Circus cyaneus*), hobby (*Falco subbuteo*), little ringed plover (*Charadrius dubius*), merlin (*Falco columbarius*), redwing (*Turdus iliacus*) and whimbrel (*Numenius phaeopus*).

The closest, and most recent record for a WCA1 species was for a red kite flying over woodland and grassland within the Site in December 2022.

A total of 16 Environment (Wales) Act 2016 Section 7 (S7) listed priority species were recorded from the SEWBReC data search, including bullfinch (*Pyrrhula pyrrhula*), house sparrow (*Passer domesticus*), spotted flycatcher (*Muscicapa striata*), and starling (*Sturnus vulgaris*). The closest S7 record was for a skylark (*Alauda arvensis*) within the Site.

The BTO Birdtrack database returned no bird sighting records for the Survey Area within the two weeks prior to 16 September 2024, the nearest record being for red kite 2km to the north-northwest at Cyfartha Castle, Merthyr Tydfil.

A summary of the SEWBReC dataset for birds is shown in Appendix A.

3.2 Previous Breeding Bird Survey

A breeding bird survey of the Site was undertaken in 2019 by FPCR on behalf of Sirius Planning Consultants (FPCR, 2021). Survey effort was limited to two visits, carried out in July and August 2019. A total of 24 species

were recorded, of which six had protected/priority status. The species included WACA1 peregrine falcon flying over the Site, and S7 species bullfinch (*Pyrrhula pyrrhula*), meadow pipit (*Anthus pratensis*) and dunnock (*Prunella modularis*), recorded as possibly breeding on the Site. Section 7 species herring gull (*Larus argentatus)* was recorded flying over the Site.

The Site was assessed as being of no more than **local** value for breeding birds. An ecology response document issued to the Local Planning Authority (FPCR, 2022) included a reiteration of the **local** value appraisal of the Site for breeding birds.

3.3 Field Survey

3.3.1 Habitats

Habitats across the Site and wider Survey Area had suitability to support a range of nesting, feeding and sheltering birds.

The central area of the Site comprised semi-improved grassland and areas of bare ground, interspersed with stands of willow species (*Salix* sp.), bramble (*Rubus fruticosus* agg.) and gorse (*Ulex europaeus*) scrub.

The northwest corner of the Site had an area of marsh / marshy grassland, fed by an engineered stream (although this was noted by breeding bird surveyors as having dried up in May 2024).

Engineered watercourses were also present in the south of the Site but also dried out and became heavily vegetated by late spring.

Plantation woodland was dominant along the eastern margin of the Site, with semi-natural broadleaved woodland forming the western boundary.

Although there were no buildings within the Site, residential housing to the south had potential to support semi-colonial species with an affinity to buildings (e.g. starling, house martin and house sparrow) and industrial units to the north and northeast had features suitable for gull species to roost and nest.

3.3.2 Birds

A total of 39 different bird species were recorded in the Survey Area during the survey, of which 12 were confirmed breeding, six probably breeding and six possibly breeding.

There were 15 species recorded that were assessed as non-breeding or recorded flying over the Survey Area. Species in this category included WCA1 peregrine falcon and S7 species skylark and herring gull (*Larus argentatus*).

A full list of bird species recorded during the breeding bird survey is presented in Table 2, along with their relative levels of conservation concern, statutory and non-statutory designation and assigned conservation value level.

Table 2 also provides a peak count for notable non-territorial/colonial nesting species and non-breeding species flying over the Survey Area.

Species not identified as being on the Red or Amber lists in Table 2, or are not S7 species, are all Green-listed species of low conservation concern, or in the case of Canada goose (*Branta canadensis*), an invasive non-native species.

Table 2: The conservation designation and breeding status of all bird species recorded during the breeding bird survey

English vernacular name	Scientific name	WACA Schedule 1	SPI Wales	UK Red List	UK Amber List	Wales Red list	Wales Amber list	Breeding	Conservation importance of breeding species	Nature conservation value of breeding species	Peak count (where notable)
Canada goose	*Branta canadensis*							No - fly-over only	Low		
Buzzard	*Buteo buteo*							Probable	Low	Local	
Peregrine falcon	*Falco peregrinus*	*						No – Fly-over only			
Herring gull	*Larus argentatus*		*			*		No			c.500
Lesser black-backed gull	*Larus fuscus*				*		*	No			c.200
Feral pigeon	*Columba livia*							No - Fly- over only			
Woodpigeon	*Columba palumbus*				*			Probable	Medium	Local	
Swift	*Apus apus*			*			*	No - Fly-over only			
Jay	*Garrulus glandarius*							Possible	Low	Site	
Magpie	*Pica pica*						*	Confirmed	Medium	Site	
Jackdaw	*Coloeus monedula*							No			c.1000
Carrion crow	*Corvus corone*							No			c.400
Raven	*Corvus corax*							No - Fly-over only			
Coal Tit	*Periparus ater*						*	Probable	Medium	Local	
Blue tit	*Cyanistes caeruleus*							Confirmed	Low	Site	
Great tit	*Parus major*							Confirmed	Low	Site	
Skylark	*Alauda arvensis*		*	*			*	No - Fly-over only			
House martin	*Delichon urbicum*			*			*	No - Fly- over only			
Swallow	*Hirundo rustica*							No - Fly-over only			
Long-tailed tit	*Aegithalos caudatus*							Confirmed	Low	Site	
Willow warbler	*Phylloscopus trochilus*				*	*		Probable	High	Local	
Chiffchaff	*Phylloscopus collybita*							Confirmed	Low	Site	
Blackcap	*Sylvia atricapilla*							Confirmed	Low	Site	
Garden warbler	*Sylvia borin*							Possible	Low	Site	
Goldcrest	*Regulus regulus*					*		Probable	High	Local	
Wren	*Troglodytes troglodytes*				*			Confirmed	Medium	Local	
Nuthatch	*Sitta europaea*							Possible	Low	Site	
Treecreeper	*Certhia familiaris*							Possible	Low	Site	
Blackbird	*Turdus merula*							Confirmed	Low	Site	
Song thrush	*Turdus philomelos*		*		*			Confirmed	High	Local	
Mistle thrush	*Turdus viscivorus*			*			*	No - Fly over only			
Robin	*Erithacus rubecula*							Confirmed	Low	Site	
Wheatear	*Oenanthe oenanthe*							No - Passage migrant			
Dunnock	*Prunella modularis*		*		*			Confirmed	High	Local	
Chaffinch	*Fringilla coelebs*				*			Probable	Medium	Local	
Bullfinch	*Pyrrhula pyrrhula*		*		*		*	Confirmed	High	Local	
Goldfinch	*Carduelis carduelis*							Possible	Low	Site	
Siskin	*Spinus spinus*							No - Fly-over only			
Reed bunting	*Emberiza schoeniclus*		*		*			Possible	Medium	Local	

3.4 Breeding Territory Analysis

Territory analysis determined the spatial distribution and number of target breeding bird territories within the Survey Area.

Breeding territories of priority species as defined in best practice survey guidelines (Bird Survey and Assessment Steering Group, 2023) are shown on Drawing 70121691-RED-74-XX-M2-L-3003. The majority of locations do not represent actual nest sites but are approximate breeding territories.

3.4.1 Breeding Birds of High Conservation Concern

There was a total of 27 breeding bird territories for seven species of high conservation concern identified within the Survey Area, of these none were for WCA1 species.

The most abundant species was S7 species song thrush (*Turdus philomelos*), accounting for 11 territories. Section 7 species dunnock accounted for five territories, as did summer breeding migrant species willow warbler (*Phylloscopus trochilus*).

3.4.2 Breeding Birds of Medium Conservation Concern

There was a total of 22 territories for six species of medium conservation concern. Magpie and wren were confirmed as breeding in the Survey Area.

Wren (*Troglodytes troglodytes*) was by far the most abundant species, accounting for 14 territories.

3.4.3 Breeding Birds of Low Conservation Concern

Breeding territories for species of low conservation concern were recorded but not mapped, having relatively stable populations that are unlikely to change as a result of development.

A summary of territorial behaviour and spatial distribution of breeding species of low conservation concern within the Survey Area for is provided in Appendix F.

3.4.4 Territory Distribution

Breeding territories were predominantly located in woodland corridors running parallel to the western boundary of the Site (adjacent to Goat Mill Road) and the eastern boundary of the Site (adjacent to the A4060).

Territories were less frequently recorded in the central area of the Site, and here, invariably in areas of dense scrub scattered throughout the grassland.

There was a notable absence of ground nesting species (other than willow warbler) in the Survey Area, with species such as skylark and meadow pipit (*Anthus pratensis*) conspicuous by their absence from suitable grassland breeding habitat.

4. Discussion and Evaluation of Breeding Bird Assemblage

4.1 Designated Sites

Neither of the two SINC sites located within 1km of the Site are likely to be impacted by the proposed development as the closest lay 790m south south-east of the Site.

Merthyr Common SINC was cited as being important for ground nesting birds and breeding peregrine falcon, loss of habitat on the Site is highly unlikely to have any impact on ground nesting passerines breeding away from the Site, or peregrine falcon as this species is reliant on aerial predation of other bird species for food resources and high cliffs for nesting.

4.2 Desk Study

The desk study returned a high number of bird species, including 11 WCA1 species. This diversity of species is a function of the habitats available to bird species in the wider landscape, which provide suitable open moorland habitat to the east of the Site for raptor species, and large waterbodies such as Rhaslas Pond, which is known to provide rest and feeding opportunities for migrating WCA1 wader species such as greenshank and whimbrel (*Numenius phaeopus*).

Although habitat on Site may have some suitability for the presence of raptors such as red kite and hobby its relatively narrow corridor and high levels of human disturbance and road traffic make it an unlikely choice when more suitable habitat is available in the wider, less populated landscape.

Wader species recorded in the desk study, such as little ringed plover (*Charadrius dubius*) are unlikely to find the Site attractive for breeding due to a lack of suitable undisturbed habitat such as bare ground near waterbodies (e.g., reclaimed gravel pits).

4.3 Survey

The breeding bird assemblage recorded during the survey comprised species that are common and widespread throughout the Eastern Glamorgan recording area which incorporates the Site, this includes all the species of high and medium conservation concern recorded during the survey, other than reed bunting, described as locally common due to its preference for areas of marshy habitat with rush species to breeding.

The potential for the Site to support ground nesting species such as meadow pipit and skylark was greatly inhibited by the frequent use of the Site by recreational walkers/dog walkers. Surveyors detected skylark displaying over similar but undisturbed habitat to the east of the Site, habitat within the Site was highly suitable for the species and their absence is attributed to the ongoing disturbance.

Although there was evidence that there was a substantial mixed corvid roost off-site to the northeast, the Site itself was only occasionally used, usually to rest and preen in treetops on the western boundary. Similarly, a movement of approximately 750 gulls over the Site during the evening survey (herring and lesser black-backed gulls going to roost off-Site) was notable, but the Site was only very occasionally used by gull species, and then only to scavenge discarded takeaway food items.

The central area of grassland and scattered scrub supported a limited number of breeding species and nest sites of commonly occurring passerines such as dunnock, wren, and willow warbler.

The woodland margins of the Site held the greatest diversity and concentration of breeding territories, all were commonly occurring species in Glamorgan.

4.4 Breeding Bird Assemblage

It is considered that the Survey Area is of no more than **Local** value for breeding birds (see Appendix C) based upon the presence of a wide range of breeding species, including those of high and medium conservation concern, but where no species are present in, or near to, county important numbers.

5. Impact Assessment

The assessment of likely impact on breeding bird species arising from the proposed development is based on;

- An understanding of individual species ecological requirements.
- Number and location of breeding territories across the Survey Area.
- Extent of suitable breeding habitat outside the footprint of the development, in the wider landscape.
- Conservation status based upon legislation (S1/SPI) and current non-statutory designations (Red/Amber/Green listed BoCC5 and BoCCW4).
- Likely location and extent of works and associated siting of plant and access routes pre-and during construction, and;
- Overall design of the works, including lighting and landscaping.

It should be noted that, as no final design for the works was available at the time of writing this report, the potential impacts presented in the following section are a broad outline and may need to be refined/ reviewed as the programme is refined.

5.1 Potential Impacts

Potential impacts on breeding bird species as a result of the works include, but are not confined to the following:

- Direct mortality, habitat loss (foraging, shelter and nesting) and fragmentation, degradation of habitats and increased disturbance (e.g., lighting, noise, air pollution).
- The effects of these potential impacts include but are not limited to; reduced species abundance, reduced species richness, reduced reproductive success, loss of breeding sites, changes to and/or loss of breeding territories.
- The potential impacts of the works and their likely magnitude as discussed; are based upon no mitigation measures being applied.

5.1.1 Habitat Clearance

Removal of habitat (vegetation and ground clearance) will be required to facilitate the works. If work is carried out during the breeding season (i.e., March to August inclusive) the impact on breeding birds is likely to be short-term and high adverse and result in inadvertent damage or destruction of nests.

5.1.2 Habitat Loss and Fragmentation

Habitat suitable for breeding birds will be lost if dense scrub, scattered trees, and/or woodland is removed to facilitate the works.

Displacement of small numbers of bird species with potential for breeding within the Survey Area, including species of high and medium conservation concern such as song thrush, dunnock, wren, chaffinch and woodpigeon (*Columba palumbus*) is likely to occur.

The presence of suitable habitat in the surrounding landscape and the common/locally common status of breeding species, which are predominantly generalist in their selection of breeding sites, indicates that in the worst case there would be a dispersal of these species away from the Site into readily available suitable breeding habitat.

The adverse impact of habitat loss is likely to be low in the short-term and low to negligible in the long-term for most species at the local scale as there is an abundance of suitable breeding habitat within the wider landscape. Impacts are likely to be relatively minor if woodland corridors are retained.

5.1.3 Disturbance from Construction Work

Construction work will likely require additional lighting. Noise levels will increase and there is the likelihood of air pollution from dust and exhaust fumes created by plant and machinery.

Disturbance is likely to lead to avoidance of, and displacement from, construction areas and their vicinity by some species. Breeding success may be impaired and a reduction in feeding opportunities could cause a decline in species abundance.

Woodland and scrub nesting species of high conservation concern such as song thrush, goldcrest and dunnock are most likely to be impacted by such disturbance, particularly if significant areas of such habitat are removed to facilitate works.

It is likely that if the woodland bounding the Site to the east and west is retained (as is anticipated) there will be no long-term impact on the breeding species recorded, or their abundance. There may be a short-term dispersal away from the Site during the construction phase, but recolonisation would be anticipated in the operational phase of the development.

Impact is likely to be high in the short-term and low to negligible in the long-term for bird species recorded in the Survey Area.

5.1.4 Pollution

There are hydrological pathways between the Site and the wider landscape (i.e. culverts draining from the Site, under Goat Mill Road and continuing to the east), pollution run-off has the potential to have a localised adverse impact in the short-term, although it should be noted that most waterbodies to the east of the Site are associated with a former open cast mining site and are likely to be impacted by extant pollution.

Long-term impacts through pollution are likely to be low once works are completed.

The potential short-term and long-term impacts and likely magnitude of impact discussed are based upon no mitigation measures being applied.

5.1.5 Lighting

In the short-term additional lighting is likely to be required for health and safety and security. If lighting is not controlled and directional, spill onto suitable breeding habitat such as retained woodland could cause birds to disperse away from the Site and increase the potential for nocturnal predation of eggs/young in nests

The most likely long-term impact on breeding birds in the absence of mitigation would be additional lighting in the operational phase that, if not directed away from retained woodland habitat, could deter some species from nesting, particularly along the western boundary that is already impacted to an extent by existing street lighting for Goat Mill Road.

If recommendations for mitigation, compensation and enhancement detailed in section 6 are followed, the magnitude of the adverse impacts on all species recorded as breeding, both short and long term, will be reduced and the proposed works will also be compliant with relevant wildlife legislation.

6. Recommendations

6.1 Mitigation

6.1.1 Timing of Works

Option 1 - All site clearance activities are undertaken outside of the breeding bird season.

Works should be carried out in such a way as to ensure that no birds, eggs or active nests are damaged or destroyed.

All site clearance (vegetation removal, topsoil stripping etc) and construction activities should be undertaken between September and February inclusive in order to avoid the main bird breeding season i.e., March to August inclusive. This is the most effective way of avoiding impacts and meeting legal requirements.

Option 2 - Partial site clearance activities undertaken during the bird breeding season.

If compliance with Option 1 is not fully possible then the majority of the vegetation clearance shall be undertaken outside the bird breeding season (September to February inclusive). Clearance of vegetation must be maintained in this period, and it is important that cut material is removed from site to ensure the area remains of low suitability for nesting birds; as species such as blackbird, dunnock and wren, which often select brash piles as nesting sites.

During the bird breeding season (March to August inclusive) other construction activities such as topsoil stripping shall only be undertaken once a suitably qualified ecologist has carried out a check for active bird nests. This will be carried out no more than 48 hours prior to commencement of works. If no active nests are identified works can proceed. If, however, an active nest is located a species-specific no works zone of undisturbed habitat (to be determined by the ecologist but no less than 5m) must be established around the nest until the ecologist is satisfied that the nest is no longer active.

Option 3 – Site clearance during the bird breeding season.

A pre-construction bird survey will be required if any vegetation clearance or topsoil stripping/earth moving is to be undertaken during the bird breeding season.

Prior to any construction activities (vegetation clearance, topsoil removal etc.) each area of suitable habitat will be searched by an ecologist within 48 hours of commencement of works to determine if nests are present.

If bird species are found to be nesting or constructing nests during this check, the ecologist will determine an appropriately sized exclusion zone dependent on species. Any exclusion zone must be maintained until the end of the breeding season or until young have fledged and left the vicinity of the nest site.

In the unlikely event that any Schedule 1 species such as red kite is found to be nesting at any time during the development a risk assessment would be required to determine the likelihood of birds being disturbed by the construction activities and to determine the appropriate extent of the exclusion zone, based upon a disturbance distance review carried out for Nature Scot (Goodship, N.M. and Furness, R.W., 2022). Any exclusion zone would need to be maintained until the end of the breeding season, once young become fully independent of the adult birds.

6.1.2 *Habitat Retention*

The retention of woodland habitat on the eastern and western boundaries of the Site is to be encouraged as this habitat held the overwhelming majority of breeding territories for species of high and medium and low conservation concern.

Retention will continue to provide good breeding habitat for a wide range of species and provide a habitat corridor for birds (and other species).

The retention of marshy ground in the northwest extent of the Site (or compensation on Site for its loss) is also recommended as this provided potential breeding habitat for Section 7 species reed bunting and is likely to support wintering species such as snipe (*Gallinago gallinago*) and jack snipe (*Lymnocryptes minimus*).

6.1.3 *Siting of Plant, Compounds, and Access Routes*

An ecologist with ornithological experience will be consulted prior to any construction of access routes, siting of plant, machinery, or compounds to minimise loss or disturbance to suitable breeding habitat and to avoid disturbance to nest sites of sensitive species.

6.1.4 *Pollution Control*

Standard best practice and pollution control measures must be implemented in accordance with relevant guidance (e.g., CIRIA, 2001 and Environment Agency (2018). Guidelines for Pollution Prevention (GPP), particularly GPP 5 Works and maintenance in or near water, outlined in NetRegs (NetRegs, 2018) to ensure that watercourses on site e.g., ponds and drainage channels, are not directly or indirectly adversely affected by silt, dust, uncontrolled surface water run-off, inappropriate storage of materials and/or inappropriate refuelling of machinery.

These measures must be detailed in a Risk Management Plan/ Construction Environmental Management Plan (CEMP).

All materials (especially if hazardous or toxic) must be stored securely at least 7m away from the watercourse.

All static machinery must be placed on drip-trays or oil absorbent nappies. Trays should be emptied regularly to ensure that they contain any spills.

Refuelling of machinery should not be carried out on site.

6.1.5 *Lighting*

Any temporary or permanent lighting plan must ensure that light spill onto woodland edge habitat is avoided to minimise the impact on breeding birds.

6.1.6 *Toolbox Talk*

All site operatives must receive a toolbox talk delivered by a suitably experienced ecologist prior to the commencement of work. The talk should cover the possible location of bird nests, nest identification and actions to be taken should a nest be discovered.

6.2 Enhancement

Planning Policy Wales (12th Ed., 2024) states that, 'planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity.'

6.2.1 Habitat Enhancement

Where woodland is removed, re-planting with native tree species on a 3:1 basis is recommended (Welsh Government, 2024), this will maintain and enhance habitat for woodland breeding bird species.

Particular consideration must be given to ensuring there is connectivity of suitable habitat for birds both within the Site and to the wider landscape.

Consideration should be given to creating new hedgerow habitat within the Site as part of the landscape masterplan. Planting of a wide range of locally sourced, native species would provide shelter, feeding and nesting locations.

Planting of native fruit or berry bearing trees within the Site would also provide food resources for a range of bird species.

Improvement of marshy grassland area for birds could be carried out and/ or incorporation of features near new attenuation ponds). Measures could include creation of shallow scrapes and pools to provide feeding and drinking resources for resident and migrant bird species.

6.2.2 *Installation of Small Bird Species Nest Boxes*

A range of bird boxes shall be installed in suitable habitat within the Site under the guidance of an ecologist to enhance nesting potential for small birds. These should include open-fronted boxes and boxes with holes of 25, 30 and 32mm diameter.

Schwegler nest boxes, or similar type, are recommended for durability. An example of suitable boxes can be found at https://www.nhbs.com

Note: *The recommendations made in this report should be considered alongside recommendations for faunal species and habitats in other reports in respect to these works.*

7. References

Bibby, C.J., Burgess, N.D. and Hill; D.A and Mustoe, S. (2000) Bird Census Techniques-Second Edition Academic Press, London.

Bird Survey & Assessment Steering Group. (2024). Bird Survey Guidelines for assessing ecological impacts, https://birdsurveyguidelines.org *[accessed 21 August 2024].*

BTO Birdtrack.https://app.bto.org/birdtrack/grid-refs/list-grid-species-new.jsp [Accessed:16 September 2024].

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2019) Advice note on the Lifespan of Ecological and Surveys Reports (Accessed online – 09.09.2024 at http //: cieem.net).

Environment (Wales) Act (2016).

European Ornithological Atlas Committee (1979). Categories of Breeding Bird Evidence. European Ornithological Atlas Committee.

FPCR (2021) Ecological Appraisal-Land off Goat Mill Road, Merthyr Tydfil. Sirius Planning.

FPCR (2022) Ecology Response-Land off Goat Mill Road, Merthyr Tydfil.Sirius Planning.

Gilbert, G., Gibbons, D.W., Evans, J. (1998) Bird monitoring methods. RSPB, Sandy, Bedfordshire.

Goodship, N.M. and Furness, R.W. (2022) Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. A report from MacArthur Green to NatureScot.

Google Earth (2024).

Gwent Ornithological Society (GOS) (2021) Gwent Bird Report Vol.55 2019.

Johnstone, I.G., Hughes, J., Balmer, D.E., Brenchley, A., Facey, R.J., Lindley, P.J., Noble, P.G., and Taylor, R.C. (2022). Birds of Conservation Concern in Wales 4: the population status of birds in Wales. Milvus: The Journal of the Welsh Ornithological Society.

Marchant, J. (1983) Common bird census instructions. BTO, Tring.

NetRegs (2018) Best Practice Guidelines (GPP) -Works and maintenance in or near water: GPP5 Available at http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/ Guidance for Pollution Prevention (GPPs) – Full list: https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/ [Accessed July 2024]

Stanbury, A., Eaton, M.A., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., Mulloch, N., Noble, D., and Win, I. (2021) Birds of Conservation Concern 5: The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isles of Man and second IUCN red list assessment of extinction risk for Great Britain. British Birds 114, 723-747.

South East Wales Biodiversity Records Centre (SEWBReC) (2024) Goat Mill Road, Merthyr [LERC Reference:0234-889].

Venables, W.A., Baker, A.D., Clarke, R.M., Jones, C., Lewis, J.M.S., and Tyler, S.J. (2008) The Birds of Gwent. Helm.

Welsh Government (2024). Planning Policy Wales. Edition 12. [Online]. [Accessed September 2024]. Available at: http://www.gov.uk

Wildlife and Countryside Act (1981) (as amended).

Drawings

- 70121691-RED-74-XX-M2-L-3003 Breeding Bird Survey Results (Territory mapping)

Key:

- Transect Route
- Site
- Site Area

Breeding Bird Territory -
High Conservation Concern:

- BF - Bullfinch
- D. - Dunnock
- GC - Goldcrest
- M. - Mistle Thrush
- RB - Reed Bunting
- ST - Song Thrush
- WW - Willow Warbler

Breeding Bird Territory -
Medium Conservation Concern:

- CH - Chaffinch
- CT - Coal Tit
- G. - Green Woodpecker
- WP - Woodpigeon
- WR - Wren

0 75 150 m

© 2024 Microsoft Corporation © 2024 Maxar © CNES (2024) Distribution Airbus DS

P01	NP	TF	GP	First Issue. 29/01/2025

Purpose of issue
S2 - Issued for Information

Classification
Public

Client
Merthyr Tydfil County Borough Council

Project
Goat Mill Road Enterprise Park
RIBA Stage 2

Drawing Title
Breeding Bird Survey Results
(Territory mapping)

Drawn NP Checked TF Approved GP

Project No	Date	Scale	Size
70121691	September 2024	1:3,000	A3

Drawing identifier Revision: P01
70121691-RED-74-XX-M2-L-3003

REDSTART
Quest House, St Mellons Business Park, Fortran Rd, St. Mellons, Cardiff, CF3 0EY
www.redstartwales.com

Appendix A - Desk Study Data

SEWBReC Data Summary

Protected and Priority Bird Species Within 2km of the Site

Protected/priority bird species records returned from SEWBReC within the last 10 years and within 2km of the Site) are provided in the following table.

Common name	Scientific name	Legislation/ conservation status	No. of records	Most recent record
Barn owl	*Tyto alba*	WCA1.1, WCA9, Bern, CITES	2	February 2021
Black-headed gull	*Chroicocephalus ridibundus*	BDir22, S7, WBR(RSPB), LBAP (GWY, VOG), UKBAm(RSPB)	13	November 2021
Bullfinch	*Pyrrhula pyrrhula*	S7, WBR(RSPB), UKBAm(RSPB)	25	2021
Cuckoo	*Cuculus canorus*	S7, WBR(RSPB), UKBR(RSPB)	9	May 2019
Curlew	*Numenius arquata*	BDir22, S7, WBR(RSPB)	5	2019
Dunnock	*Prunella modularis*	S7, Bern, UKBAm(RSPB)	61	2021
Fieldfare	*Turdus pilaris*	BDir22, WCA1.1, WBAm(RSPB), UKBR(RSPB)	1	November 2016
Goldeneye	*Bucephala clangula*	BDir22, UKBAm(RSPB)	2	2019
Goshawk	*Accipiter gentilis*	WCA1.1, WCA9, CITES	3	September 2016
Greenshank	*Tringa nebularia*	WCA1.1, WCA9, CITES	1	August 2016
Hen harrier	*Circus cyaneus*	BDir1, WCA1.1, S7, CITES, WBR(RSPB)	1	September 2015
Herring gull	*Larus argentatus*	BDir22, S7, WBR(RSPB), UKBR(RSPB)	73	2021
Hobby	*Falco subbuteo*	WCA1.1, Bern, CITES	1	August 2018
House sparrow	*Passer domesticus*	S7, WBAm(RSPB), UKBR(RSPB)	57	July 2021
Kestrel	*Falco tinnunculus*	S7, Bern, CITES, WBR(RSPB), UKBAm(RSPB	45	May 2021
Kingfisher	*Alcedo atthis*	BDir1, WCA1.1, Bern, WBAm(RSPB), UKBAm(RSPB)	6	September 2022
Lapwing	*Vanellus vanellus*	BDir22, S7, WBR(RSPB)	33	2021
Linnet	*Linaria cannabina*	S7, Bern, WBR(RSPB), UKBR(RSPB)	17	2021
Little ringed plover	*Charadrius dubius*	WCA1.1, Bern	6	2019
Merlin	*Falco columbarius*	BDir1, WCA1.1, Bern, CITES, WBR(RSPB), UKBR(RSPB)	1	March 2020
Peregrine	*Falco peregrinus*	BDir1, WCA1.1, Bern, CITES	5	June 2017
Red kite	*Milvus milvus*	BDir1, WCA1.1, WCA9, CITES, WBAm(RSPB)	75	December 2022
Redwing	*Turdus iliacus*	BDir22, WCA1.1, WBAm(RSPB), UKBR(RSPB)	1	October 2015
Reed bunting	*Emberiza schoeniclus*	S7, Bern, WBAm(RSPB), UKBAm(RSPB),	32	May 2020
Skylark	*Alauda arvensis*	BDir22, S7, Bern, WBAm	44	February 2020
Song thrush	*Turdus philomelos*	BDir22, S7, Bern, WBAm	46	2021
Spotted flycatcher	*Muscicapa striata*	S7, Bern, WBR(RSPB), UKBR(RSPB)	1	May 2016
Starling	*Sturnus vulgaris*	BDir22, S7, Bern, WBR(RSPB), UKBR(RSPB)	15	2021
Tree pipit	*Anthus trivialis*	S7, Bern, WBAm(RSPB), UKBR(RSPB)	3	2017
Whimbrel	*Numenius phaeopus*	BDir22, WCA1.1, WBAm(RSPB), UKBR(RSPB)	1	April 2019
Wood warbler	*Phylloscopus sibilatrix*	S7, WBR(RSPB), UKBR(RSPB)	1	May 2018

Species of Conservation Concern Within 2km of the Site

Records returned from SEWBReC within the last 10 years and within 2km of the Site for species of conservation concern are provided in the following table.

Common name	Scientific name	Legislation/ conservation status	No. of records	Most recent record
Common gull	*Larus canus*	BDir22, WBR(RSPB), UKBAm(RSPB)	4	April 2022
Common sandpiper	*Actitis hypoleucos*	WBR(RSPB), UKBAm(RSPB)	2	2019
Coot	*Fulica atra*	BDir21, LBAP (BRG), WBAm(RSPB)	48	2021
Cormorant	*Phalacrocorax carbo*	WBAm(RSPB)	12	March 2021
Dipper	*Cinclus cinclus*	Bern, LBAP (MTR) WBAm(RSPB), UKBAm(RSPB)	26	February 2023
Dunlin	*Calidris alpina*	Bern, WBR(RSPB), UKBAm(RSPB)	1	May 2019
Goldcrest	*Regulus regulus*	Bern, WBAm(RSPB)	24	July 2021
Great black-backed gull	*Larus marinus*	BDir22, WBR(RSPB), UKBAm(RSPB)	2	July 2019
Green woodpecker	*Picus viridis*	Bern, WBAm(RSPB)	19	2021
Greenfinch	*Chloris chloris*	Bern, WBAm(RSPB)	9	March 2021
Grey heron	*Ardea cinerea*	LBAP (RCT), WBAm(RSPB)	24	April 2021
Grey wagtail	*Motacilla cinerea*	Bern, WBAm(RSPB), UKBR(RSPB)	24	2021
Lesser black-backed gull	*Larus fuscus*	BDir22, WBAm(RSPB), UKBAm(RSPB)	49	2021
Long-tailed tit	*Aegithalos caudatus*	WBAm(RSPB)	56	January 2022
Mallard	*Anas platyrhynchos*	BDir21, WBAm(RSPB), UKBAm(RSPB)	107	2022
Meadow pipit	*Anthus pratensis*	Bern, WBAm(RSPB), UKBAm(RSPB)	75	2021
Mistle thrush	*Phoenicurus phoenicurus*	Bern, WBAm(RSPB), UKBAm(RSPB)	33	2021
Oystercatcher	*Haematopus ostralegus*	BDir22, WBAm(RSPB), UKBAm(RSPB)	1	October 2016
Redshank	*Tringa totanus*	BDir22, WBAm(RSPB), UKBAm(RSPB)	1	July 2019
Redstart	*Phoenicurus phoenicurus*	Bern, WBAm(RSPB), UKBAm(RSPB)	5	April 2018
Sand martin	*Riparia riparia*	Bern, WBAm(RSPB)	8	May 2021
Short-eared owl	*Asio flammeus*	BDir1, Bern, CITES, WBR(RSPB), UKBAm(RSPB),	2	February 2019
Shoveler	*Spatula clypeata*	BDir21, CITES, WBAm(RSPB), UKBAm(RSPB),	2	July 2021
Snipe	*Gallinago gallinago*	BDir21, WBAm(RSPB), UKBAm(RSPB)	4	March 2021
Southern cormorant	*Phalacrocorax carbo sinensis*	WBAm(RSPB)	2	2019
Swallow	*Hirundo rustica*	Bern, WBAm(RSPB)	36	2021
Swift	*Apus apus*	LBAP (RCT), WBAm(RSPB), UKBAm(RSPB)	30	June 2021
Teal	*Anas crecca*	BDir21, CITES, WBAm(RSPB), UKBAm(RSPB)	2	January 2016
Tufted duck	*Aythya fuligula*	BDir21, WBAm(RSPB)	8	June 2020
Wheatear	*Oenanthe oenanthe*	Bern, WBAm(RSPB)	38	June 2021
Whinchat	*Saxicola rubetra*	Bern, WBR(RSPB), UKBR(RSPB)	1	September 2018
Whitethroat	*Curruca communis*	WBR(RSPB)	8	June 2021
Wigeon	*Mareca penelope*	BDir21, CITES, WBAm(RSPB), UKBAm(RSPB)	7	2019
Willow warbler	*Phylloscopus trochilus*	WBR(RSPB), UKBAm(RSPB)	44	2021

Appendix B - Survey Details

Details of the Six Breeding Bird Survey Visits

Survey/ Surveyors	Date	Start time	Finish time	Survey conditions
1/Trevor Fletcher and Tara Okon	28/03/2024	06:25	08:55	**Temp (°C):** 3 at start, 7at finish **Cloud (Oktas):** 8 at start, 4 at finish **Wind (Beaufort):** 2 **Precipitation:** None **Visibility:** Very good
2/Trevor Fletcher and Megan Watts	28/05/2024	05:25	06:52	**Temp:** 12 at start,13 at finish **Cloud (Oktas):** 8 **Wind (Beaufort):** 2 **Precipitation:** Light rain at start, heavy shower at 06:10-6:20, then very light rain to end of survey. **Visibility:** Good
3/ Trevor Fletcher and Janine Burnham	07/06/2024	05:25	06:59	**Temp (°C):**9 at start, 13 at finish **Cloud (Oktas):** 6 at start, 2 at end **Wind (Beaufort):** 2 **Precipitation:** None **Visibility:** Very good
4/ Trevor Fletcher and Janine Burnham	18/06/2024	20:25	22:32	**Temp (°C):** 9 at start, 13 at finish **Cloud (Oktas):** 2 at start, 1 at finish **Wind (Beaufort):** 2 **Precipitation:** None **Visibility:** Very good
5/ Tara Okon and Natalie Pyatt	02/07/2024	05:20	08:10	**Temp (°C):**10 at start, 14 at finish **Cloud (Oktas):** 0 at start and finish **Wind (Beaufort):** 2 **Precipitation:** None **Visibility:** Very good
6/ Trevor Fletcher and Tara Okon	10/07/2024	05:20	06:55	**Temp (°C):**12 at start, 13 at finish **Cloud (Oktas):** 4 **Wind (Beaufort):** 2 **Precipitation:** None **Visibility:** Very good

Key: Cloud: scale 0 - 8, 0 = clear skies, 4 = 50% cover, 8 = complete cloud cover

Wind: Beaufort scale 0 – 12, 0 = calm, 2 = light breeze, 4 = moderate breeze, 6 = strong breeze, 7 = high wind, 9 = strong gale, 12 = hurricane

Appendix C - Legislation and Conservation Designations

Birds Directive (Directive 2009/147/EC)

Annex 1 of the Birds Directive lists species and sub-species which are:

- in danger of extinction;
- vulnerable to specific changes in their habitat;
- considered rare because of small populations or restricted local distribution;
- requiring particular attention for reasons of the specific nature of habitat.

For these species Member States must conserve their most suitable territories in number and size as Special Protection Areas (SPAs). Species listed on Annex 1 of the Birds Directive include kingfisher and red kite.

Wildlife and Countryside Act 1981 (as amended)
Schedule 1

All naturally occurring British bird species are protected under the Wildlife and Countryside Act 1981 (as amended). The legislation protects all birds, their nests and eggs and it is an offence to:

- intentionally kill, injure and take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; or
- intentionally take or destroy the egg of any wild bird.

Birds listed on Schedule 1 of the above legislation (e.g. kingfisher and red kite) are afforded further protection and it is an offence to:

- intentionally or recklessly disturb the bird while nest building or while at (or near) a nest with eggs or young; or disturb dependent young of such a bird.

Environment (Wales) Act 2016

Section 7 of the Environment (Wales) Act has replaced the Section 42 of the NERC Act 2006 in Wales. Section 7 lists the living organisms and types of habitat in Wales which are considered to be of key significance to sustain and improve biodiversity in relation to Wales.

The Act states that Welsh Ministers must 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.

Red and Amber Lists

Red-listed bird species are those which:

- Are globally threatened;
- Have suffered a historical population decline in the UK during 1800–1995;
- Have suffered a severe (at least 50%) decline in the UK breeding population over the last 25 years, or longer-term period (the entire period used for assessments since the first review, starting in 1969);
- Have suffered a severe (at least 50%) contraction of the UK breeding range over the last 25 years, or the longer-term period;

Amber-listed bird species are those which:

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

Appendix D - Nature Conservation Value-Definition of Terms

The examples selected for each Nature Conservation Value level are for general guidance and other considerations may apply, for example species of low value in isolation but subject to widespread national decline may be afforded higher Nature Conservation Values in some cases. The Nature Conservation Value levels are adapted from CIEEM (2016) and have been outlined to be specific to birds.

Nature Conservation Value	Selection Criteria (Examples)
International	Species cited as part of a SPA and which regularly occurs in internationally or nationally important numbers (i.e. >1% of international population.
National	Species cited as part of a SSSI and which regularly occurs in nationally or regionally important numbers. A nationally important assemblage of breeding or overwintering species. A species present in nationally important numbers (i.e. >1% of UK population). Rare breeding species (<300 breeding pairs in UK).
Regional	Section 7 priority species not covered above and regularly occurring in regionally important numbers. (>1% of regional population). Species on BoCCW3 and /or BoCCUK4 Red list and regularly occurring in regionally important numbers.
County/Metropolitan	Section 7 priority species not covered above and regularly occurring in county important numbers (>1% of county population). Species on the BoCCW3 and /or BoCCUK4 and regularly occurring in county important numbers.
District	Section 7 species not covered above and are rare in the locality. Species present in just short of county important numbers. Sustainable populations of rare or scarce species in the locality.
Local	Other section 7 species not covered above and species on the Red and Amber BoCCW4/BoCCUK5 lists regularly occurring in locally sustainable populations.
Site	All other BoCCW4 and /or BoCCUK5 Green listed common and widespread species. Low numbers of Amber or Red listed species.

Appendix E - Breeding Bird Species of High and Medium Conservation Concern-County Status

Status of breeding birds taken from most recent County avifauna-Eastern Glamorgan Bird Report number 60 (Glamorgan Bird Club, 2021). Alphabetically listed.

Common name	Scientific name	Status in East Glamorgan
Bullfinch	*Pyrrhula pyrrhula*	Common resident breeder.
Chaffinch	*Fringilla coelebs*	Common resident breeder.
Coal tit	*Periparus ater*	Common resident breeder.
Dunnock	*Prunella modularis*	Common resident breeder.
Goldcrest	*Regulus regulus*	Common resident breeder and passage migrant, though numbers can be depleted due to harsh winters.
Magpie	*Pica pica*	Common resident breeder.
Reed bunting	*Emberiza schoeniclus*	Locally common resident breeder, passage migrant and winter visitor.
Song thrush	*Turdus philomelos*	Common resident breeder.
Willow warbler	*Phylloscopus trochilus*	Common breeding summer visitor and passage migrant.
Woodpigeon	*Columba palumbus*	Common resident breeder.
Wren	*Troglodytes troglodytes*	Common resident breeder.

Appendix F - Species of Low Conservation Concern-Territories and Spatial Distribution

Common name	Scientific name	Breeding territories (or confirmed nest sites)	Peak count for non-territorial breeding species	Spatial distribution
Blackbird	*Turdus merula*	Minimum of six territories, adults recorded carrying food to nest site in the south of the Site.		Recorded in woodland across the Site, mainly eastern and western boundaries.
Blackcap	*Sylvia atricapilla*	At least six territories.		Mainly woodland edge and scrub on eastern and western Site boundary. Frequent singing throughout survey period from April onwards.
Blue tit	*Cyanistes caeruleus*	One confirmed breeding site. Likely under recorded.		Bred in an artificial box on Site, recorded widely across the Survey Area.
Chiffchaff	*Phylloscopus collybita*	At least six territories		In woodland / woodland edge on eastern and western Site boundaries. Frequently detected singing.
Garden warbler	*Sylvia borin*	Heard singing on one occasion.		On eastern boundary, in dense scrub.
Goldcrest	*Regulus regulus*	Probably two territories.		Recorded along roadside trees/ scrub in the north of the Site, and in north- eastern area of Site in conifers.
Goldfinch	*Carduelis carduelis*		14	Frequently noted in small numbers, usually flying over but occasionally in woodland and isolated trees in the northern part of the Site
Great tit	*Parus major*	Likely to be several across the Site. Adult recorded feeding young in the south of the Site.		Recorded across the Site in woodland and scrub habitat.
Jay	*Garrulus glandarius*		3	Mainly recorded in woodland on the eastern boundary of the Survey Area.
Long-tailed tit	*Aegithalos caudatus*	Confirmed nest site in gorse scrub in central area of Site		Occasionally recorded across the Site, mainly in woodland on the western boundary.
Nuthatch	*Sitta europaea*	Possibly one.		Recorded singing/ calling in woodland on the western boundary of the Site
Robin	*Erithacus rubecula*	At least five territories, possibly under recorded. Breeding confirmed in roadside scrub in the north of the Site.		Frequently recorded across the Site , mainly in woodland / woodland edge on Site boundaries and along roadside scrub in the north of the Site.
Treecreeper	*Certhia familiaris*	Possibly one, recorded in suitable habitat.		Recorded singing/ calling in woodland on the western boundary of the Site

Appendix G - Typical Habitats for Breeding Birds in the Survey Area

Habitat description	Photograph
Grassland with scattered willow and gorse scrub in central area of the Site. Few breeding territories in this area, nesting mainly confined to areas of dense gorse (*Ulex europaeus*) scrub by species such as dunnock (*Prunella modularis*) and long-tailed tit (*Aegithalos caudatus*). A single wheatear (*Oenanthe oenanthe*) was recorded during survey 1 in the grassland habitat, a recent migrant arrival resting before moving to breeding grounds.	
Mixed coniferous and broadleaved woodland on eastern boundary of Site, frequent breeding territories held by species such as chiffchaff (*Phylloscopus collybita*), blackcap (*Sylvia atricapilla*), song thrush (*Turdus philomelos*) and blackbird (*Turdus merula*).	
Marshy grassland in north -west area of Site, with woodland and scattered trees on western boundary. Reed bunting (*Emberiza schoeniclus*) recorded singing during one Site visit. Woodland breeding species included chiffchaff, robin (*Erithacus rubecula*) and blackcap.	

REDSTART

Quest House,
St Mellons Business Park,
Fortran Rd,
St. Mellons,
Cardiff,
CF3 0EY

www.redstartwales.com