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BREEDING BIRD SURVEY

At

The Oaks
Wrexham Industrial Estate
Wrexham
LL13 9RG

NGR: SJ 38806 49238

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EXECUTIVE SUMMARY

United Environmental Services (UES) Ltd. have been commissioned to undertake a Breeding Bird Survey at a parcel of land at The Oaks, off Redwither Road, on the Wrexham Industrial Estate. A suite of ecological surveys have been completed by UES at the site across 2022 and 2023. The bird surveys have been designed in order to establish how the site is used by breeding birds, how these populations may be affected by any proposed development and to inform any mitigation / compensation measures which may (or may not) be required. Detailed development proposals are not available at the time of writing, however the proposals will likely involve the development of part of the site for industrial / commercial use.

The survey methods broadly follow the British Trust for Ornithology (BTO) / Joint Nature Conservation Committee (JNCC) / Royal Society for the Protection of Birds (RSPB) breeding bird survey technique. A pre-determined transect route was walked throughout the survey area. Any bird species seen or heard was recorded, along with the number, sex, and behaviour where possible.

The land parcel has an area of approximately 24ha and predominantly comprises a large area dominated by dense scrub. Small areas of semi-improved grassland are present across the site including small glades amongst the scrub and pathways. Other habitats present include ponds, tall ruderal vegetation, areas of disturbed ground, mature scattered trees, watercourses at the site boundaries and areas of more mature scrub and broadleaved woodland. The habitats on site offer a wealth of nesting and foraging opportunities for a variety of bird species.

A total of 56 bird species were recorded during the surveys, 35 of which were assessed as confirmed or likely breeding within 50m of the survey boundary and a further 18 species assessed as possibly breeding. The majority of these species are considered common and widespread species, although many are of conservation concern (as discussed in Section 3.3).

Due to the potential removal of areas of suitable nesting and foraging habitat, it is considered likely that the proposed development will adversely affect a number of bird species of conservation concern. Compensation for the loss of nesting and foraging opportunities for the majority of birds identified on site is recommended and may be provided through the retention of the most valuable habitats in addition to the implementation of a well-designed landscaping scheme (on and / or off site), in addition to the provision of a suite of bird boxes, as detailed in Section 4.2.2. The provision of bird boxes may constitute an enhancement in the availability of nesting opportunities for species some species.

Any vegetation removal works (including enabling works) and any demolition or destructive works to buildings should be undertaken outside of the breeding bird season and should not be undertaken from March to August inclusive. If this is not possible and works need to take place during this period, a targeted breeding bird nest scoping survey should be conducted immediately prior to the works, and / or an ecological clerk of works (ECoW) appointed to oversee the works. This survey / ECoW should be undertaken by an ecologist that is competent enough to identify breeding Schedule 1 species due to their potential presence.

The report should be read in conjunction with appendices 1 to 4, which provide visual representations of the survey results and statutory and planning context.

1 INTRODUCTION

1.1 Author, surveyors, qualifications and experience

This report is compiled and written by Alasdair Grubb BSc ACIEEM, UES Subcontractor. Alasdair is an experienced ecologist and ornithologist, with over 12 years' experience in the ecology and conservation industry. Alasdair has the knowledge, skills and experience to conduct a robust breeding bird survey.

1.2 Survey objectives

UES was commissioned in March 2023 to conduct site surveys which include the following activities:

- Conduct six survey visits between March and August, based on the BTO / JNCC / RSPB breeding bird survey technique
- Assess the suitability of the site for use by different bird species
- Provide advice on any potential requirement for mitigation or compensation

1.3 Proposed development

At the time of writing, the development proposals are not complete, however the proposals are likely to comprise construction of industrial / commercial units and associated access infrastructure.

1.4 Structure of the report

This report sets out the methodology, results, recommendations and compensation measures in relation to breeding birds. Recommendations are in line with statutory legislation and planning policy objectives.

The report should be read in conjunction with appendices 1 to 4, which provide visual representations of the survey results and statutory and planning context.

2 METHODOLOGY

2.1 Desk study

As part of a Preliminary Ecological Appraisal (PEA) undertaken of the site by UES in November 2022 (see report reference UES03918/02), a desk study, including a biological records search of designated sites and protected or otherwise notable species within 2km of the proposed development site, was undertaken through Cofnod (the North Wales Environmental Information Service).

2.2 Field survey

The survey methodology broadly followed the BTO / JNCC / RSPB breeding bird survey technique. This technique records the location and movements of individual birds present within a defined survey area.

Six survey visits were undertaken between March and August 2023, in order to undertake population territory mapping of key bird species found on site. The surveys were started within one hour of sunrise, in order to observe the period of peak bird activity. Weather conditions during each survey were recorded and are presented in the table below. Site visits were not undertaken in heavy rain, very poor visibility or strong wind.

Table 1 – Survey dates and weather conditions

SITE VISIT N^{O}	DATE	Temp (°C)	CLOUD COVER (%)	RAIN	WIND (0-12)	VISIBILITY
1	31.03.2023	9	100	Light for 10 mins	1	Good
2	15.04.2023	6 - 12	30	0	0 – 1	Good
3	07.05.2023	14	5	0	0	Good
4	19.06.2023	11 - 16	5	0	0 – 1	Good
5	20.07.2023	13	100	Light for 10 mins	1	Good
6	04.08.2023	14	100	0	1 – 3	Good

On each survey visit, a pre-determined transect route (see Appendix 1 – Site plan) was walked throughout the survey area by the surveyor, equipped with binoculars. The surveyor stopped at points during the transect, where a good vantage point of the site was possible; this was done to enable the surveyor to observe bird behaviours. The starting point and route direction were varied during each survey to reduce survey bias.

During the survey visits, the following details were recorded:

- Bird species, numbers, age and sex (where possible)
- Bird behaviour (e.g. singing, calling, feeding, territorial aggression)
- Any associations with particular habitat types or locations

These registrations were recorded on a map using the recognised BTO species codes (see Appendix 2 – Survey results).

The data collected was then assessed and bird species were categorised according to the following definitions:

- Confirmed breeding: Includes species for which territories were positively identified as a result of the number of registrations, the location of an active nest or the presence of recently fledged young.

- Likely breeding: Includes a pair observed in suitable nesting habitat in the breeding season, agitated behaviour and / or alarm calls from adults suggesting the probable presence of a nest or young nearby. Behaviour observed on an insufficient number of occasions to confirm the presence of a territory.

- Possible breeding: Includes species observed in breeding season in suitable nesting habitat with a singing male present or breeding calls heard.

- Non-breeding: Fly over species observed but suspected to be still on migration or summering non-breeders.

In addition to the targeted bird surveys, a suite of ecological surveys have been undertaken of the site by UES throughout 2023 (including nocturnal surveys) and incidental records of key bird sightings were also recorded; these incidental records contribute to the site species list (see Appendix 2) and are included the discussion in Section 4.

The field survey data was then analysed in relation to the conservation status of each species recorded on site. Species conservation status is based on the following recognised lists:

- Global IUCN Red List of Threatened Species: Extinct, Critically Endangered, Endangered, Vulnerable or Near Threatened
- Birds of Conservation Concern 5 List (BoCC): Red, Amber or Green
- Population Status of Birds in Wales list (PSBW): Red, Amber or Green

The data was also analysed against the following articles of legislation:

- Wildlife and Countryside Act, 1981 (WCA): Schedule 1 species
- Environment (Wales) Act 2016: Section 7 species
- The EU 'Birds Directive': Annexe 1 species
- UK Rare Breeding Birds Panel (RBBP) species

2.3 Survey limitations

The surveys were undertaken under appropriate weather conditions at an appropriate time of year. Dense scrub is present through a large part of the site, however suitable access routes were created along the survey transect to ensure that the whole site was covered to allow a robust survey. No significant limitations were encountered during the surveys.

3 RESULTS

3.1 Desk study

As part of the PEA, a desk study, including a biological records search of designated sites and protected or otherwise notable species within 2km of the proposed development site, was undertaken through Cofnod in November 2022.

There are no protected sites (statutorily or non-statutorily) within 2km of the proposed development site that specifically cite bird assemblages or specific bird species on the citation.

Various species records were returned from within 2km of the site, including several Species of Principal Importance and Wildlife and Countryside Act 1981 Schedule 1 species. Records of the following species were returned from within the site boundary itself: bullfinch *Pyrrhula pyrrhula*, buzzard *Buteo buteo*, blackcap *Sylvia atricapilla*, great spotted woodpecker *Dendrocopos major*, green woodpecker *Picus viridis*, chiffchaff *Phylloscopus collybita*, whitethroat *Sylvia communis* and Cetti's warbler *Cettia cetti*.

3.2 Habitat description

The Oaks is located within Wrexham Industrial Estate, south-east of the City of Wrexham. The land parcel has an area of approximately 24ha and comprises a large area dominated by dense scrub. Small areas of semi-improved grassland are present across the site, including small glades amongst the scrub and pathways. The River Clywedog flows along the southern site boundary and the Redwither Brook flows along part of the western boundary. Both watercourses are bordered by a band of riparian woodland. Numerous buildings are present across the site and a number of ponds are present, although most are in a late successional stage and only hold water for part of the year. Other habitats present on site include hardstanding access tracks, small areas of marshy grassland, tall ruderal vegetation, bare ground, scattered broadleaved trees and ephemeral / short perennial vegetation.

The surrounding area comprises commercial, office and warehouse buildings to the north and west. Habitats to the south and east feature mixed farmland, which is well connected by mature hedgerows and tree lines. In addition, Redwither Brook and the Clywedog River flow to the west and south-west of the site providing further connectivity through the local area.

3.3 Field survey

A total of 56 species were recorded during the field surveys, including:

- 6 Section 7 species[1]
- 7 Red List and 12 Amber List species (Wales[2])
- 6 Red List and 20 Amber List species (BoCC[3])
- 4 Schedule 1[4]
- 1 Near Threatened species[5]

[1] Section 7 of the Environment (Wales) Act 2016
[2] Population Status of Birds in Wales list
[3] Birds of Conservation Concern 5
[4] Wildlife & Countryside Act Schedule 1 breeding species
[5] Near Threatened species on the Global IUCN Red List of Threatened Species

All observations and a full species list of the surveys are provided at Appendix 2 – Survey results.

3.3.1 Confirmed / likely breeding species

Of the 56 bird species recorded, 35 were assessed as confirmed or likely breeding within 50m of the redline boundary. Of these 35 species, the following 14 are considered to be of conservation concern:

BTO Code	Common name	Scientific Name	Conservation Status	Cymraeg	Breeding status
SD	Stock Dove	*Columba oenas*	Amber (GB)	Colomen Wyllt	Likely breeding
WP	Woodpigeon	*Columba palumbus*	Amber (GB)	Ysguthan	Breeding
SH	Sparrowhawk	*Accipiter nisus*	Amber (GB)	Gwalch Glas	Likely breeding
TO	Tawny Owl	*Strix aluco*	Amber (GB)	Tylluan Frech	Likely breeding
WW	Willow Warbler	*Phylloscopus trochilus*	Amber (GB); Red (Wales)	Telor yr Helyg	Likely breeding
SW	Sedge Warbler	*Acrocephalus schoenobaenus*	Amber (GB)	Telor yr Hesg	Likely breeding
WH	Whitethroat	*Curruca communis*	Amber (GB), Red (Wales)	Llwydfron	Breeding
WR	Wren	*Troglodytes troglodytes*	Amber (GB)	Dryw	Breeding
SG	Starling	*Sturnus vulgaris*	Red (GB, Wales); Sec7	Drudwen	Likely breeding
ST	Song Thrush	*Turdus philomelos*	Amber (GB, Wales); Sec7	Bronfraith	Breeding
M.	Mistle Thrush	*Turdus viscivorus*	Red (GB); Amber (Wales)	Brych y Coed	Likely breeding
D.	Dunnock	*Prunella modularis*	Amber (GB); Sec7	Llwyd y Gwrych	Breeding
BF	Bullfinch	*Pyrrhula pyrrhula*	Amber (GB); Red (Wales); Sec7	Coch y Berllan	Breeding
GR	Greenfinch	*Chloris chloris*	Red (GB); Amber (Wales)	Llinos Werdd	Likely breeding

A peak count of 3 singing stock doves were recorded during the first survey (March) and they were recorded on each survey between March and June. Singing woodpigeons were recorded during all surveys, with a peak count of 25 singing birds during the May survey. An active woodpigeon nest was identified in the western section of the site during the May survey too.

Single sparrowhawks were observed during 4 of the 6 surveys, with an alarm calling bird heard on the May survey.

A tawny owl was observed roosting in a tree in the southern section of the site (with a large amount of whitewash present) during the July survey and a moulted feather was identified in the southern section of the site during the May survey. Additionally, calling birds were identified on numerous other ecological surveys (bat and newt) undertaken at night.

Willow warblers were heard singing on all surveys (with the exception of the March survey), with a peak count of 11 singing males during the May survey.

Sedge warblers were heard singing on the May and June surveys in tall grassland and scattered scrub in the south-eastern section of the site close to a ditch. The peak count was 2 singing males in May.

Whitethroats were identified on all surveys (with the exception of the March survey), with a peak count of 7 singing males during the May survey. Birds were observed carrying food during the June and July surveys and alarm calling during June and August.

Wrens were the most commonly recorded species, identified singing during all of the surveys. A peak count of 32 singing males was recorded during the March and April surveys, with a mean count of 23.8 singing males across all 6 surveys. 2 active nests were identified during the March survey.

A single starling was heard singing during the April and June surveys.

Song thrushes were heard singing during all surveys with the exception of the August survey; a peak count of 4 singing males was recorded during the June survey. Mistle thrushes were less common, only being recorded during the first 2 surveys; singing during March and alarm calling during April.

Dunnocks were recorded regularly through the surveys with a peak count of 20 singing males on the April survey. An active nest was identified during the March survey.

Bullfinches were recorded regularly throughout the surveys with the exception of the June survey. A peak count of 6 territories were recorded during the March survey and recently fledged juveniles were observed during the August survey.

Singing greenfinches were recorded in the March (1), April (3), July (2) and August (2) surveys.

3.3.2 Possible breeding

A further 18 species were assessed as possible breeding within 50m of the site; the following 13 species are considered to be of conservation concern or are protected by UK legislation:

BTO Code	Common name	Scientific Name	Conservation Status	Cymraeg	Breeding status
MA	Mallard	*Anas platyrhynchos*	Amber (GB, Wales)	Hwyaden Wyllt	Possible breeding
MH	Moorhen	*Gallinula chloropus*	Amber (GB)	Iâr Ddŵr	Possible breeding
GB	Great Black-backed Gull	*Larus marinus*	Amber (GB); Red (Wales)	Gwylan Gefnddu Fwyaf	Possible breeding
HG	Herring Gull	*Larus argentatus*	Red (GB, Wales); Sec7	Gwylan y Penwaig	Possible breeding
LB	Lesser Black-backed Gull	*Larus fuscus*	Amber (GB, Wales)	Gwylan Gefnddu Leiaf	Possible breeding
KF	Kingfisher	*Alcedo atthis*	Green (GB), Amber (Wales); Sch1.1; Ann1	Glas y Dorlan	Possible breeding
RO	Rook	*Corvus frugilegus*	Amber (GB)	Ydfran	Possible breeding
CW	Cetti's Warbler	*Cettia cetti*	Green (GB); Sch1.1	Telor Cetti	Possible breeding
HS	House Sparrow	*Passer domesticus*	Red (GB); Amber (Wales); Sec7	Aderyn y Tô	Possible breeding
GL	Grey Wagtail	*Motacilla cinerea*	Amber (GB, Wales)	Siglen Lwyd	Possible breeding
PW	Pied Wagtail	*Motacilla alba yarellii*	Amber (GB)	Siglen Fraith	Possible breeding
LI	Linnet	*Linaria cannabina*	Red (GB, Wales); Sec7	Llinos	Possible breeding

Single mallards and moorhens were only recorded during the first 2 surveys, however suitable habitat is present, particularly in the southern section of the site.

Larus spp. were recorded flying over the site regularly and perched around the recycling centre adjacent to the west of the site. They were not identified as breeding onsite and onsite

breeding opportunities are limited; however they may breed in proximity to the site on the roofs of the neighbouring commercial units.

A single kingfisher was recorded during another ecological survey during April, though they were not recorded during any of the breeding bird surveys. Suitable habitats are present for breeding kingfishers along the River Clywedog and Redwither Brook.

Rooks were recorded throughout the surveys, either flying over the site or perched around the recycling centre adjacent to the west of the site. There is suitable habitat present for breeding rooks throughout the site, however no rookeries were identified during the surveys.

Two Cetti's warblers were heard singing in the western section of the site during the first survey, but not during any other surveys. There is suitable habitat present on site for Cetti's warblers, though due to lack of singing throughout the breeding season, it is considered unlikely that they bred on site this year; the singing birds were likely wintering birds.

House sparrows were recorded adjacent to the far-western site boundary, during the first 2 surveys. It is possible that they use adjacent buildings to breed, however it is unlikely that they use the site for nesting due to limited nesting opportunities.

A single grey wagtail was recorded along the River Clywedog during the May survey. Suitable nesting habitat is present along this watercourse, however they were not recorded during any other surveys.

Pied wagtails were recorded during the April and July surveys flying over the site. There are suitable nesting opportunities for this species on site.

Single linnets were identified during the July and August surveys. Although they were not recorded during the other surveys, there is suitable habitat present for breeding linnets on site.

3.3.3 Non-breeding species

Other species of conservation concern, but are not considered as breeding species are:

BTO Code	Common name	Scientific Name	Conservation Status	Cymraeg	Breeding status
H.	Grey Heron	*Ardea cinerea*	Green (GB), Amber (Wales)	Crëyr Glas	Non breeding
BO	Barn Owl	*Tyto alba*	Green (GB); Sch1.1	Tylluan Wen	breeding
RE	Redwing	*Turdus iliacus*	NT; Amber (GB, Wales); Sch1.1; RBBP	Coch Dan Adain	Non breeding
RT	Redstart	*Phoenicurus phoenicurus*	Amber (GB)	Tingoch	Non breeding

Single grey herons were recorded during the March and May surveys, in the southern section of the site, however no heronries were identified on or adjacent to the site. It is likely they use the River Clywedog for foraging.

A single barn owl was observed flying in fields south of the site during the first survey; no other evidence of barn owls was identified. Furthermore, no evidence of barn owls has been identified during any of the other ecological surveys on site (through building and aerial tree inspections). Therefore, they are not considered likely to breed on site.

Redwings were recorded during the March survey only. They use the site for wintering purposes only.

A single redstart was recorded at the end of April during another ecological survey on site. No other observations were made and no breeding behaviour was recorded; therefore it is likely that the bird observed was on passage.

4 EVALUATION AND RECOMMENDATIONS

4.1 Evaluation of results and Impacts

A total of 56 bird species were recorded during the surveys, 35 of which were assessed as confirmed or likely breeding within 50m of the survey boundary and a further 18 species possibly breeding. The majority of these species are considered common and widespread species, although many are of conservation concern.

The development proposals have not been finalised at the time of writing; however they are likely to be limited to a relatively small proportion of the site and there are not due to be any adverse impacts the mature woodland or any areas adjacent to watercourses. As such, some of the species discussed in Section 3.3 are not considered likely to suffer significant loss of nesting and / or foraging opportunities:

- Sparrowhawks and tawny owls were recorded in the southern section of the site which is likely to remain unaffected.

- Sedge and Cetti's warblers were only recorded in the western section of the site which will currently remain unaffected.

- Kingfisher, grey wagtail, mallard and moorhen are generally associated with the watercourses which are unlikely to be impacted.

Gull species were only recorded as flyover species; not recorded using the site for breeding, foraging or roosting. Although it is possible that they may breed adjacent to the site, they are not likely to be directly affected by the development proposals.

The development will likely require large-scale vegetation removal. Of the species assessed as confirmed or likely breeding on site, the following will likely suffer loss of nesting and or foraging opportunities: Stock dove, woodpigeon, willow warbler, whitethroat, wren, starling, song thrush, mistle thrush, dunnock, bullfinch, greenfinch.

Without appropriate mitigation, site clearance and vegetation removal may result in the direct loss of nests (and any individuals within the nests) if conducted during the breeding season.

Two Schedule 1 breeding species were recorded during the surveys and are assessed as 'possibly' breeding on or within 50m of the site: Cetti's Warbler and Kingfisher (although they were not recorded within the areas likely to be impacted by any proposed development). If these species are breeding on or within the vicinity of the development boundary, they may be subject to disturbance during the construction phase of the development.

4.2 Mitigation and compensation

4.2.1 Site clearance and vegetation removal

Any vegetation removal works (including enabling works) and any demolition or destructive works to buildings should be undertaken outside of the breeding bird season and should not be undertaken from March to August inclusive. If this is not possible and works need to take place during this period, a targeted breeding bird nest scoping survey should be conducted immediately prior to the works, and / or an ECoW appointed to oversee the works. This survey

/ ECoW should be undertaken by an ecologist that is competent enough to identify breeding Schedule 1 species due to their potential presence.

4.2.2 Landscaping and habitat creation

At the time of writing, the site layout has not been finalised and no landscaping proposals are available. However it is recommended that compensation for the loss of suitable nesting and foraging habitats is offered through appropriate landscaping and habitat creation (either on site or elsewhere within the local area).

Principles and landscaping ideas relevant to the site and beneficial to a variety of bird species present locally include:

- Planting of, or retention of, native trees and areas of dense scrub to offer suitable nesting and sheltering opportunities.
- Planting of berry and nut bearing shrub species to offer foraging opportunities.
- Management of trees, scrub and shrubs which develop a mosaic of structures to support breeding birds.
- Use of nectar bearing wildflowers to encourage invertebrates (such as bees, beetles, flies and butterflies).

Planted species are to be native, of local provenance or to have a proven benefit to biodiversity. See Appendix 3 – Landscape design for birds for more detailed information.

When considering future management of the landscaped habitats on site, excessive removal or pruning of shrubs should be avoided to maximise growth and plant matter available to wildlife. Pruning should be left until late winter to leave seeds and berries for wintering wildlife and ensure no impact on breeding / nesting birds.

In addition to habitat provisions, a suite of nest boxes could be provided to compensate for the loss of nesting opportunities for some species. The provision of bird boxes may also constitute an enhancement in the availability of nesting opportunities for species some species. The following examples of boxes will provide opportunities for species recorded during the surveys:

- Schwegler 1SP sparrow terrace
- Schwegler 1B nest box
- Schwegler 3S starling nest box
- Schwegler No.10 Swallow nest cups
- Eco Barn Owl nest box
- Eco Tawny Owl nest box (also suitable for stock dove and jackdaw)
- Kestrel box

The bird boxes should be sited at a minimum height of three meters. Unless there are trees which shade the box during the day, the boxes should be oriented between north and east, thus avoiding strong sunlight and the wettest winds.

5 CONCLUSION

A total of 56 bird species were recorded during the surveys, 35 of which were assessed as confirmed or likely breeding within 50m of the redline boundary and a further 18 species possibly breeding. The majority of these species are considered common and widespread species, although many are of conservation concern.

The development will likely require large-scale vegetation removal. Without appropriate mitigation, site clearance and vegetation removal may result in the direct loss of nests (and any individuals within the nests) if conducted during the breeding season.

Mitigation measures detailed in Section 4.2.1 will reduce the likelihood of direct impact to nesting birds. Compensation for the loss of nesting and foraging opportunities for the majority of birds identified on site, is recommended, and may be provided through well designed landscaping (on or off-site), in addition to the provision of a suite of nest boxes, as detailed in Section 4.2.2.

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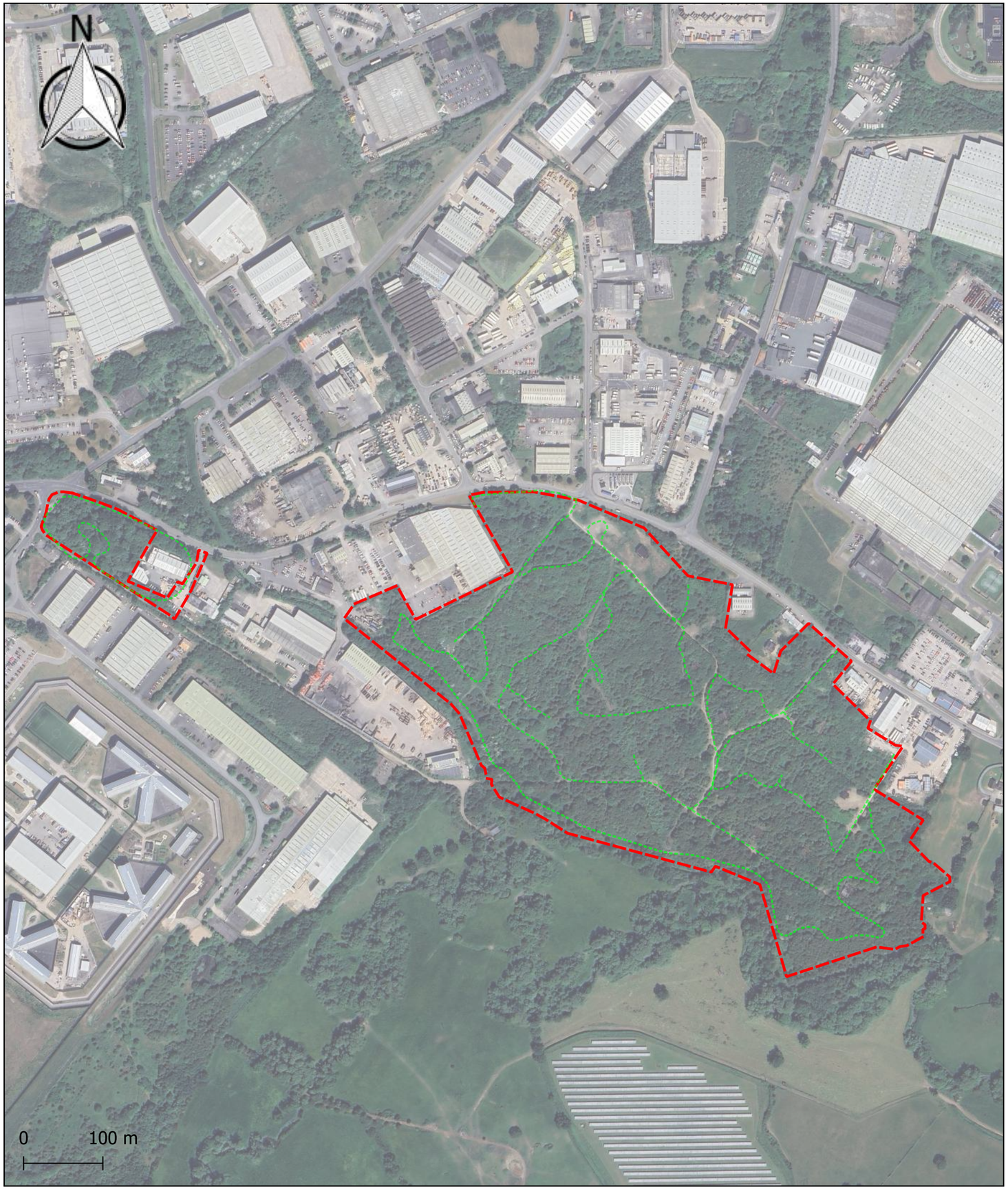
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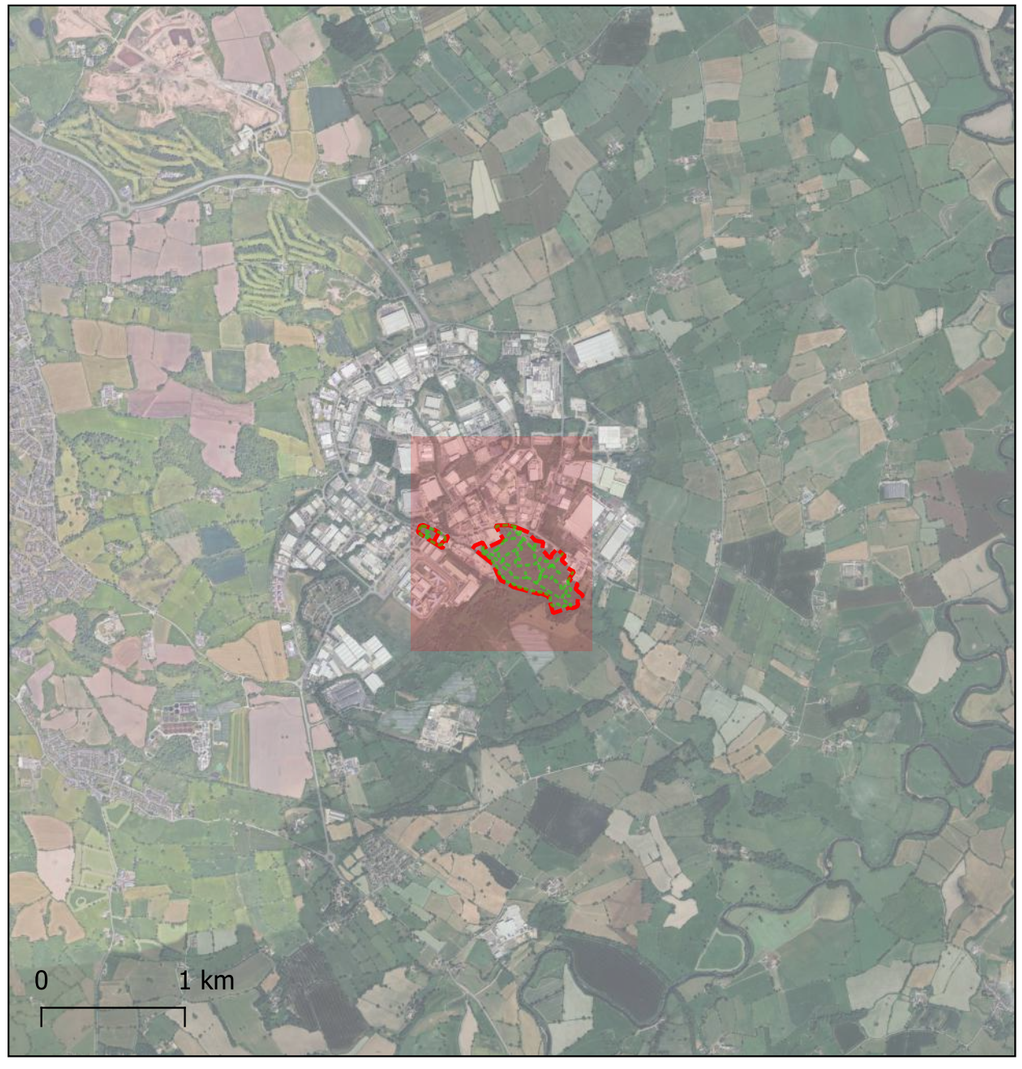
APPENDICES

Appendix 1 – Site plan

Site Plan and Aerial Photographs

Site: The Oaks, Wrexham Industrial Estate
NGR: SD 796 190
Author: Alasdair Grubb
Date: 21/05/2024





KEY:

Site Boundary

Transect route

THIS PLAN IS BASED UPON MAP DATA © 2024 GOOGLE IMAGERY © 2024 GOOGLE.

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Appendix 2 – Survey results

BTO Code	Common name	Scientific Name	Conservation Status	Cymraeg	Breeding status
CG	Canada Goose	*Branta canadensis*		Gŵydd Canada	Possible breeding
MA	Mallard	*Anas platyrhynchos*	Amber (GB, Wales)	Hwyaden Wyllt	Possible breeding
PH	Pheasant	*Phasianus colchicus*		Ffesant	Likely breeding
FP	Feral Pigeon	*Columba livia*	Green (GB)	Colomen Ddof	Likely breeding
SD	Stock Dove	*Columba oenas*	Amber (GB)	Colomen Wyllt	Likely breeding
WP	Woodpigeon	*Columba palumbus*	Amber (GB)	Ysguthan	Breeding
CD	Collared Dove	*Streptopelia decaocto*	Green (GB)	Turtur Dorchog	Likely breeding
MH	Moorhen	*Gallinula chloropus*	Amber(GB)	Iâr Ddŵr	Possible breeding
GB	Great Black-backed Gull	*Larus marinus*	Amber (GB); Red (Wales)	Gwylan Gefnddu Fwyaf	Possible breeding
HG	Herring Gull	*Larus argentatus*	Red (GB, Wales); Sec7	Gwylan y Penwaig	Possible breeding
LB	Lesser Black-backed Gull	*Larus fuscus*	Amber (GB, Wales)	Gwylan Gefnddu Leiaf	Possible breeding
H.	Grey Heron	*Ardea cinerea*	Green (GB), Amber (Wales)	Crëyr Glas	Non-breeding
SH	Sparrowhawk	*Accipiter nisus*	Amber (GB)	Gwalch Glas	Likely breeding
BZ	Buzzard	*Buteo buteo*	Green (GB)	Bwncath	Possible breeding
BO	Barn Owl	*Tyto alba*	Green (GB); Sch1.1	Tylluan Wen	Non-breeding
TO	Tawny Owl	*Strix aluco*	Amber (GB)	Tylluan Frech	Likely breeding
KF	Kingfisher	*Alcedo atthis*	Green (GB), Amber (Wales); Sch1.1; Ann1	Glas y Dorlan	Possible breeding
GS	Great Spotted Woodpecker	*Dendrocopos major*	Green (GB)	Cnocell Fraith Fwyaf	Likely breeding
J.	Jay	*Garrulus glandarius*	Green (GB)	Sgrech y Coed	Likely breeding
MG	Magpie	*Pica pica*	Green (GB)	Pioden	Breeding
JD	Jackdaw	*Coloeus monedula*	Green (GB)	Jac-y-do	Likely breeding
RO	Rook	*Corvus frugilegus*	Amber (GB)	Ydfran	Possible breeding
C.	Carrion Crow	*Corvus corone*	Green (GB)	Brân Dyddyn	Breeding
CT	Coal Tit	*Periparus ater*	Green (GB)	Titw Penddu	Likely breeding
BT	Blue Tit	*Cyanistes caeruleus*	Green (GB)	Titw Tomos Las	Likely breeding
GT	Great Tit	*Parus major*	Green (GB)	Titw Mawr	Likely breeding
SL	Swallow	*Hirundo rustica*	Green (GB)	Gwennol	Possible breeding
CW	Cetti's Warbler	*Cettia cetti*	Green (GB); Sch1.1	Telor Cetti	Possible breeding
LT	Long-tailed Tit	*Aegithalos caudatus*	Green (GB), Amber (Wales)	Titw Cynffon-hir	Breeding
WW	Willow Warbler	*Phylloscopus trochilus*	Amber (GB); Red (Wales)	Telor yr Helyg	Likely breeding
CC	Chiffchaff	*Phylloscopus collybita*	Green (GB)	Siff-siaff	Breeding
SW	Sedge Warbler	*Acrocephalus schoenobaenus*	Amber (GB)	Telor yr Hesg	Likely breeding
BC	Blackcap	*Sylvia atricapilla*	Green (GB)	Telor Penddu	Likely breeding
GW	Garden Warbler	*Sylvia borin*	Green (GB)	Telor yr Ardd	Possible breeding
LW	Lesser Whitethroat	*Curruca curruca*	Green (GB)	Llwydfron Fach	Likely breeding

BTO Code	Common name	Scientific Name	Conservation Status	Cymraeg	Breeding status
WH	Whitethroat	*Curruca communis*	Amber (GB), Red (Wales)	Llwydfron	Breeding
GC	Goldcrest	*Regulus regulus*	Green (GB), Amber (Wales)	Dryw Eurben	Likely breeding
WR	Wren	*Troglodytes troglodytes*	Amber (GB)	Dryw	Breeding
NH	Nuthatch	*Sitta europaea*	Green (GB)	Delor y Cnau	Likely breeding
TC	Treecreeper	*Certhia familiaris*	Green (GB)	Dringwr Bach	Likely breeding
SG	Starling	*Sturnus vulgaris*	Red (GB, Wales); Sec7	Drudwen	Likely breeding
ST	Song Thrush	*Turdus philomelos*	Amber (GB, Wales); Sec7	Bronfraith	Breeding
M.	Mistle Thrush	*Turdus viscivorus*	Red (GB); Amber (Wales)	Brych y Coed	Likely breeding
RE	Redwing	*Turdus iliacus*	NT; Amber (GB, Wales); Sch1.1; RBBP	Coch Dan Adain	Non-breeding
B.	Blackbird	*Turdus merula*	Green (GB)	Mwyalchen	Breeding
R.	Robin	*Erithacus rubecula*	Green (GB)	Robin Goch	Breeding
RT	Redstart	*Phoenicurus phoenicurus*	Amber (GB)	Tingoch	Non-breeding
HS	House Sparrow	*Passer domesticus*	Red (GB); Amber (Wales); Sec7	Aderyn y Tô	Possible breeding
D.	Dunnock	*Prunella modularis*	Amber (GB); Sec7	Llwyd y Gwrych	Breeding
GL	Grey Wagtail	*Motacilla cinerea*	Amber (GB, Wales)	Siglen Lwyd	Possible breeding
PW	Pied Wagtail	*Motacilla alba yarellii*	Amber (GB)	Siglen Fraith	Possible breeding
CH	Chaffinch	*Fringilla coelebs*	Green (GB)	Ji-binc	Possible breeding
BF	Bullfinch	*Pyrrhula pyrrhula*	Amber (GB); Red (Wales); Sec7	Coch y Berllan	Breeding
GR	Greenfinch	*Chloris chloris*	Red (GB); Amber (Wales)	Llinos Werdd	Likely breeding
LI	Linnet	*Linaria cannabina*	Red (GB, Wales); Sec7	Llinos	Possible breeding
GO	Goldfinch	*Carduelis carduelis*	Green (GB)	Nico	Breeding

Key:

EX/CR/EN/VU/NT:	Extinct, Critically Endangered, Endangered, Vulnerable or Near Threatened on the Global IUCN Red List of Threatened Species
Red/Amber/Green (GB):	Red, Amber or Green listed on the Birds of Conservation Concern 5 List
Red/Amber/Green (Wales):	Red, Amber or Green listed on the Population Status of Birds in Wales list
Sch1.1/1.1A/A1/1.2:	Schedule 1 part 1, 1 part 1A, A1 or 1 part 2 of the Wildlife and Countryside Act 1981 (as amended)
Sec7:	Section 7 of the Environment (Wales) Act 2016
Ann1:	Listed on Annex I of The Birds Directive
RBBP:	Listed as one of the species that the UK Rare Breeding Bird Panel reports on; breeding records of these species should be shared with the relevant county recorder



Bird Survey Map 1

Surveyors: AG

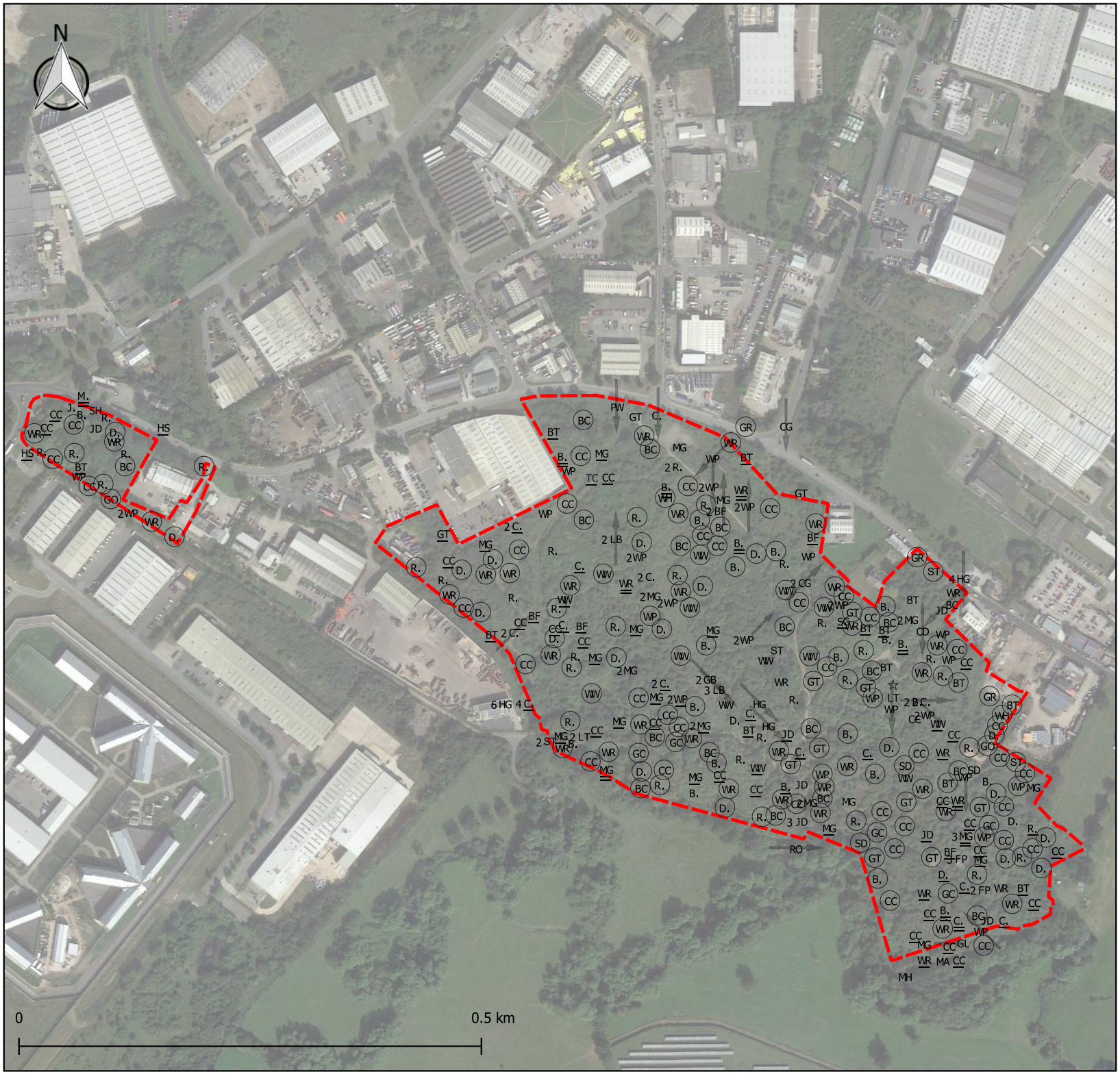
Date: 31.03.2023
Start: 06:15
Finish: 10:45

Temp: 9 *C
Wind: 1 BFS
Rain: Light drizzle for 10 mins
CC: 100%

Notes:

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Bird Survey Map 2

Surveyors: AG

Date: 15.04.2023
Start: 06:00
Finish: 10:30

Temp: 6 - 12 *C
Wind: 0 - 1 BFS
Rain: 0
CC: 30%

Notes:

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Bird Survey Map 3

Surveyors: AG

Date: 07.05.2023
Start: 05:30
Finish: 10:45

Temp: 14 *C
Wind: 0 BFS
Rain: 0
CC: 5%

Notes:

TO Feather found in southern section of site.

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Bird Survey Map 4

Surveyors: AG

Date: 19.06.2023
Start: 05:00
Finish: 09:30

Temp: 11 - 16 *C
Wind: 0 - 1 BFS
Rain: 0
CC: 5%

Notes:

Heavy rain overnight.

Predated ST shell found innorhtern part of site.

Juv LT, GO, D. R., B.,

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Bird Survey Map 5

Surveyors: AG

Date: 20.07.2023
Start: 05:30
Finish: 09:30

Temp: 13 *C
Wind: 1 BFS
Rain: Light rain for 10 mins
CC: 100%

Notes:

Recently fledged BF, D., R.

TO roosting in tree in southern section of site.

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Bird Survey Map 6

Surveyors: AG

Date: 04.08.2023
Start: 05:45
Finish: 09:30

Temp: 14 *C
Wind: 3 - 1 BFS
Rain: 0
CC: 100%

Notes:

Recently fledged BF and R.

Tits flocking together.

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Appendix 3 – Landscape design for birds

SPECIES	F	SIZE				LOCATION			SOIL MOISTURE	BENEFITS TO WILDLIFE
		T	S	M	L	H	W	Su/Sh		
TREES										
Alder*	D				Y			Su	M	Seed food for birds
Beech*	D			Y	Y	Y		Su	D	Seed food for birds
Birch*	D		Y	Y	Y			Su	D	Seed food for birds
Bird cherry *	D			Y	Y			Su	D	Food for birds, flowers attract insects
Crab apple*	D		Y	Y	Y			Su	D	Food for birds, flowers attract insects
English oak*	D				Y			Su	D	Food for birds, insects and mammals, nesting sites
European larch*	D				Y			Su	M	Seed food for birds
Holly*	E		Y	Y	Y	Y		Su	D	Fruits eaten by birds, food plant of holly blue butterfly
Juniper*	E							Su	D	Shelter and nest sites, fruits eaten by thrushes
Lime*	D				Y	Y		Su	D	Seed food for birds
Rowan*	D			Y	Y			Su	D	Fruits eaten by birds
Scot's pine*	E				Y			Su	D	Seed food for birds
Swedish whitebeam	D		Y	Y	Y			Su	D	Food for birds, flowers attract insects
Wild cherry*	D			Y	Y			Su	D	Food for birds, flowers attract insects
Yew*	E		Y	Y	Y	Y		Su	D	Food for birds, nesting sites
SHRUBS										
Barberry	B	Y	Y	Y	Y	Y		Su	D	Good shelter and nest cover for birds, berries may provide food
Blackthorn*	D			Y	Y	Y		Su	M	Attracts insects, food for birds, nesting sites
Buckthorn*	D			Y	Y	Y		Su/Sh	D	Food plant of brimstone butterfly, fruits eaten by birds
Butterfly bush	E	Y	Y	Y	Y	Y		Su	D	Attracts insects
Californian lilac	E			Y	Y	Y	Y	Su	D	Flowers attractive to various insects
Dogwood*	D			Y	Y	Y		Su	D	Food for birds, winter stem colour
Elder*	D		Y	Y	Y	Y		Su	D	Food for birds
Escallonia	E			Y	Y	Y		Su	M	Flowers attractive to various insects, tolerant of salt - good in coastal areas
Field maple*	D		Y	Y	Y	Y		Su	D	Good source of insect food for birds
Firethorn	E	Y	Y	Y	Y	Y	Y	Su	D	Berries popular with many bird species
Flowering current	D		Y	Y	Y			Su	D	Early flowers attractive to insects
Forsythia	D		Y	Y	Y	Y	Y	Su	D	Early flowers attractive to insects
Garria	E	Y	Y	Y	Y		Y	Su	D	Winter catkins, early cover for nesting birds
Goat willow*	D	Y	Y	Y	Y			Su	D	Catkins attractive to bees, good source of insect food for birds
Gorse*	E			Y	Y	Y		Su	D	Early flowers attractive to insects, good protection for birds
Rhytismatales	E			Y	Y	Y		Su	D	Good cover, tolerant of salt - good in coastal areas
Guelder-rose*	D			Y	Y	Y		Su	D	Food for birds & insects
Hawthorn*	D		Y	Y	Y	Y		Su	D	Flowers attractive to insects, fruits eaten by birds, good shelter and nesting site
Hazel*	D	Y		Y	Y	Y		Su	D	Food for birds, insects and mammals, nesting sites
Laurel-leaved vibumum	E		Y	Y	Y			Su	D	Early flowers good for insects, good cover for birds

Lavender	E	Y	Y	Y	Y	Y		Su	D	Flowers attract many insects, seeds popular with finches
Lilac	D		Y	Y	Y			Su	D	Flowers attractive to insects
Oregon grape	E		Y	Y	Y			Su/Sh	M	Early flowers good for insects
Pheasant berry	E			Y	Y			Su	D	Berries popular with many bird species
Privet*	E		Y	Y	Y	Y		Su	D	Flowers attract butterflies, produces berries
Rose	D	Y	Y	Y	Y	Y	Y	Su	D	Fruits of some varieties attractive to birds
Rosemary	E	Y	Y	Y	Y	Y		Su	D	Flower attract many insects
Shad bush	D		Y	Y				Su	M	Flowers attract insects, early forming berries good for thrushes
Snowberry	D			Y	Y	Y		Su/Sh	D	Flowers attractive to bees, fruits attractive to birds, dense stems provide cover
Spindle*	D		Y	Y	Y			Su	D	Berries eaten by birds, but poisonous to mammals
Tamarix	D			Y	Y	Y		Su	D	Flowers attractive to various insects, tolerant of salt - good in coastal areas
CLIMBERS & RAMBLERS										
Bramble*	D		Y	Y	Y	Y	Y	Su/Sh	D	Food for birds, insects and mammals, nesting sites
Clematis	D	Y	Y	Y	Y			Su	D	Nesting sites
Honeysuckle*	D	Y	Y	Y	Y	Y	Y	Su/Sh	D	Attractive to insects, good nesting site, food for birds
Ivy*	E	Y	Y	Y	Y	Y	Y	Su/Sh	D	Attractive to insects, good nesting site, food for birds
Rose	D	Y	Y	Y	Y	Y	Y	Su	D	Fruits of some varieties attractive to birds
Winter jasmin	E	Y	Y	Y	Y	Y	Y	Su	D	Early flowers attractive to insects
Wisteria	D	Y	Y	Y	Y		Y	Su	D	Attractive to insects, good nesting site

KEY			
*****	Native (NB: some varieties are cultivars or non-native)	**Location**	H = may be used as a hedge plant
F	D = Deciduous		W = may be used as a wall shrub
Foliage type	E = Evergreen		Su = Sunny borders
	B = Both		Sh = Shade tolerant
Size	T = Terraces & balconies		Su/Sh = Grows in partial shade
Suitable for garden sizes	S = Small garden (</= 6m x 4m)	**Soil mositure**	D = Well drained
	M = Medium gardens (</= 12m x 6m)		M = Moist
	L = Large gardens (> 12m x 6m)		W = Wet soil

Appendix 4 – Statutory and planning context

STATUTORY AND PLANNING CONTEXT

Ecological assessments

Ecological assessments play an important part within the planning context; they include an initial assessment which highlights any specific interests of a site. From the initial site assessment, the surveyor assesses the suitability of habitats within the site to support protected species and makes recommendations for further survey works if required. The following paragraphs provide a brief interpretation of the legislative protection that is relevant to the findings of this report.

Habitats

Section 7 of the Environment Act (Wales) places a duty on Welsh Ministers to publish, review and revise lists of types of habitats and species in Wales which they consider are of key significance to sustain and improve biodiversity. The Welsh Ministers must also take all reasonable steps to maintain and enhance the habitats published in these lists, and encourage others to take such steps.

Birds

All wild birds, their nests and young are protected throughout England and Wales by the Wildlife & Countryside Act 1981 (as amended). It is illegal to kill, injure or take any wild bird, or damage or destroy the nest or eggs of breeding birds. The legislation applies to all bird species, common and rare.

In addition to the protection afforded to all wild birds, more vulnerable species listed on Schedule 1 of the Act receive enhanced protection when breeding. Schedule 1 species, including their dependent young, are protected from intentional or reckless disturbance whilst at or near the nest, in addition to the protection afforded the more common species.

The Environment (Wales) Act 2016 offers further protection to the nests of some species that regularly re-use their nests, even when the nests are not in use.

The leading governmental and non-governmental conservation organisations in the UK have reviewed the population status' of 244 UK bird species. "Birds of Conservation Concern 4: the Red List for Birds" is the most recent publication summarising their findings. Three lists, Red, Amber and Green, have been produced based on the most up-to-date evidence available and criteria include conservation status at global and European levels and, within the UK: historical decline, trends in population and range, rarity, localised distribution and international importance. These lists are a valuable resource when considering conservation priorities.

Planning Policy

National planning guidance is issued in the form of Planning Policy Wales (PPW - 2018). The most relevant sections are included in Chapter 6: Distinctive and Natural Places. This chapter details the policies on issues such as the protection of trees, woodlands, species, and designated sites. The document is free and available to view online