

Wintering Bird Survey Report

ELMA 1

Ecology Solutions Ltd

April 2022






**Durham Wildlife Services
Rainton Meadows
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WINTERING BIRD SURVEY REPORT
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1.0 EXECUTIVE SUMMARY

- 1.0.1 Durham Wildlife Services (DWS) was commissioned by Ecology Solutions Limited in January 2022 to undertake wintering bird surveys of the IAMP ONE mitigation area (Ecological and Landscape Mitigation Area 1). The approximate National Grid Reference for the centre of the site is NZ 32963 58977. The surveys are required to assess the avian interest and potential of the site.
- 1.0.2 A number of surveys have already been completed across the site, focusing on the wider area as part of the IAMP developments, by several ecological companies including White Young and Green (WYG) in 2014 and 2015, ARUP in 2016-2017, Dendra in 2017/2018 and DWS in 2018/2019. Additionally, Tetra Tech carried out monitoring of the core survey area during the 2020/21 period. These reports should be read in conjunction with this one. This report focuses on the 2022 wintering bird assemblage of the ELMA 1.
- 1.0.2 The principal objective of the wintering bird survey is to establish the avian interest and identify key areas across the site. The results will be used to determine the conservation status of component species and to derive an overall assessment of the importance of the site for wintering birds.
- 1.0.3 In summary, a total of 46 species have been recorded over the course of the surveys carried out between January 2022 – March 2022. An average of 33.7 species per survey was recorded. In total of 10 BoCC Red listed species (22%), 20 BoCC Amber listed species (43%) species, which gives a combined total of 30 notably listed species (65%). In addition, 15 BoCC Green listed species (33%) and 1 introduced species (2%) have been identified across the site during the surveys. Incidentally, a single male barn owl was observed roosting in the barn at North Moor Farm during a bat risk assessment update.
- 1.0.4 Full conclusions and recommendations can be found in Section 5 of this report**

2.0 INTRODUCTION

2.1 Background

2.1.1 Durham Wildlife Services (DWS) was commissioned by Ecology Solutions Limited in January 2022 to undertake wintering bird surveys of the IAMP ONE mitigation area (Ecological and Landscape Mitigation Area 1). The approximate National Grid Reference for the centre of the site is NZ 32963 58977. The surveys are required to assess the avian interest and potential of the site.

2.1.2 A number of surveys have already been completed across the site, focusing on the wider area as part of the IAMP developments, by several ecological companies including White Young and Green (WYG) in 2014 and 2015, ARUP in 2016-2017, Dendra in 2017/2018 and DWS in 2018/2019. Additionally, Tetra Tech carried out monitoring of the core survey area during the 2020/21 period. These reports should be read in conjunction with this one. This report focuses on the 2022 wintering bird assemblage of the ELMA 1.

2.2 Site Description

2.2.1 The core survey site is a mixture of arable and pasture farmland, with a small woodland to the north, adjacent to the Usworth Burn, with the River Don present to the north-east. Most field boundaries have hedgerows, frequently with large trees. The land adjacent to site also consists of farmland with arable and pasture present. The site is located to the north of the Nissan Car Manufacturing Plant in Washington, Sunderland. (Figure 1, Appendix A).

2.3 Survey Objectives

2.3.1 The principal objective of the wintering bird survey is to establish the avian interest and identify key areas across the site during the non-breeding winter period (September–March); DWS were only commissioned to begin surveys in January 2022 – March 2022. The results will be used to determine the conservation status of component species and to derive an overall assessment of the importance of the site for wintering birds.

2.4 Legislation

2.4.1 The Wildlife and Countryside Act 1981

The Wildlife and Countryside Act 1981 (WCA 1981) (as amended) under Section 1, makes it an offence to intentionally kill, injure or take any wild bird, nest or egg. The possession of any of these is an offence of strict liability. The act also covers special protection for Schedule 1 species. Part 1 of Schedule 1 lists 79 rare, endangered, declining or vulnerable bird species which are protected by special penalties at all times, including the offence of disturbance.

2.4.2 Natural Environment and Rural Communities (NERC) Act (2006)

Section 41 (S41) of this Act (the 'England Biodiversity List') requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

The S41 list replaces the list published under Section 74 of the Countryside and Rights of Way (CRoW) Act 2000.

2.4.3 IUCN Birds of nature Conservation Concern

In addition to statutory protection, some bird species are classified according to their conservation status, such as their inclusion on the Red and Amber lists of Birds of Conservation Concern (BoCC) in the UK (Eaton et al. 2021):

- Red list (high conservation concern) species are those that are Globally Threatened according to IUCN criteria; those whose population has declined rapidly (50% or more) in recent years; and those that have declined historically and not shown a substantial recent recovery.
- Amber list (medium conservation concern) species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately (between 25% and 49%) in recent years; those whose population has declined historically but made a substantial recent

recovery; rare breeders; and those with internationally important or localised populations.

- Green list (low conservation concern) species fulfil none of the above criteria.

2.4.4 **National Planning Policy Framework**

The NPPF outlines government planning policies and how they should be applied within local authorities. The framework places an emphasis on sustainable development, encouraging the re-use of land that has previously been developed over using land that has a higher environmental value and by minimising impacts on biodiversity. The NPPF states that developments should aim to conserve or enhance biodiversity and incorporate biodiversity in and around developments.

2.4.5 **Durham Biodiversity Action Plan (DBAP)**

The DBAP contains action plans for species of particular importance to the biodiversity of the area.

3.0 METHODOLOGY

3.1 Desk Based Study

3.1.1 The Environmental Records Centre North East (ERIC NE) were contacted for records of protected species and sites within 2km of the site. Durham Bird Club were not consulted directly as they do not have capacity to supply ornithological data at this current time; however, ERIC NE are supplying the DBC data that they hold. Additionally, freely available online bird data (eBird, BirdTrack, Twitter etc) was also reviewed for local site records.

3.2 Field Survey

3.2.1 The survey methodology adapted and combined the 'Common Bird Census' (CBC) and 'Winter Farmland Bird Survey' devised by the British Trust for Ornithology (BTO) based on Bibby (2000). This technique records the location and movements of individual birds present within a defined survey area. The surveys were carried out in the autumn and winter period to ensure that both resident wintering birds and migrant wintering birds were recorded.

3.2.2 Surveys were undertaken each month between January 2022 – March 2022 (inclusive). Surveys were largely undertaken in the diurnal period; however, consideration was given for crepuscular and nocturnal species. All surveys were conducted in suitable weather conditions, between the hours of 6:00am and 18:30pm (adjusted accordingly for daylight changes). Days of inclement weather were avoided and there were no significant limitations to the survey. The dates and weather conditions during these surveys are detailed in Table 1.

Table 1: Wintering Bird Survey dates and weather conditions.

Survey Date	Sunrise Time (First light)	Survey Times	Weather Conditions
24/01/2022	08:08 (07:27)	07:45 – 10:59	Light breeze. 40% cloud cover. Bright and clear visibility. Start: 4°C. End: 9°C Dry
15/02/2022	07:05 (06:29)	7:00 – 10:30	Light - Moderate breeze. 60% cloud cover. Clear visibility. Start: 0.5°C. End: 4°C

			Dry – brief sleet shower @ 8am
15/03/2022	06:21 (05:46)	07:30 – 11:30	Light breeze. 60% cloud cover. Clear visibility. Start: 6°C. End: 11°C Dry

3.2.3 A pre-determined transect route was walked throughout the survey area when possible. In addition, a suitable buffer zone (min. 100 metres – max. 1km where visibility allowed) was also surveyed around the survey area boundary.

3.2.4 The surveys were conducted by an experienced ornithological surveyor and assistants on every occasion including:

Sacha Elliott (Barn Owl Licence CL29/00411)

Sacha is an experienced field ornithologist and keen recreational bird watcher, who has been undertaking professional bird surveys since 2009. She is proficient in several recognised methodologies and survey design, including – but not limited to – adapted common bird census/breeding bird survey, wintering/non-breeding bird survey, and species-specific techniques. Sacha currently holds a Schedule 1 licence to survey Barn Owl in England for the purposes of assessing the potential impacts of development. Sacha has produced impact assessment and mitigation design for avifauna across a variety of projects.

Laura Thompson (Field Surveyor)

Laura has been assisting with ornithological surveys since 2017. Experience includes both wintering and breeding bird surveys, as well as undertaking nest checking surveys, all of which have been carried out on a range of sites from small to large. She has previous experience of bird identification from university modules studying Biology, and from personal study. In 2017 Laura assisted with Northumberland Wildlife Trust's Osprey Watch. She can confidently identify several common bird species from visual and calls, including recognising Schedule 1 species.

Daniel Gray (Field Assistant)

Daniel has developed his bird field identification skills having carried out numerous field surveys, both in a voluntary capacity and in professional roles as a field assistant. He has experience working under a range of methodologies including vantage point,

transect surveys (for both winter and breeding birds) and nesting bird checks on projects and sites covering a range of habitats and sizes.

3.3 Valuation Methods

3.3.1 The assessment methodology for this report follows the guidelines developed by the Chartered Institute of Ecology and Environmental Management (CIEEM 2006). Accordingly, this report considers the geographic frame of reference; site designations and features; biodiversity value; large populations or important assemblages of species; potential value, secondary or supporting value; social/community value and economic value.

3.3.2 Table 2: CIEEM Evaluation Criteria

Conservation Value	Examples of Selection Criteria
International	<ul style="list-style-type: none"> • A species which is part of the cited interest of an SPA and which regularly occurs in internationally or nationally important numbers. A species present in internationally important numbers (>1% of international population).
National	<ul style="list-style-type: none"> • A species which is part of the cited interest of a SSSI and which regularly occurs in nationally or regionally important numbers. • A nationally important assemblage of breeding or over-wintering species. • A species present in nationally important numbers (>1% UK population). Rare breeding species.
Regional	<ul style="list-style-type: none"> • Species of principle importance under S41 of the NERC Act, which are not covered above, and which regularly occur in regionally important numbers.

	<ul style="list-style-type: none"> • Species present in regionally important numbers (>1% of regional population). • Sustainable populations of rare or scarce species within a region. • Species on the BoCC Red List and which regularly occurs in regionally important numbers.
County	<ul style="list-style-type: none"> • Species of principle importance under S41 of the NERC Act, which are not covered above, and which regularly occur in county important numbers. • Species present in county important numbers (>1% of county population). Sustainable populations of rare or scarce species within a county or listed in a county BAP. • A site designated for its county important assemblage of birds (e.g. a SINC Site). • Species on the BoCC Red List and which regularly occur in county important numbers.
District	<ul style="list-style-type: none"> • Species of principle importance under S41 of the NERC Act, which are not covered above, and are rare in the locality or in the relevant Natural Area profile. • Species present in numbers just short of county importance. • Sustainable populations of rare or scarce species within the locality. • A site whose designation falls just short for inclusion for its county

	<p>important assemblage of birds (e.g. a SINC Site).</p> <ul style="list-style-type: none"> • Other species on the BoCC Red List and which are considered to regularly occur in district important numbers.
Local	<ul style="list-style-type: none"> • Other species of conservation interest (e.g. all other species of principle importance under S41 of the NERC Act and on the BoCC Red and Amber lists which are not covered above) regularly occurring in locally sustainable populations.
Site	<ul style="list-style-type: none"> • All other BoCC Green-listed common and widespread species.

3.3.3 To aid with assessment of ornithological importance, the methods developed by Fuller (1980) are used. The methodology uses the number of species recorded (species richness) during the surveys to assign importance to a site.

Table 3: Valuation categories based on methods developed by Fuller (1980)

Geographical Level	No. of species
National	85+
Regional	84-70
County	69-50
District (Local in Fuller (1980) methodology)	49-25
Local/Parish	<25

3.3.4 Fuller described an assemblage of 25-49 species as being of 'Local' value, and due to its position immediately below 'County' level, this report has adapted this level to 'District' to be consistent with CIEEM guidelines. Consequently, an assemblage comprising of fewer than 25 species is assumed to be of importance at the Local/Parish level or lower.

3.3.5 In addition, survey findings were compared against their respective entries in The Birds of Durham (Bowey and Newsome, 2012), to provide an assessment of the individual

species distribution within the county. As bird numbers fluctuate, a level of professional judgement, based on current county bird trends, was made when analysing survey findings against this publication. The status of each species is categorised under one of seven general headings:

- Abundant: more than 10,000 per year.
- Very common: 1,001 to 10,000 per year.
- Common: 101 to 1,000 per year.
- Uncommon: 10 to 100 per year.
- Scarce: less than 10 per year.
- Rare: between 5-25 in total.
- Extremely rare: less than 5 occurrences in total.

4.0 SURVEY RESULTS

4.1 Desk Based Study

4.1.1 ERIC supplied over 22000 bird records (relating to c.185 species) from DBC held data. Most records related to common and widespread species within the wider area, primarily Washington Wetland Centre; however, several of the records relate to Schedule 1 bird species that are associated with the immediate area or adjacent to the site:

- Goshawk (records relating to West Pastures)
- Kingfisher (records relating to West Pastures)
- Garganey (off site record)
- Scaup (off site record)
- Bittern (record relating to injured bird as Testos)
- Lapland bunting (off site record)
- Ruff (off site record)
- Temminck's stint (off site record)
- Little ringed plover (records relating to West Pastures)
- Dotterel (records relating to West Pastures)
- Black tern (off site record)
- Marsh harrier (records relating to West Pastures and Follingsby Lane)
- Hen harrier (records relating to West Pastures, Follingsby Lane, and Seven Houses)
- Long-tailed duck (off site record)
- Quail (records relating to West Pastures)
- Bewick's swan (off site record)
- Whooper swan (off site record)
- Merlin (records relating to West Pastures)
- Peregrine (records relating to West Pastures and Follingsby Lane)
- Hobby (records relating to Testos)
- Brambling (off site records)
- Red-throated diver (off site records)
- Little gull (off site records)
- Mediterranean gull (off site records)
- Black-tailed godwit (off site records)
- Common crossbill (records relating to Follingsby Lane)
- Bee-eater (off site record)
- Red kite (records relating to West Pastures)
- Whimbrel (records relating to Downhill Lane)
- Honey-buzzard (records relating to Follingsby Lane)
- Spoonbill (off site record)
- Snow bunting (records relating to West Pastures)
- Avocet (off site record)
- Firecrest (off site record)
- Wood sandpiper (records relating to West Pastures)
- Greenshank (records relating to West Pastures)
- Green sandpiper (records relating to Usworth)
- Redwing (records relating to West Pastures and Follingsby Lane)
- Fieldfare (records relating to West Pastures, Follingsby Lane, Usworth, and Severn Houses)
- Barn owl (records relating to West Pastures and Nissan)

4.1.2 Records from eBird online recording relating to the survey area were also reviewed.

This revealed 29 species recorded between September 2021 – January 2022:

- Lesser redpoll
- Little owl
- Northern shoveler
- Goldcrest
- Common redshank
- Eurasian siskin
- Eurasian coot
- Fieldfare
- Redwing
- Eurasian tree sparrow
- Western marsh harrier
- Eurasian green woodpecker
- Long-tailed tit
- Jack snipe
- Whooper swan
- Carrion crow
- Pink-footed goose
- Coal tit
- House sparrow
- Peregrine falcon
- Mistle thrush
- Black-tailed godwit
- European stonechat
- Eurasian teal
- Willow tit
- Garden warbler
- European golden plover
- Common snipe
- Little egret

4.2 Field Survey

4.2.1 In summary, a total of 46 species have been recorded over the course of the surveys carried out between January 2022 – March 2022. An average of 33.7 species per was recorded. The full details of the findings can be found within Table 3. A summary of each survey has been provided below:

4.2.2 January 2022

In summary, a combined total of 377 individuals relating to 35 species of bird was recorded over the course of the survey either on site or directly adjacent to the core survey area. In total, 16 amber-listed species were recorded, and 5 red-listed species were observed. Notable observations include relatively large flocks of curlew (c.48 birds) foraging in adjacent arable fields to the north of the core survey boundary. As recorded in previous years, large mixed finch flocks remain a notable wintering feature for the area. In addition, small flocks of migratory thrush (redwing, blackbird, fieldfare) were observed foraging in fields and field boundary features to the west of the site.

Small coveys of grey partridge were recorded with a total of 17 birds across two groups (9 birds in one group and 8 in the second group).

4.2.3 February 2022

In summary, a combined total of 409 individuals relating to 28 species of bird were recorded over the course of the survey either on site or directly adjacent to the core survey area. In total, 9 amber-listed species were recorded, and 9 red-listed species were observed. Overall, the survey was relatively quiet, although some large flocks of curlew (20 birds) and lapwing (60 birds) were recorded within the buffer and using one of the mitigation ponds. Small numbers of teal and shoveler were also recorded on the ponds. Several mixed finch flocks were observed during the survey, but most small passerines were seen individually or in pairs and no mixed tit flocks were noted on this occasion. Skylark were recorded singing with some display flights, with one skylark present in almost every field. Birds were mostly recorded in hedgerows, but woodpigeon, carrion crow, and herring gulls were mostly commonly recorded flying over site.

A visit to north moor farm 2nd February recorded a male barn owl roosting within the barn.

4.2.4 March 2022

In summary, a combined total of 532 individuals relating to 38 species of bird were recorded over the course of the survey, either on site or directly adjacent to the core survey area. In total, 15 amber-listed species were recorded, and 9 red-listed species were observed. Notable records relate to the relatively large fall of migratory birds with fieldfare, redwing, meadow pipit, and starling observed together in large foraging (highly mobile) flocks. As per the previous survey, skylark presence was widespread with near constant display flights noted. Many common passerines were noted to be occupying typical breeding territories with widespread song and disputes observed.

4.2.6 Table 3: Survey Results January 2022 – March 2022

Common Name (County Status based on Bowey & Newsome, 2012 & latest Annual Report)	Scientific Name	Status	Jan-22	Feb-22	Mar-22	Total
Blackbird (An abundant resident, passage migrant and winter visitor)	<i>Turdus merula</i>	Green	21	17	20	58
Blue Tit (An abundant and widespread breeding resident)	<i>Cyanistes caeruleus</i>	Green	17	17	21	55
Buzzard (An increasingly common breeder and occasional passage migrant)	<i>Buteo buteo</i>	Green	0	1	0	1
Carrion Crow (An abundant and widespread resident)	<i>Corvus corone</i>	Green	6	38	6	50
Chaffinch (An abundant resident, and common winter visitor and passage migrant)	<i>Fringilla coelebs</i>	Green	8	6	9	23
Collared Dove (A very common resident, mainly found in suburban areas)	<i>Streptopelia decaocto</i>	Green	2	0	0	2
Goldfinch (A very common and well distributed resident and passage migrant)	<i>Carduelis carduelis</i>	Green	63	23	28	114
Great Tit (An abundant and widespread breeding resident)	<i>Parus major</i>	Green	5	2	2	9
Grey Heron (A common resident)	<i>Ardea cinerea</i>	Green	1	0	1	2
Jackdaw (An abundant and widespread resident)	<i>Corvus monedula</i>	Green	22	0	3	25
Long-tailed Tit (A very common breeding resident)	<i>Aegithalos caudatus</i>	Green	11	0	2	13
Magpie (A very common resident)	<i>Pica pica</i>	Green	4	10	8	22
Pied Wagtail (A very common resident, passage migrant and winter visitor)	<i>Motacilla alba</i>	Green	2	0	4	6
Robin (An abundant resident and passage migrant)	<i>Erithacus rubecula</i>	Green	4	6	9	19
Stonechat (An uncommon winter visitor and passage migrant and scarce breeding species)	<i>Saxicola rubicola</i>	Green	0	0	2	2
Black-headed Gull (An abundant winter visitor and passage migrant; also locally common breeder)	<i>Chroicocephalus ridibundus</i>	Amber	1	0	2	3
Bullfinch (A common resident species and uncommon passage migrant)	<i>Pyrrhula pyrrhula</i>	Amber NERC	0	2	0	2
Common Gull (An abundant passage and winter visitor, and occasional scarce breeder)	<i>Larus canus</i>	Amber	11	0	0	11
Dunnock (An abundant resident and passage migrant)	<i>Prunella modularis</i>	Amber NERC	2	2	3	7
Greylag Goose (A very common and widespread resident breeder and winter visitor)	<i>Anser anser</i>	Amber	4	0	1	5
Kestrel (A common breeder and passage visitor)	<i>Falco tinnunculus</i>	Amber LBAP	2	2	2	6

Mallard (A very common resident and winter visitor)	<i>Anas platyrhynchos</i>	Amber	0	0	4	4
Meadow Pipit (An abundant resident and passage migrant)	<i>Anthus pratensis</i>	Amber	1	0	15	16
Moorhen (A very common resident)	<i>Gallinula chloropus</i>	Amber	0	0	3	3
Redshank (A very common winter visitor and passage migrant, and widespread upland breeder)	<i>Tringa totanus</i>	Amber LBAP	1	0	0	1
Redwing (A very common passage migrant and winter visitor)	<i>Turdus iliacus</i>	Amber Sch1	11	0	8	19
Reed Bunting (A common but locally resident and a common migrant and winter visitor)	<i>Emberiza schoeniclus</i>	Amber NERC LBAP	12	1	6	19
Rook (An abundant and widespread resident)	<i>Corvus frugilegus</i>	Amber	2	5	0	7
Shelduck (A common resident and winter visitor)	<i>Tadorna tadorna</i>	Amber LBAP	0	0	2	2
Shoveler (A locally common passage and winter visitor and scare breeder)	<i>Anas clypeata</i>	Amber	1	2	0	3
Song Thrush (A very common resident, passage migrant and winter visitor)	<i>Turdus philomelos</i>	Amber NERC LBAP	1	0	1	2
Stock Dove (A very common resident)	<i>Columba oenas</i>	Amber	4	0	2	6
Teal (An uncommon breeder, but abundant passage and winter visitor)	<i>Anas crecca</i>	Amber	6	4	6	16
Woodpigeon (An abundant resident and winter visitor)	<i>Columba palumbus</i>	Amber	5	60	37	102
Wren (An abundant resident and passage migrant)	<i>Troglodytes troglodytes</i>	Amber	5	1	16	22
Curlew (A very common resident, passage and winter visitor)	<i>Numenius arquata</i>	Red NERC LBAP	48	23	10	81
Fieldfare (A very common passage migrant and winter visitor)	<i>Turdus pilaris</i>	Red Sch1	34	52	180	266
Grey Partridge (A common resident, although still declining in some area)	<i>Perdix perdix</i>	Red NERC LBAP	17	0	2	19
Herring Gull (An abundant passage and winter visitor, and a common coastal breeder)	<i>Larus argentatus</i>	Red NERC	1	6	3	10
Lapwing (An abundant passage and winter visitor and very common breeder)	<i>Vanellus vanellus</i>	Red NERC	0	60	0	60

		LBAP				
Linnet (A very common and well distributed resident and passage migrant)	<i>Linaria cannabina</i>	Red NERC LBAP	41	33	15	89
Skylark (An abundant resident and passage migrant, with local declines in recent years)	<i>Alauda arvensis</i>	Red NERC LBAP	0	6	17	23
Starling (An abundant resident and winter visitor)	<i>Sturnus vulgaris</i>	Red NERC LBAP	0	20	71	91
Tree sparrow (A common but sparsely distributed resident)	<i>Passer montanus</i>	Red NERC LBAP	0	2	6	8
Yellowhammer (A common and widespread resident)	<i>Emberiza citrinella</i>	Red NERC LBAP	0	3	8	3
Pheasant (A very common resident, supplemented by extensive release programmes)	<i>Phasianus colchicus</i>	No status	1	5	5	11

5.0 DISCUSSION

5.1 Constraints

5.1.1 The surveys were undertaken at the backend of the accepted winter survey period, and as such, survey data between September – December 2021 is absent. Given the experience of the survey team, and the time spent covering the site, the data collected is thought to provide an accurate representation of the resident species present across the site; however, given the “snapshot” nature of the survey visits, it is possible that more species may use the site than those that have been recorded during the surveys.

5.2 Wintering Bird Species

5.2.1 In summary, a total of 46 species have been recorded over the course of the surveys carried out between January 2022 – March 2022. An average of 33.7 species per survey was recorded. The full details of the findings can be found within Table 3. Species recorded on site are typical of the habitats present and the locality with no unusual records noted.

5.2.2 Whilst not recorded during the designated wintering bird surveys, barn owl was recorded incidentally during a separate visit to update the bat risk assessment at North Moor Farm. A single male bird was observed roosting within the barn on site.

5.3 Site Evaluation

5.3.1 A total of 10 BoCC Red listed species (22%), 20 BoCC Amber listed species (43%) species, which gives a combined total of 30 notably listed species (65%). In addition, 15 BoCC Green listed species (33%) and 1 introduced species (2%) have been identified across the site during the surveys (Graph 1).

5.3.2 Direct comparisons to historic survey data are difficult to achieve in this instance as only data for three survey visits was collected in 2022. Additionally, the BoCC species list was updated in December 2021, with several bird species moved to higher/lower levels of conservation concern. However, Tetra Tech recorded 54 species between August 2020 – February 2021, including 3 Sch1 species, 12 Red listed species, 13 Amber listed species, and 12 NERC species.

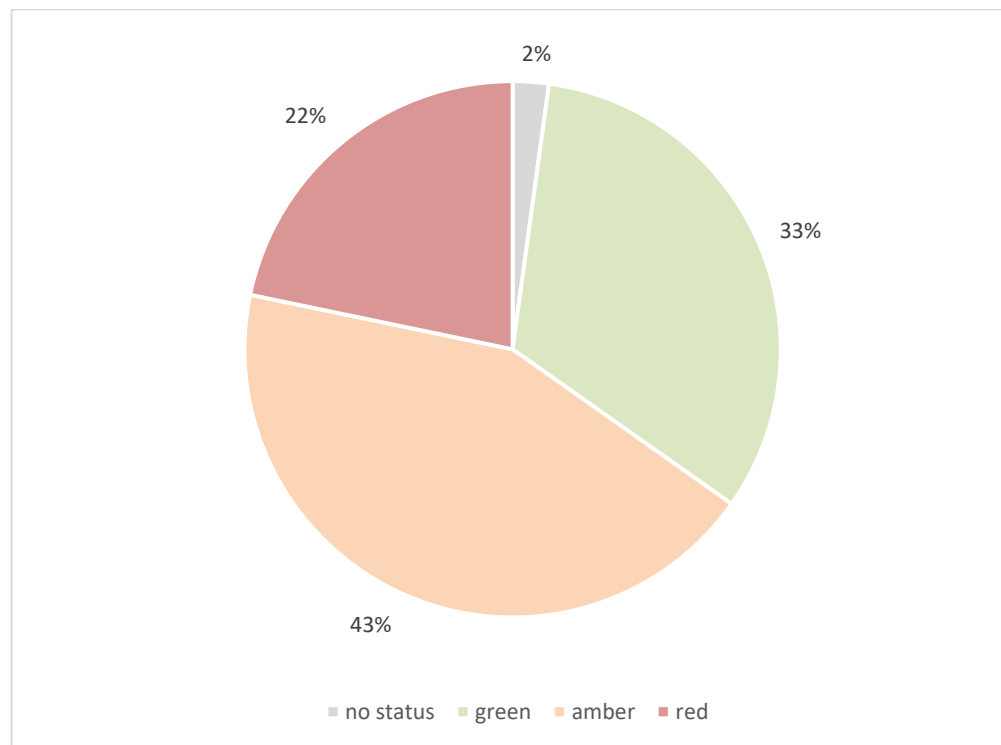
5.3.3 Overall, the species composition for the site closely resembles that collected by Tetra Tech during the 2020/21 period. Where differences occur, these can be accounted for by the timing of the surveys, the “snapshot” nature of single monthly survey visits, and

the establishment of the wetland habitats. Several other factors could account for the variation in numbers and assembles, including, local weather and/or continental weather impacts on migratory species, annual population fluctuations, habitat changes/on-going development, and/or opportunistic site use by individual birds.

5.3.4 Of the identified species, several are listed on the Local Biodiversity Action Plan for Durham under the following action plan categories:

- Farmland Birds
- Urban and Garden Wildlife
- Woodland and Scrub
- Lowland Fen
- Coastal Birds
- Upland Birds

- Barn Owl



Graph 1: Visual representation of the percentage of Green, Amber, and Red listed species recorded across all surveys.

5.3.5 The following Schedule 1 species, which are afforded higher protection during the breeding period, have been identified during the surveys to date: barn owl, redwing, and fieldfare. Both redwing and fieldfare are mainly only potential breeding species in the Scottish Highlands (rare) with only extremely rare records associated with England.

Barn owl are known to breed within the area and hold winter home ranges across the site.

- 5.3.6 The surveys highlighted the importance of the boundary, hedgerow, and treeline features on site – these features held the largest assemblage of birds overall. The open fields also provide foraging and roosting opportunities for several species of conservation concern and were heavily utilised by foraging migratory thrushes and mixed finch flocks prior to passage movement and dispersal. It is likely that site supports most of the identified farmland bird assemblage year-round.
- 5.3.7 It was evident that the establishing wetland habitats are attracting a range of new species to the area with species including moorhen, redshank, shelduck, shoveler, and teal utilising the core survey site and the immediate adjacent area.
- 5.3.8 Based on the 2022 survey findings and using the adapted CIEEM and Fuller (1980) criteria, the site is considered to be of at least **District** level importance for its winter avian assemblage (see Section 3.3). Additional weighting is added due to the number of nationally declining red and amber listed species recorded using the site. It is likely that the site would be valued as having at least County level importance if surveys had started prior to January 2022 or a greater number of survey visits had occurred in 2022.

5.4 Recommendations and mitigation

- 5.4.1 The 2022 wintering bird survey data revealed that the majority of the identified species are either red or amber listed birds of conservation concern; therefore, protecting these populations from decline is of significant conservation importance, both locally and nationally. Mitigation should be influenced by the retention of the following key species within the local area and on site where possible:

Amber Listed

- Black-headed gull
- Bullfinch
- Common gull
- Dunnock
- Greylag Goose
- Kestrel
- Mallard
- Meadow pipit
- Moorhen

Red Listed

- Curlew
- Fieldfare
- Grey Partridge
- Herring Gull
- Linnet
- Lapwing
- Skylark
- Starling
- Tree sparrow

-
- Redshank
 - Redwing
 - Reed bunting
 - Rook
 - Shelduck
 - Shoveler
 - Song thrush
 - Stock dove
 - Teal
 - Wood pigeon
 - Wren
- Yellowhammer
- Schedule 1
- Barn owl
 - Redwing
 - Fieldfare

5.4.2 Site plans should utilise the mitigation hierarchy and make effort to preserve the species richness and assemblages identified through the survey effort, as well as identify areas for biodiversity net gain.

6.0 REFERENCES

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APPENDIX A

Figures

APPENDIX B
Report Conditions

Durham Wildlife Services

REPORT CONDITIONS ELMA 1 – Wintering Bird Surveys

This report is produced solely for the benefit of Ecology Solutions Limited and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to Durham Wildlife Services. In time improved practices, fresh information or amended legislation may necessitate a re-assessment. Opinions and information provided in this report are on the basis of Durham Wildlife Services using due skill and care in the preparation of the report.

This report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary, and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times.

This report is limited to those aspects reported on, within the scope and limits agreed with the client under our appointment. It is necessarily restricted, and no liability is accepted for any other aspect. It is based on the information sources indicated in the report. Some of the opinions are based on unconfirmed data and information and are presented as the best obtained within the scope for this report.

Reliance has been placed on the documents and information supplied to Durham Wildlife Services by others but no independent verification of these has been made and no warranty is given on them. No liability is accepted, or warranty given in relation to the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report.

Whilst skill and care have been used, no investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions.

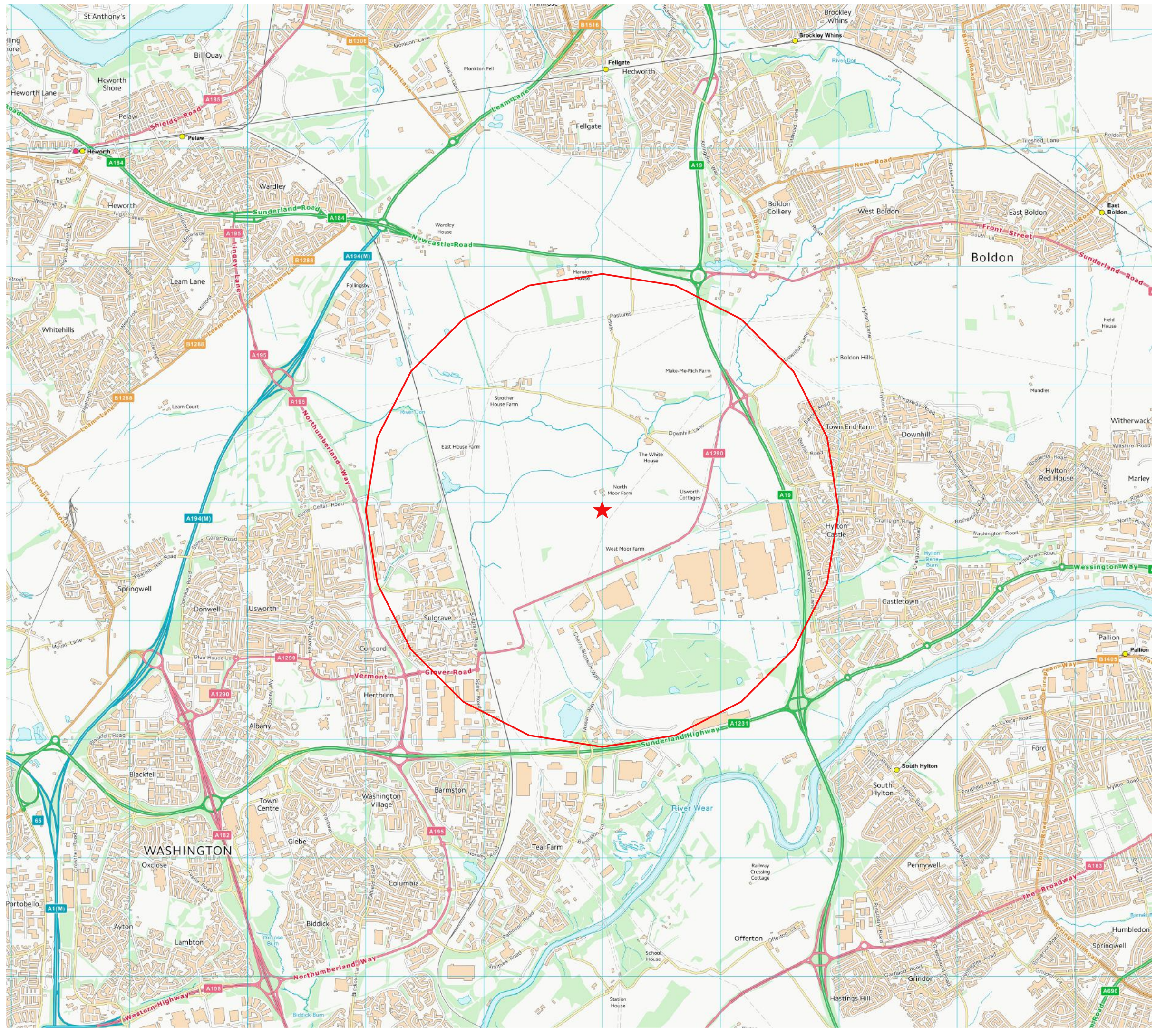
Although care is taken to select monitoring and survey periods that are typical of the environmental conditions being measured, within the overall reporting programme constraints, measured conditions may not be fully representative of the actual conditions. Any predictive or modelling work, undertaken as part of the commission will be subject to limitations including the representativeness of data used by the model and the assumptions inherent within the approach used. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions.

The potential influence of our assessment and report on other aspects of any development or future planning requires evaluation by other involved parties.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design

and specifications and the quality of workmanship and compliance with the specifications on site during construction. Durham Wildlife Services accept no liability for issues with performance arising from such factors

February 2008



Legend

- ★ Site Location
- 2km buffer

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Rainton Meadows
 Chilton Moor
 Houghton-le-Spring
 Tyne and Wear
 DH4 6PU

info@dwsecology.co.uk
 www.dwsecology.co.uk

Project	ELMA 1 Wintering Bird Survey
Title	Location Plan
Client	Ecology Solutions Limited
Date	18th April 2022
Ref	Figure 1



Legend

 Site Boundary

Contains Ordnance Survey data and Google Earth © Crown copyright and database right 2022



Rainton Meadows
Chilton Moor
Houghton-le-Spring
Tyne and Wear
DH4 6PU

info@dwsecology.co.uk
www.dwsecology.co.uk

Project	ELMA 1 Wintering Bird Survey
Title	Aerial Habitat Plan
Client	Ecology Solutions Limited
Date	18th April 2022
Ref	Figure 2



Legend

	Site Boundary
	BoCC Red List Species
	BoCC Amber List Species
	BoCC Green List Species
	Introduced/Non-native Species

Additional Information:
 Letter codes within each point refer to the corresponding BTO reference code and are coloured according to their BoCC Status.

Where more than one bird is observed then the size of the flock is indicated in red text alongside the record.

BTO Code	Common Name	BTO Code	Common Name
B.	Blackbird	MG	Magpie
BH	Black-headed Gull	MP	Meadow Pipit
BT	Blue Tit	P.	Grey Partridge
C.	Carrion Crow	PH	Pheasant
CD	Collared Dove	PW	Pied Wagtail
CH	Chaffinch	R.	Robin
CM	Common Gull	RB	Reed Bunting
CU	Curlew	RE	Redwing
D.	Duncock	RK	Redshank
FF	Fieldfare	RO	Rook
GJ	Greylag Goose	SD	Stock Dove
GO	Goldfinch	ST	Song Thrush
GT	Great Tit	SV	Shoveler
H.	Grey Heron	T.	Teal
HG	Herring Gull	WP	Woodpigeon
JD	Jackdaw	WR	Wren
K.	Kestrel		
LI	Linnet		
LT	Long-tailed Tit		

Survey Info:

Date - 24/01/2022
 Time - 07:45 - 11:00
 Weather - 6.5°C, 40% cloud, dry, clear, light breeze.



Rainton Meadows, Chilton Moor,
 Houghten-le-Spring,
 Tyne and Wear, DH4 6PU
 Tel: 01388488885

Project	IAMP - ELMA 1
Title	Wintering Bird Survey - January 2022
Client	Ecology Solutions Limited
Date	30/03/2022
Ref	Figure 3a



Legend

	Site Boundary
	BoCC Red List Species
	BoCC Amber List Species
	BoCC Green List Species
	Introduced/Non-native Species

Additional Information:
 Letter codes within each point refer to the corresponding BTO reference code and are coloured according to their BoCC Status.

Where more than one bird is observed then the size of the flock is indicated in red text alongside the record.

BTO Code	Common Name	BTO Code	Common Name
B.	Blackbird	RO	Rook
BF	Bullfinch	S.	Skylark
BT	Blue Tit	SG	Starling
BZ	Buzzard	SV	Shoveler
C.	Carrion Crow	T.	Teal
CH	Chaffinch	TS	Tree Sparrow
CU	Curlew	WP	Woodpigeon
D.	Dunnock	WR	Wren
FF	Fieldfare	Y.	Yellowhammer
GO	Goldfinch		
GT	Great Tit		
HG	Herring Gull		
K.	Kestrel		
L.	Lapwing		
LI	Linnet		
MG	Magpie		
PH	Pheasant		
R.	Robin		
RB	Reed Bunting		

Survey Info:
 Date - 15/02/2022
 Time - 07:00 - 10:30
 Weather - 2°C, 60% cloud, dry, clear, moderate breeze.



Rainton Meadows, Chilton Moor,
 Houghten-le-Spring,
 Tyne and Wear, DH4 6PU
 Tel: 01388488885

Project	IAMP - ELMA 1
Title	Wintering Bird Survey - February 2022
Client	Ecology Solutions Limited
Date	30/03/2022
Ref	Figure 3b



Legend

	Site Boundary
	BoCC Red List Species
	BoCC Amber List Species
	BoCC Green List Species
	Introduced/Non-native Species

Additional Information:
 Letter codes within each point refer to the corresponding BTO reference code and are coloured according to their BoCC Status.

Where more than one bird is observed then the size of the flock is indicated in red text alongside the record.

BTO Code	Common Name	BTO Code	Common Name
B.	Blackbird	RO	Rook
BF	Bullfinch	S.	Skylark
BT	Blue Tit	SG	Starling
BZ	Buzzard	SV	Shoveler
C.	Carrion Crow	T.	Teal
CH	Chaffinch	TS	Tree Sparrow
CU	Curlew	WP	Woodpigeon
D.	Dunnock	WR	Wren
FF	Fieldfare	Y.	Yellowhammer
GO	Goldfinch		
GT	Great Tit		
HG	Herring Gull		
K.	Kestrel		
L.	Lapwing		
LI	Linnet		
MG	Magpie		
PH	Pheasant		
R.	Robin		
RB	Reed Bunting		

Survey Info:

Date - 15/03/2022
 Time - 07:30 - 11:30
 Weather - 8.5°C, 60% cloud, dry, clear, light breeze.



Rainton Meadows, Chilton Moor,
 Houghton-le-Spring,
 Tyne and Wear, DH4 6PU
 Tel: 01388488885

Project	IAMP - ELMA 1
Title	Wintering Bird Survey - March 2022
Client	Ecology Solutions Limited
Date	30/03/2022
Ref	Figure 3c