



## **Cottam Parkway**

### **Wintering Bird Survey Report**

**B2327FEA/WBS | 2**

**04/09/2020**

**Lancashire County Council**



## Cottam Parkway

Project No: B2327FEA  
 Document Title: Wintering Bird Survey Report  
 Document No.: B2327FEA/WBS  
 Revision: 2  
 Document Status: Final  
 Date: 04/09/2020  
 Client Name: Lancashire County Council  
 Project Manager: Pippa Hamshaw  
 Author: Stuart Macpherson  
 File Name: B2327FEA WBS Report Rev 2.

5 First Street,  
 Manchester  
 M15 4GU

Tel: +44 (0)161 235 6000

© Copyright 2020 Jacobs U.K. Limited. The concepts and information contained in this document are the property of Jacobs. Use or copying of this document in whole or in part without the written permission of Jacobs constitutes an infringement of copyright.

Limitation: This document has been prepared on behalf of, and for the exclusive use of Jacobs' client, and is subject to, and issued in accordance with, the provisions of the contract between Jacobs and the client. Jacobs accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this document by any third party.

## Document history and status

Revision	Date	Description	Author	Checked	Reviewed	Approved
0	30/04/2020	Wintering Bird Survey Report (Draft for client information / comments)	Stuart Macpherson	Patrick Leatham	Kris Long	Pippa Hamshaw
1	19/06/2020	Includes addressed LCC comments and inclusion of data search information	Stuart Macpherson	Kris Long	Kris Long	Pippa Hamshaw
2	04/09/2020	Corrections to Statutory and Non-statutory Designated Sites	Stuart Macpherson	Kris Long	Kris Long	Pippa Hamshaw

## Contents

<b>Executive Summary .....</b>	<b>iv</b>
<b>1. Introduction.....</b>	<b>1</b>
1.1 Background .....	1
1.2 Survey Objectives.....	1
1.3 Legislative, Planning Policy and Biodiversity Framework Background .....	1
1.3.1 Legislation .....	1
1.3.2 Biodiversity Framework .....	2
1.3.3 Conservation Status .....	2
<b>2. Methodology.....</b>	<b>3</b>
2.1 Desk Study.....	3
2.1.1 Statutory and Non-Statutory Designated Sites .....	3
2.1.2 Non-statutory Designated Sites.....	3
2.1.3 LERN Bird Species Data .....	3
2.1.4 Preston Western Distributor / East West Link Road Bird Species Data .....	3
2.1.5 Field Survey Transect Design .....	3
2.2 Field Survey.....	3
2.2.1 Survey Methodology.....	4
2.3 Evaluation .....	4
2.4 Limitations.....	5
<b>3. Results .....</b>	<b>7</b>
3.1 Desk Study.....	7
3.1.1 Statutory Designated Sites.....	7
3.1.2 Non-statutory Designated Sites.....	9
3.1.3 LERN Bird Species Data .....	9
3.1.4 PWD/EWLR Bird Species Data .....	9
3.2 Field Survey Results .....	10
3.2.1 Species of Conservation Concern .....	10
<b>4. Evaluation .....</b>	<b>16</b>
4.1 Notable Recordings.....	16
4.1.1 Qualifying species of the Ribble and Alt Estuaries SPA.....	17
4.1.2 Qualifying species of the Ribble and Alt Estuaries Ramsar site.....	18
4.2 Overall Evaluation.....	19
<b>5. References .....</b>	<b>21</b>

### Appendix A. Figures

### Appendix B. Legislation, Planning Policy and Biodiversity Background

### Appendix C. Jacobs Field Survey Metadata

### Appendix D. BTO Bird Species Codes

**Appendix E. Ribble and Alt Estuaries Special Protection Area (SPA) Qualifying Species Information**

**Appendix F. Ribble and Alt Estuary Ramsar Qualifying Species Information**

**Appendix G. Ribble Estuary Site of Special Scientific Interest (SSSI) Information**

**Appendix H. Newton Marsh Site of Special Scientific Interest (SSSI) Information**

**Appendix I. Jacobs Wintering Bird Survey Results Table – 2019/2020 Surveys**

**Appendix J. Population Status of Wintering Bird Species of Conservation Concern in Lancashire**

## Executive Summary

Jacobs UK Ltd (Jacobs) was commissioned by Lancashire County Council (LCC) to undertake a range of ecological surveys to inform the Cottam Parkway Railway Station scheme (hereafter referred to as the 'scheme'). The scheme will serve the North West Preston Strategic Housing Location. It will comprise a new road to the proposed railway station connecting from Cottam Link Road with a bridge over the Lancaster Canal and a car park to serve the railway station.

As part of the ecological support to inform the scheme, Jacobs have completed a wintering bird survey. The primary purpose of the survey was to establish an ecological baseline for wintering birds to inform an Environmental Impact Assessment (EIA) for the scheme. This includes providing sufficient information to inform scheme design options, an assessment of potential impacts on wintering birds to develop appropriate mitigation requirements and opportunities for enhancement where possible. This will be presented for planning within an Environmental Statement (ES) which will be submitted for planning consideration in the summer of 2021.

A third-party, desk study data request for birds and non-statutory designated sites was undertaken and reviewed for this report. A request was made to Lancashire Environmental Records Network (LERN) in March 2020. For both breeding and wintering bird species, a total of 668 records of 44 bird species within 1km of the site area and 500m buffer area (provided by LCC), were returned. Of these, 626 records for 38 species were categorised as being either a wintering, passage, migrant or vagrant species. No non-statutory designated sites where wintering birds were listed as a notable / qualifying feature were identified within 1km of the 500m buffer area to the site. A search for statutory designated sites relevant to birds, particularly wintering birds revealed the presence of eight statutory site designations within 5km of the 500m buffer area to the site. Five sites have been designated wholly or partly due to the bird assemblages they support, these were; the Ribble and Alt Estuaries Special Protection Area (SPA), Ribble and Alt Estuaries Ramsar site, Ribble Estuary Site of Special Scientific Interest (SSSI), Newton Marsh SSSI and Ribble Estuary National Nature Reserve (NNR). Additionally, a review of the Preston Western Distributor / East West Link Road (PWD / EWLR) field survey records for wintering bird species, as summarised in the Environmental Statement produced by Jacobs in 2017, was also undertaken. The PWD / EWLR scheme is located adjacent to and within the Cottam Parkway wintering bird field survey area. A total of 76 wintering bird species were recorded during field surveys within the PWD / EWLR survey area between October 2014 and March 2015. Notably relatively large numbers of redwing (*Turdus iliacus*), starling (*Sturnus vulgaris*), mallard (*Anas platyrhynchos*), black-headed gull (*Chroicocephalus ridibundus*) and lesser black-backed gull (*Larus fuscus*) were recorded.

All field surveys were carried out with reference to current good practice guidance: British Trust for Ornithology (BTO) Wintering Farmland Bird Survey methodology and generic wintering bird monitoring methods, as detailed in Bird Monitoring Methods (Gilbert *et al.*, 1998). Field surveys were conducted over six, monthly visits between and including October 2019 and March 2020. Surveyors walked a transect route in areas of suitable wintering bird habitat e.g. open farmland, hedgerows, woodland and waterbodies, within and up to approximately 500m from the site area (i.e. the survey area).

During the field surveys a total of 63 bird species were recorded within the survey area including: three qualifying species for the Ribble and Alt Estuaries SPA; three qualifying species for the Ribble and Alt Estuaries Ramsar site; six qualifying species for the Ribble Estuary SSSI; four qualifying species for Newton Marsh SSSI; 10 species of principal importance (Section 41 of the Natural Environment and Rural Communities Act, 2006); six Lancashire Biodiversity Action Plan species; 11 Red, and 20 Amber listed species as included in the Birds of Conservation Concern 4, 2015.

The majority of bird species are considered to be using the survey area on an occasional and/or transitory basis. Overall, the numbers of birds recorded for each species were not considered to represent a significant proportion of the UK, SPA, Ramsar site, the two SSSIs, the NNR or county populations. The exceptions are; redwing and fieldfare (*Turdus pilaris*), where 5.33% and 1.09% of Lancashire's wintering population was recorded within the survey area. Additionally, the numbers of teal (*Anas crecca*) recorded accounted for 1.02% of Lancashire's wintering population, 1.33% of the SPA population (7,641 individuals) and 1.99% of the Ramsar population (5,107 individuals). Bird species recorded within the survey area are considered to be a typical assemblage for the county given the habitats present. Wintering bird populations within the survey area are assessed as being of **County Importance**.

A robust assessment of the potential impacts on wintering birds associated with the scheme will be detailed within the Ecology Chapter of an ES, along with any prescribed mitigation, compensation measures, opportunities for enhancement, requirements for pre and / or post construction monitoring and an assessment of residual impacts (where appropriate).

# 1. Introduction

## 1.1 Background

Jacobs UK Ltd (Jacobs) was commissioned by Lancashire County Council (LCC) to provide ecological services to inform the proposed Cottam Parkway Railway Station scheme (hereafter referred to as the 'scheme').

The scheme comprises (but not exhaustively): a road connecting to Cottam Link Road at the Sidgreaves junction roundabout; a bridge over the Lancaster Canal connecting to the railway station; station platforms; buildings and associated structures; a footbridge over the railway; a 250 / 500 space car park; a road bridge crossing the Lancaster Canal; bridge approach embankments and earthworks. The approximate central grid reference for the scheme is SD 48635 31377. This development is related to the permitted road schemes of Preston Western Distributor (PWD) and the East West Link Road (EWLR) including Cottam Link Road.

A suite of ecological surveys was required in order to establish an accurate baseline against which the impacts of the scheme (both temporary and permanent) could be assessed in line with the Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines for Ecological Impact Assessment (CIEEM, 2018). This report presents the results of a survey for wintering birds undertaken by Jacobs' ecologists between and including October 2019 and March 2020.

The surveys were undertaken in consideration of the original proposed likely construction site area and 500m buffer area provided by LCC (LCC Drawing CLM07-DEV-010; Dated 07-10-2019) and the walkover notice area / survey exclusion area drawing provided by LCC (LCC Drawing CLM07-DEV-010-03; Dated 16-12-2019). The surveys were conducted within the site area and 500m buffer area (i.e. the survey area) shown in Figure 1 and subsequent figures presented in Appendix A. Further information on the scheme design was not available at the time of survey / writing.

## 1.2 Survey Objectives

The key objectives of this report are to:

- Identify seasonal patterns of habitat utilisation within the survey area for wintering birds;
- Evaluate the ecological value / importance of the wintering bird population and assemblages in the survey area;
- Inform the assessment of potential impacts on wintering birds associated with the scheme (as detailed within the Environmental Statement (ES); and
- Provide sufficient field data for the development of appropriate mitigation if necessary (as detailed within the ES).

## 1.3 Legislative, Planning Policy and Biodiversity Framework Background

A summary of the legislation and policy framework for bird species is given below. Further details, along with information regarding the nature conservation status for bird species is provided in Appendix B.

### 1.3.1 Legislation

Many UK bird species and their habitats are protected by legislation. The key articles of relevance to this scheme include:

- The Conservation of Habitats and Species Regulations 2017 (as amended);
- Council Directive 2009 / 147 / EC on the conservation of wild birds (the 'Birds Directive');
- Wildlife and Countryside Act (WCA) 1981 (as amended);
- Countryside and Rights of Way (CROW) Act 2000; and
- Natural Environment and Rural Communities (NERC) Act 2006.

### 1.3.2 Biodiversity Framework

#### Habitats and Species of Principal Importance

In addition to species protected by law, the NERC Act 2006 requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England (referred to herein as a Section 41 listed species). There are 943 species of principal importance which were initially identified as requiring conservation action under the UK Biodiversity Action Plan (BAP) and which continue to be regarded as priorities under the UK Post-2010 Biodiversity Framework.

#### Local Biodiversity Action Plan (LBAP)

The LBAP for Lancashire [accessed April 2020] includes species specific action plans for eight species of birds, these are:

- Black-tailed godwit (*Limosa limosa islandica*);
- Hen harrier (*Circus cyaneus*);
- House sparrow (*Passer domesticus*);
- Lapwing (*Vanellus vanellus*);
- Reed bunting (*Emberiza schoeniclus*);
- Skylark (*Alauda arvensis*);
- Song thrush (*Turdus philomelos*); and
- Twite (*Carduelis flavirostris*).

Additionally, due to significant declines since the 1970's a 'farmland birds' action plan includes the following six species (reed bunting is included in this list but has its own species action plan (as above) so is not listed below):

- Corn bunting (*Emberiza calandra*);
- Grey partridge (*Perdix perdix*);
- Linnet (*Carduelis cannabina*);
- Tree sparrow (*Passer montanus*);
- Yellowhammer (*Emberiza citrinella*); and
- Yellow wagtail (*Motacilla flava*).

### 1.3.3 Conservation Status

A widely adopted review of the status of UK birds: The Population Status of Birds in the UK, Birds of Conservation Concern (BoCC) 4: 2015 (Eaton *et al.*, 2015) is followed within this report in relation to conservation status of UK bird species. Birds are assessed against criteria to place each species on one of three alert lists; Red, Amber or Green. Red List species are considered to be of high conservation concern and Amber List species are considered to be of medium conservation concern. Green List species are considered to be of low conservation concern and as such, are not dealt with in this report unless they are listed in a separate list for a sites' designation e.g. qualifying feature for a Special Protection Area (SPA). Hereafter, BoCC listed species shall be referred to by their status alone i.e. Red or Amber.



## 2. Methodology

### 2.1 Desk Study

#### 2.1.1 Statutory and Non-Statutory Designated Sites

The MAGIC database was used to identify statutory designated sites that have been wholly or partly designated due to the bird assemblages, within 5km (Figure 2, Appendix A) from the site area and 500m buffer area as per LCC's Drawing CLM07-DEV-010; Dated 07-10-2019).

#### 2.1.2 Non-statutory Designated Sites

The local records centre, Lancashire Environment Record Network (LERN) was contacted in March 2020 for information on non-statutory designated sites i.e. Biological Heritage Sites (BHS) within 1km of the site area and 500m buffer (i.e. the survey area). Those relevant to this report are those which specifically cite wintering bird populations as being a feature of interest.

#### 2.1.3 LERN Bird Species Data

The data search request to LERN also included a search for protected / notable species within 1km of the site area and 500m buffer area (i.e. the survey area). Legally protected and notable bird species were of particular interest and included: species of principal importance (NERC, 2006), Birds of Conservation Concern (Red and Amber List species) and LBAP species.

Wintering bird records were selected within the data sets from outside of the breeding season (generally September to March). Where no specific sighting date was provided, professional judgement and knowledge of species' ecology i.e. migration patterns were used to categorise the record i.e. wintering, breeding or passage migrant / vagrant. Records more than 10 years old i.e. 2010 or earlier were considered historical and were discarded from the analysis.

#### 2.1.4 Preston Western Distributor / East West Link Road Bird Species Data

The *Preston Western Distributor and East West Link Road Environmental Statement*. Chapter 6, Volume 2 (Jacobs, 2017) was also reviewed. This includes a full suite of ecological surveys of which, wintering bird surveys were completed between and including October 2014 and March 2015. The PWD / EWLR scheme is located adjacent to and within the Cottam Parkway site and 500m buffer area. A summary of the number of species recorded during the PWD / EWLR field surveys and any notably large populations is provided within this report.

#### 2.1.5 Field Survey Transect Design

The winter bird survey transects were designed prior to the completion of an extended phase 1 habitat survey (EP1HS). The transect route (Figure 1, Appendix A) was designed based on local knowledge of the area acquired during surveys undertaken by Jacobs in the area surrounding the Cottam Parkway scheme which is located adjacent to and within the PWD / EWLR scheme boundaries. Freely available online resources were also used including:

- MAGIC (<https://magic.defra.gov.uk/>); and
- Google Maps (<https://www.google.com/maps>).

### 2.2 Field Survey

Using aerial imagery, suitable habitats for wintering birds were identified within the site area and 500m buffer area provided by LCC in October 2019 (LCC's Drawing CLM07-DEV-010; Dated 07-10-2019). As identified by LCC (LCC Drawing CLM07-DEV-010-03; Dated 16-12-2019), several areas within the 500m buffer area were not accessible due to proposed developments or construction sites. The PWD scheme in particular was in the construction phase during the Cottam Parkway wintering bird surveys and it bisected the 500m buffer area.

The transect was therefore designed to avoid passing over or through construction areas due to health and safety concerns (see Limitations section below). The transect route includes a variety of habitats including open farmland, hedgerows, woodland and waterbodies within and up to 500m from the site area, known as the 'buffer area' on LCC's Drawing CLM07-DEV-010; Dated 07-10-2019. Hereafter, this will be referred to as the 'survey area' unless otherwise stated. The transect was designed to ensure that surveyors passed within 200m of all parts of the survey area. The transect route is shown on Figure 1 (Appendix A) and subsequent survey visit figures (Figures 3 – 8).

### 2.2.1 Survey Methodology

All surveys were carried out with reference to the current good practice guidance survey methodology for wintering bird surveys, these were; Winter Farmland Bird Survey (Gillings *et al.*, 2008) and Bird Monitoring Methods (Gilbert *et al.*, 1998).

Six survey visits were carried out once a month between and including October 2019 and March 2020. Where possible, an equal period of time between each survey was applied. Survey dates are provided Table 2.1. Surveys were carried out between 07:00 and 16:00, subject to daylight hours and also the weather forecast. Visits were planned to avoid adverse weather conditions such as heavy precipitation, strong winds etc. as this can reduce bird activity. Appendix C provides full survey metadata.

Table 2.1 Cottam Parkway wintering bird field survey dates

Visit Number	Date
1	31 <sup>st</sup> October 2019
2	15 <sup>th</sup> November 2019
3	19 <sup>th</sup> December 2019
4	24 <sup>th</sup> January 2020
5	26 <sup>th</sup> February 2020
6	20 <sup>th</sup> March 2020

On each visit, two experienced ornithologists walked along the pre-determined transect route at a slow walking pace. The starting point and the route direction were varied throughout the visits in order to reduce survey bias. Surveyors recorded all birds heard or seen with the aid of binoculars. Figures 3 to 8 (Appendix A) present the survey transects and the bird registrations. Each record of an individual bird (identified either by their call or visual sighting), was recorded on field maps using the BTO codes (Appendix D). Care was taken to avoid double counting. Longer periods of observations were made in areas of higher bird activity.

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

- Bird numbers and species;
- Habitats being used; and
- Bird behaviour e.g. feeding, in a flock or in flight.

### 2.3 Evaluation

Ecological Impact Assessment (EclA) uses a hierarchical geographic framework to assign importance to ecological features. This is based on an understanding of how the ecological feature may contribute to the conservation status or distribution of the species or habitat at a particular geographical scale. It involves an assessment of the biodiversity importance of ecological features and also involves consideration of other factors that can be attached to ecological features including ecosystem services and natural capital (CIEEM, 2018).

The new Design Manual for Roads and Bridges (DMRB) LA 108 Biodiversity (formerly Volume 11, Section 3, Part 4 Ecology and Nature Conservation and IAN 130 / 10) guidance (Highways England, 2020) and the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment in the

UK and Ireland; Terrestrial, Freshwater, Coastal and Marine (CIEEM, 2018) recommends that the value / importance of a biodiversity resource / ecological feature be considered within a defined geographical context. The geographic categories stated in the two sets of guidance differ slightly but are largely comparable (see below). Therefore, the value / importance of biodiversity resources within the study area was assessed according to the following defined geographical framework as per current CIEEM (2018) and Highways England (2020) guidance<sup>1</sup>.

- International and European (International or European).
- National (UK or National).
- Regional (Regional) e.g. North-West England.
- Metropolitan, County, Vice County or other local authority-wide area (County or equivalent authority) e.g. Lancashire.
- River Basin District (CIEEM only). District is used herein as a geographic frame of reference e.g. Preston
- Estuary System / Coastal cell (CIEEM only).
- Local (Local) (e.g. within 2km of the scheme).
- Less than local.

In international and UK bird conservation, it has become an established practice to regard 1% of a species' total population, at the range under consideration e.g. national, international, biogeographic, as a threshold when assessing whether sites should be designated (Bainbridge *et al.*, 2013). In addition, the Royal Society for the Protection of Birds (RSPB) in conjunction with Wildlife Trust for Lancashire, Manchester & North Merseyside (LWT), LCC, Natural England (NE) and the Merseyside Environmental Advisory Service (MEAS), issued guidance for biomass planting in the vicinity of sensitive bird populations in the North West in 2008 (RSPB *et al.*, 2008) [accessed 1<sup>st</sup> April 2020]. This document, called *Biomass planting and Sensitive Bird Populations: A Spatial Planning Guide for Biomass Energy Crop Planting in North West England* defines an 'important population' as '1% of the relevant SPA population'. Therefore, this assessment has used a 1% threshold in relation to numbers specified in designated site citations, national populations records found in Population Estimates of Birds in Great Britain and the United Kingdom, (Musgrove *et al.*, 2013) and county records found in The State of Lancashire's Birds: An Atlas of the Breeding and Wintering Birds of Lancashire and North Merseyside 2007-2011 (White *et al.*, 2013).

## 2.4 Limitations

With regards the desk study data: although the data provided by the consultees is the most complete set of species data available, the absence of records should not be taken as an indication of absence of species. Furthermore, as discussed in the Methodology section, the records included in the Results section below relate to the LCC Drawing CLM07-DEV-010 (dated 07-10-2019) which differs to that used for subsequent, more recent field surveys that have been designed with an updated scheme boundary. For consistency purposes, the third-party wintering bird data reported herein relates to a 1km study area from the original site area and 500m buffer area on which the wintering bird surveys are based. This is not seen to be a significant limitation to either the desk study or field survey results as a full winter survey season of field surveys was undertaken and records from planning applications submitted in the local area i.e. PWD / EWLR were also reviewed for any notable bird records.

Light rain and hail showers were encountered during the fifth survey in February 2020, but these were not prolonged and in the last hour of the survey (between 14:00 and 15:00) thus a vast majority of the survey data had already been collected and are therefore not seen as a significant limitation to the survey's findings.

As discussed in Section 2.2 Field Survey, the transect was designed to account for any proposed developments and / or construction sites within the 500m survey area. Notable construction sites relate to the PWD / EWLR schemes. During the first visit in October 2019 the construction of the PWD scheme, which bisects the Cottam Parkway wintering bird survey area, was in its very early stages. The construction impacts to local bird populations were likely to be low at this stage. However, as the surveys progressed into 2020 the level of construction markedly

---

<sup>1</sup> The CIEEM (2018) value is given first with the corresponding Highways England (2019b) value given in brackets where applicable.

increased, and the local bird populations would have been affected; with bird species being displaced into the wider area. Such impacts will persist throughout the construction phase and also during operation until birds have become habituated to the new levels of disturbance and / or new planting becomes established. The data provided by these winter bird surveys represents an accurate baseline of the wintering bird population and this is not considered to be significant constraint to the objectives of the survey.

The findings of this report represent the professional opinion of qualified ecologists and do not constitute professional legal advice. The client may wish to seek professional legal interpretation of the relevant wildlife legislation cited in this document.

## 3. Results

### 3.1 Desk Study

#### 3.1.1 Statutory Designated Sites

Seven statutory designated sites were identified within 5km of the survey area (Figure 2), these were:

- Ribble and Alt Estuaries SPA;
- Ribble and Alt Estuaries Ramsar Site;
- Ribble Estuary Site of Special Scientific Interest (SSSI);
- Newton Marsh SSSI;
- Ribble Estuary National Nature Reserve (NNR);
- Haslam Park Local Nature Reserve (LNR); and
- Preston Junction LNR.

The two LNRs listed above have not been designated due to their wintering bird populations, as such they will not be discussed any further within this report. However, all five of the remaining designated sites have been designated wholly, or in part due to their assemblages of bird species and are outlined below.

#### Ribble and Alt Estuaries SPA

The Ribble and Alt Estuaries SPA is located approximately 3.9km south west of the Cottam Parkway scheme's approximate central grid reference at SD 48635 31377 and covers an area of 12,412ha. The vast majority of the SPA comprises the Ribble and Alt Estuaries Ramsar, Ribble Estuary SSSI and the Ribble Estuary NNR respectively (see below). It is primarily designated for supporting bird assemblages of European importance and wetlands of international importance. It qualifies as a SPA under Articles 4.1 and 4.2 of the EEC Directive 2009 / 147 / EC, for its internationally important assemblage of birds.

The Jacobs survey data peak counts were assessed against the SPA selection criteria which are available via the JNCC (JNCC, 2020) [accessed 1st April 2020] and Natural England (Natural England, 2019) websites. Refer to Appendix E for a full list of bird species included within the Ribble and Alt Estuaries SPA citation.

#### Ribble and Alt Estuaries Ramsar

The Ribble and Alt Estuaries Ramsar site is located approximately 3.9km south west of the scheme's approximate central grid reference at SD 48635 31377 and covers an area of 13,464.10ha. The Ribble and Alt Estuaries SPA, Ribble Estuary SSSI and NNR respectively with much of the area also covered by the Ramsar designation (refer to Figure 2, Appendix A). It is primarily designated for supporting bird assemblages of European importance and wetlands of international importance and occupies much of the same area as the Ribble and Alt Estuaries SPA. The site qualifies as a Ramsar site under Ramsar criterion 2 (vulnerable, endangered or critically endangered species, or threatened ecological communities), Ramsar criterion 5 (assemblage of international importance) for its water-bird population, and Ramsar criterion 6 (species / populations occurring at levels of international importance). For further site details including a list of qualifying species, refer to Appendix F.

#### Ribble Estuary SSSI

The Ribble Estuary SSSI is located approximately 3.9km south west of the scheme's approximate central grid reference at SD 48635 31377. The SSSI is approximately 9226ha in size and forms part of the SPA, Ramsar site and Ribble Estuary NNR (see above and refer to Figure 2, Appendix A). The SSSI estuary supports internationally important numbers of the following waterfowl: Bewick's swan (*Cygnus columbianus bewickii*); pink-footed goose (*Anser brachyrhynchus*); shelduck (*Tadorna tadorna*); wigeon (*Anas penelope*); oystercatcher (*Haematopus ostralegus*); knot (*Calidris canutus*); sanderling (*Calidris alba*); dunlin (*Calidris alpina alpina*); black-tailed and bar-tailed godwit (*Limosa lapponica*), as well as smaller populations of lapwing; curlew (*Numenius arquata*); mallard (*Anas platyrhynchos*); teal (*Anas crecca*); grey plover (*Pluvialis squatarola*); and golden plover (*Pluvialis apricaria*). For the purpose of this assessment, populations of these individual species are considered to be

qualifying species of the SSSI. The total numbers of waterfowl are also of international importance. Wildfowl numbers regularly exceed the criterion of 10,000. During the period 1977–82 the peak counts of waders greatly exceeded the criterion of 20,000, being always in excess of 56,000 with a maximum of 86,000, keeping the Ribble in the top seven estuaries in Britain for waders. For full site details refer to Appendix G.

The Jacobs survey data was assessed against the nationally important Ribble Estuary SSSI selection criteria which are available via the Natural England website:

<https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1004299&SiteName=&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCAArea=> [accessed 1<sup>st</sup> April 2020]

### Newton Marsh SSSI

Newton Marsh SSSI is located approximately 3.6km south west of the scheme's approximate central grid reference at SD 48635 31377. The site covers an area of 65.6ha and is comprised of grazed, improved pasture reclaimed from former saltmarsh but retaining a number of pools and ditches. These features, the relative lack of disturbance, its size and proximity to the Ribble Estuary and its position along a major migration route down the west coast of Britain account for the importance of the site for over-wintering and migrant birds. Over 100 bird species have been recorded from Newton Marsh, the majority being spring and winter visitors. The proximity of Newton Marsh to the Ribble Estuary allows an interchange of birds between the two sites. Large flocks of golden plover habitually favour this site in the winter and numbers present each year (up to 8,000) regularly exceed the qualifying level for national importance (2,000). Other winter visitors include large numbers of lapwing (up to 10,000) with smaller flocks of snipe, bar-tailed godwit, redshank (*Tringa totanus*), dunlin, mallard, teal, shelduck and wigeon. In spring and autumn up to 1,200 black-tailed godwits have been recorded from the site and numbers of this species are in most years in excess of the qualifying level for national importance (50). Other passage migrants include greenshank (*Tringa nebularia*), spotted redshank (*Tringa erythropus*), common sandpiper (*Actitis hypoleucos*) and sanderling. For the purpose of this assessment, populations of these individual species are considered to be qualifying species of the SSSI. For further site details refer to Appendix H.

The Jacobs survey data was assessed against the nationally important Newton Marsh SSSI selection criteria which are available via the Natural England website;

<https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1001819.pdf> [accessed 1<sup>st</sup> April 2020].

### Ribble Estuary NNR

The Ribble Estuary NNR is approximately 4.1km south west of the scheme's approximate central grid reference at SD 48635 31377. The Ribble Estuary NNR is comprised of the SPA, Ramsar and SSSI sites discussed above. It has extensive intertidal sand-silt flats with one of the largest areas of grazed marsh in Britain and includes small areas of recently reclaimed saltmarsh. The estuary is of international importance for the passage and wintering waterfowl it supports. It is a key site in the chain of wetlands which make up the east Atlantic flyway or migration route for wintering wildfowl and waders and also forms part of the SPA and Ramsar site with an area of 4587ha. During the winter months the site supports thousands of waterfowl. Specific numbers are not provided for the wintering species mentioned (nor the breeding) which are Bewick's swan, pink-footed goose, shelduck, wigeon, oystercatcher, knot, sanderling, dunlin, black-tailed and bar-tailed godwit, lapwing, curlew, grey and golden plover.

There are no detailed species records for the NNR, consequently, the evaluation of the Cottam Parkway scheme does not take into account the populations of individual species for NNRs. However, the RSPB in conjunction with LWT, LCC, NE and MEAS, issued guidance for biomass planting in the vicinity of sensitive bird populations in the North West in 2008 (RSPB *et al.*, 2008) [accessed 1<sup>st</sup> April 2020]. This document (discussed in the Methodology section above), defines an 'important population' as '1% of the relevant SPA population'. As such the evaluation for the NNR has been completed in relation to the Ribble and Alt Estuaries SPA. For further site details refer to Appendix G or via the Natural England website:



<https://designatedsites.naturalengland.org.uk/SiteGeneralDetail.aspx?SiteCode=1006123&SiteName=ribble%20Oestuary&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=> [accessed 1<sup>st</sup> April 2020].

### 3.1.2 Non-statutory Designated Sites

The LERN data search revealed three BHS within 1km of the scheme as listed below. In addition, LCC have revealed the presence of a new non-statutory designated wildlife site known as Dobcroft Nature Reserve. This site is located approximately 1km east of the scheme. These non-statutory designated sites have not been designated because of their wintering bird populations and as such will not be discussed further in this report but are listed and described below and included on Figure 2 (Appendix A).

- **Lancaster Canal Whole Length in Lancashire Including Glasson Branch BHS** – Lancaster Canal runs through the scheme area. The canal is the largest and most species rich waterbody in the county, supporting a large assemblage of plant and animals associated with slow flowing water.
- **BNFL Springfield's Works Ponds BHS** – 25m west of the scheme area. The site comprises an area of undeveloped land, the main feature is a narrow 'L-shaped' water-filled trench that supports a large number of frogs, toads, smooth and GCN. The site is also of botanical interest.
- **Deepdale Wood BHS** – 580m west of the scheme area. The site comprises two neighbouring parcels of semi-natural broad-leaved woodland. were identified within 1km of the 500m buffer area as per LCC's Drawing CLM07-DEV-010; Dated 07-10-2019.

### 3.1.3 LERN Bird Species Data

For both breeding and wintering bird species a total of 668 records of 44 bird species within 1km of the survey area (the 500m buffer area to the site area as per LCC's Drawing CLM07-DEV-010; Dated 07-10-2019) were returned on 31<sup>st</sup> March 2020. Of these 626 records for 38 are categorised as being wintering, passage, migrant or vagrant species as outlined in the Methodology section 2.1.1.

- 2 qualifying species for the Ribble and Alt Estuaries SPA;
- 2 qualifying species for the Ribble and Alt estuaries Ramsar;
- 5 notable species for the Ribble Estuary SSSI;
- 14 species of principal importance (NERC, 2006);
- 7 of the 13 bird species in the Lancashire LBAP;
- 15 species on the Red List Birds of Conservation Concern; and
- 18 species on the Amber List Birds of Conservation Concern.

Please note in the total number of records and species, three species; Canada goose (*Branta canadensis*), pheasant (*Phasianus colchicus*) and red-legged partridge (*Alectoris rufa*) are included. None of these species are notable but they are likely to occur within the search area and be a "wintering, passage, migrant or vagrant" species.

### 3.1.4 PWD/EWLR Bird Species Data

A review of the PWD / EWLR road schemes, for which Jacobs completed a full suite of ecology surveys and submitted an Environmental Statement (Jacobs, 2017), was undertaken. A total of 76 wintering bird species were recorded during field surveys within the PWD / EWLR survey area between 2014-2015 (Jacobs, 2017). The utilisation of the PWD / EWLR field survey area (of which there is some crossover with the Cottam Parkway survey area) by waders, gulls, winter thrushes, passerines and other bird species groups was considered to be typical of the habitats present i.e. intensively managed improved pasture bounded by hedgerows with ponds and small woodlands scattered throughout.

However, larger numbers for some species were recorded during the 2014/15 PWD / EWLR wintering bird surveys field surveys. A summary of these is provided below. For further detailed information on other species refer to the PWD / EWLR Environmental Statement (Jacobs, 2017).

### Redwing

Relatively large numbers of redwing (*Turdus iliacus*) were recorded. A peak count of 1059 was recorded during the November 2014 survey visit. This total exceeds the 1% threshold, as discussed in the Evaluation section 2.3, and based on this criteria the population is important at the **County Level**.

### Starling

During the third survey visit in 2014, 481 starlings (*Sturnus vulgaris*) were recorded across the PWD / EWLR field surveys. The starling populations is considered to be of **Local Importance**.

### Mallard

Mallard exceeded the 1% threshold during the November 2014 survey visit for the PWD scheme only. This total is 1.4% of the Lancashire wintering population (Musgrove *et al.*, 2013) and based on the criteria stated herein, is of **County Importance**.

### Black-headed Gull

During the fourth (January) visit in 2015 a peak count of 225 black-headed gulls (*Chroicocephalus ridibundus*) was recorded across the PWD / EWLR schemes. This total is 0.75% of the total Lancashire wintering population and therefore is of **Local Importance**.

### Lesser Black-backed Gull

One hundred and thirty-six lesser black-backed gulls (*Larus fuscus*) were recorded across the PWD / EWLR scheme and this accounts for 6.8% of Lancashire's wintering population thus is of **County Importance**.

## 3.2 Field Survey Results

A total of 63 bird species were recorded within the Cottam Parkway survey area and included:

- 3 qualifying species for the Ribble and Alt Estuaries SPA;
- 3 qualifying species for the Ribble and Alt Estuaries Ramsar site;
- 6 qualifying species for the Ribble Estuary SSSI;
- 4 qualifying species Newton Marsh SSSI;
- 10 species of principal importance (Section 41 listed species)
- 6 Lancashire BAP species;
- 11 Red listed species on the BoCC 4 (2015); and
- 20 species on the Amber List of the BoCC 4: 2015.

All birds recorded during each of the six survey visits, their numbers and conservation status are presented in Appendix I. The locations of their registrations for all of the survey visits are presented in Figures 3 – 8, Appendix A.

### 3.2.1 Species of Conservation Concern

#### Waders

A small number of waders were recorded loafing and feeding in the fields during the wintering bird surveys (refer to Table 3.1). Loafing refers to bird behaviour when it is in a general state of immobility, involving several heterogeneous behaviours that are not connected to feeding or breeding, such as; sleeping, sitting, standing, resting and defecating.

The wader species recorded were curlew, lapwing, oystercatcher, snipe and woodcock (*Scolopax rusticola*). The birds were generally scattered throughout the survey area although were generally found in their expected habitats, for example woodcock within the undergrowth in woodland or snipe adjacent to pools, ponds or wetter areas of grassland.



Two single curlews were recorded during visits 5 (February 2020) and 6 (March 2020) respectively. Curlew is Red listed and a section 41 listed species. It is also listed within the assemblage qualification for the Ribble and Alt Estuaries SPA for which the site qualifies under article 4.2 of the Birds Directive. The assemblage qualification refers to the 20,000 or more waterbirds which use the SPA during the non-breeding season. There are an additional 22 species of birds in addition to curlew. Curlew is also listed as one of the waterfowl species for which the Ribble Estuary SSSI is notified for i.e. the SSSI supports internationally important numbers of bird species including curlew. Other species for which the site is notified include other waterfowl and wildfowl species. Refer to Appendix E - I for site designation citation sheets which include details of bird populations.

The maximum count for lapwing during the surveys was 16, during visit 2 (November 2019). They were recorded during four of the six surveys. Lapwing is a Red Listed, Section 41 listed and a Lancashire BAP listed species. It is also listed within the assemblage qualification (though not individually qualifying) for the Ribble and Alt Estuaries SPA for which the site qualifies under article 4.2 of the Birds Directive. The assemblage qualification refers to the 20,000 or more waterbirds which use the SPA during the non-breeding season. There are an additional 22 species of birds in addition to lapwing. It is also listed in the Ribble Estuary and Newton Marsh SSSI citations respectively.

Two oystercatchers were recorded on the sixth visit in March 2020. The species is Amber listed and is a Qualifying species for the Ribble and Alt Estuaries SPA and is also listed as a notable assemblage species for the Ribble Estuary SSSI.

Snipe were recorded during four of the six survey visits with a peak count (eight) in October 2019 (visit 1). Thereafter a maximum of two snipe were recorded during visits 5 and 6 respectively. Snipe is Amber listed and is listed as part of the Newton Marsh SSSI species assemblage.

A peak count of two woodcock were recorded during the second visit (November 2019). Subsequent records during visits 5 (February 2020) and 6 (March 2020) respectively of a single bird were noted. Woodcock is Red listed.

Table 3.1 Peak counts of wader species by visit

Species	Scientific name	Visit 1 Oct	Visit 2 Nov	Visit 3 Dec	Visit 4 Jan	Visit 5 Feb	Visit 6 Mar
Curlew	<i>Numenius arquata</i>	-	-	-	-	1	1
Lapwing	<i>Vanellus vanellus</i>	3	16	-	-	9	1
Oystercatcher	<i>Haematopus ostralegus</i>	-	-	-	-	-	2
Snipe	<i>Gallinago gallinago</i>	8	1	-	-	2	2
Woodcock	<i>Scolopax rusticola</i>	-	2	-	-	1	1

### Wildfowl

Six species of wildfowl were recorded during the six surveys between October 2019 and March 2020 inclusive, these were; Canada goose (*Branta canadensis*), greylag goose (*Anser anser*), mallard, mute swan (*Cygnus olor*), pink-footed goose and teal (refer to Table 3.2).

Canada geese were recorded on four of the six visits with a peak of 13 during visit 5. Canada goose is common and is not listed on the BoCC 4 or listed as notable on any site citation.

Greylag goose was recorded on visit 1 when a pair were observed. They were not recorded for the subsequent five survey visits. Greylag goose is Amber listed.

Mallard were recorded using the ponds and pools found throughout the survey area. They were one of a few species recorded during all six survey visits with a peak count of 30 during visit 4 (January 2020). Mallard is Amber listed and is listed in the bird assemblages for both the Ribble Estuary and Newton Marsh SSSIs respectively.

Mute swan were recorded on the final two visits in February and March 2020. Both were seen flying over the survey area and were not found to be roosting, feeding etc. Mute swan is Amber listed.

## Wintering Bird Survey Report

Pink-footed geese were seen flying over the site and were not found to be roosting or feeding within the survey area. They were however, seen on three of the six survey visits with a peak count of 80 in October 2019. Subsequent records were lower with 55 and 31 birds being recorded flying over the survey area during visits 3 and 4. Pink-footed goose is Amber listed, a Ribble and Alt Estuaries SPA, Ramsar and SSSI Qualifying species.

A peak count of 102 teal were recorded on a pond to the north of Earl's Farm. There were however, recorded in lower numbers in each of the six visits and were found to be using the ponds scattered throughout the survey area. Teal are Amber listed, listed as a Qualifying species for the Ribble and Alt Estuaries SPA and Ramsar as well as an assemblage species for both the Ribble and Alt Estuaries and Newton Marsh SSSIs respectively.

Table 3.2 Peaks counts of wildfowl by visit

Species	Scientific name	Visit 1 Oct	Visit 2 Nov	Visit 3 Dec	Visit 4 Jan	Visit 5 Feb	Visit 6 Mar
Canada goose	<i>Branta canadensis</i>	-	-	1	7	13	8
Greylag goose	<i>Anser anser</i>	2	-	-	-	-	-
Mallard	<i>Anas platyrhynchos</i>	17	18	20	30	14	9
Mute swan	<i>Cygnus olor</i>	-	-	-	-	2	3
Pink-footed Goose	<i>Anser brachyrhynchus</i>	80	-	55	31	-	-
Teal	<i>Anas crecca</i>	5	1	29	102	37	8

### Winter Thrushes

Two species of winter thrushes were recorded; fieldfare (*Turdus pilaris*) and redwing (refer to Table 3.3).

Fieldfare were recorded on the first three visits up to and including December 2019. A peak count of 217 birds was recorded during the October 2019 visit with 47 and 19 recorded in the two subsequent months. Fieldfare is a Red listed species.

Redwing was recorded on all but the final visit. A peak of 639 was recorded during visit 3 (December 2019) with 185 birds being recorded during the following visit in January 2020. Records were scattered throughout the survey area but there was a concentration of birds immediately north and south of Darkinson Lane. Redwing is a Red listed species.

Table 3.3 Peak counts of winter thrushes by visit

Species	Scientific name	Visit 1 Oct	Visit 2 Nov	Visit 3 Dec	Visit 4 Jan	Visit 5 Feb	Visit 6 Mar
Fieldfare	<i>Turdus pilaris</i>	217	47	19	-	-	-
Redwing	<i>Turdus iliacus</i>	130	77	639	185	91	-

### Small passerines and other species

An assemblage of farmland passerines was recorded throughout the survey area (refer to Table 3.4) including; bullfinch (*Pyrrhula pyrrhula*) an Amber and Section 41 listed species; dunnoek (*Prunella modularis*) an Amber listed species; house sparrow a Red, Section 41 and Lancashire BAP listed species; meadow pipit (*Anthus pratensis*) an Amber listed species; reed bunting an Amber, Section 41 and Lancashire BAP listed species; skylark a Red, Section 41 and Lancashire BAP listed species; and tree sparrow a Red, Section 41 and Lancashire BAP listed species.

Grey wagtail (*Motacilla cinerea*) were recorded during all six visits with a peak count of 15 recorded during the March visit. Prior to this record a peak of three birds during anyone survey was recorded in October and December 2019 and February 2020. Grey wagtail is a Red listed species.

Kingfisher (*Alcedo atthis*) was recorded during the first visit in October 2019 flying along the Lancaster Canal. It was not recorded again during the subsequent five visits. Kingfisher is an Amber listed species.

## Wintering Bird Survey Report

Song thrush and mistle thrush (*Turdus viscivorus*) were both recorded in relatively low numbers throughout all six visits. Peak counts were 18 song thrush recorded in November and six mistle thrush in December 2019. Both song and mistle thrush are Red listed species, however the former is also a Section 41 and Lancashire BAP species.

Starling were recorded on all six visits with numbers peaking in December when 690 birds were recorded. Records of 270 and 257 birds were recorded in November 2019 and January 2020 respectively. Starling is a Red and Section 41 listed species.

Stock dove (*Columba oenas*) peak numbers were recorded during visit one when four birds were observed flying over the survey area. Stock dove are an Amber listed species.

Table 3.4 Peak counts of passerines and other species by visit

Species	Scientific name	Visit 1 Oct	Visit 2 Nov	Visit 3 Dec	Visit 4 Jan	Visit 5 Feb	Visit 6 Mar
Bullfinch	<i>Pyrrhula pyrrhula</i>	2	1	-	-	-	-
Dunnock	<i>Prunella modularis</i>	4	4	7	8	1	2
Grey wagtail	<i>Motacilla cinerea</i>	3	2	3	1	3	15
House sparrow	<i>Passer domesticus</i>	16	27	30	15	2	-
Kingfisher	<i>Alcedo atthis</i>	1	-	-	-	-	-
Meadow pipit	<i>Anthus pratensis</i>	17	4	1	1	7	15
Mistle thrush	<i>Turdus viscivorus</i>	-	2	6	2	-	1
Reed bunting	<i>Emberiza schoeniclus</i>	1	-	2	-	-	1
Skylark	<i>Alauda arvensis</i>	6	1	-	-	3	-
Song thrush	<i>Turdus philomelos</i>	10	18	11	6	-	-
Starling	<i>Sturnus vulgaris</i>	94	270	690	257	19	1
Stock dove	<i>Columba oenas</i>	5	1	-	5	3	1
Tree sparrow	<i>Passer montanus</i>	1	-	-	-	2	1

### Gull Species

Five gull species were recorded during the surveys (refer to Table 3.5), these were black-headed gull, common gull (*Larus canus*), great black-backed gull (*Larus marinus*), herring gull (*Larus argentatus*) and lesser black-backed gull. All five gull species are Amber listed.

Numbers were relatively low for all gull species with 14 being the highest total recorded for common, great black-backed, herring and lesser black-backed gull. However, 101 black-headed gulls were recorded in a sheep grazed, improved field that lay to the north of Brylea Caravan Park and Lea Lane.

Table 3.5 Peak counts of gull species by visit

Species	Scientific name	Visit 1 Oct	Visit 2 Nov	Visit 3 Dec	Visit 4 Jan	Visit 5 Feb	Visit 6 Mar
Black-headed gull	<i>Chroicocephalus ridibundus</i>	25	101	15	84	6	-
Common gull	<i>Larus canus</i>	-	9	-	3	-	-
Great black-backed gull	<i>Larus marinus</i>	-	-	-	-	1	-
Herring gull	<i>Larus argentatus</i>	2	3	13	14	1	4
Lesser black-backed gull	<i>Larus fuscus</i>	2	-	-	4	5	-

### Raptors

Four raptors were recorded, these were kestrel (*Falco tinnunculus*) an Amber listed species and buzzard (*Buteo buteo*), little owl (*Athene noctua*) and sparrowhawk (*Accipiter nisus*) (refer to Table 3.6).

## Wintering Bird Survey Report

Kestrel was recorded during all six visits. A peak count of four was recorded on the first survey visit in October 2019. Kestrel activity was predominantly focused along the train line where numerous perches in the form of overhead cable supports were available for hunting.

Table 3.6 Peak counts of raptors by visit

Species	Scientific name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6
		Oct	Nov	Dec	Jan	Feb	Mar
Buzzard	<i>Buteo buteo</i>	8	5	4	4	2	2
Kestrel	<i>Falco tinnunculus</i>	4	3	3	1	1	1
Little owl	<i>Athene noctua</i>	-	-	-	-	-	1
Sparrowhawk	<i>Accipiter nisus</i>	1	-	2	-	-	-

### SPA qualifying species

The following table summarises the three species (oystercatcher, pink-footed goose and teal) recorded during the field survey that qualify under the SPA wintering bird criteria. All are species that are noted in the species list of the assemblage qualification under Articles 4.1 and 4.2.

Refer to the above sections of 'waders', 'wildfowl' and 'gulls' for detailed descriptions of the species listed in Table 3.7.

Table 3.7 Peak counts of all Ribble and Alt Estuaries SPA qualifying species by visit

Species	Scientific name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6
		Oct	Nov	Dec	Jan	Feb	Mar
Oystercatcher	<i>Haematopus ostralegus</i>	-	-	-	-	-	2
Pink-footed Goose	<i>Anser brachyrhynchus</i>	80	-	55	31	-	-
Teal	<i>Anas crecca</i>	5	1	29	102	37	8

### Ramsar qualifying species

The following table summarises the three species recorded during the field survey that qualify under the Ramsar wintering bird criteria, these species were Oystercatcher, Pink-footed Goose and teal. All are species that qualify under Ramsar Criterion 5. Refer to the above sections of 'waders', 'wildfowl' and 'gulls' for detailed descriptions of the species listed in Table 3.8.

Table 3.8 Peak counts of all Ramsar qualifying species by visit

Species	Scientific name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6
		Oct	Nov	Dec	Jan	Feb	Mar
Oystercatcher	<i>Haematopus ostralegus</i>	-	-	-	-	-	2
Pink-footed goose	<i>Anser brachyrhynchus</i>	80	-	55	31	-	-
Teal	<i>Anas crecca</i>	5	1	29	102	37	8

### Ribble Estuary SSSI species

Six species mentioned in citation for the Ribble Estuary SSSI were recorded during the surveys, these were; curlew, lapwing, mallard, oystercatcher, pink-footed goose and teal. Refer to the above sections for 'waders' and 'wildfowl' for detailed descriptions of the species listed in Table 3.9.

## Wintering Bird Survey Report

Table 3.9 Peak counts of Ribble Estuary SSSI qualifying species by visit

Species	Scientific name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6
		Oct	Nov	Dec	Jan	Feb	Mar
Curlew	<i>Numenius arquata</i>	-	-	-	-	1	1
Lapwing	<i>Vanellus vanellus</i>	3	16	-	-	9	1
Mallard	<i>Anas platyrhynchos</i>	17	18	20	30	14	9
Oystercatcher	<i>Haematopus ostralegus</i>	-	-	-	-	-	2
Pink-footed goose	<i>Anser brachyrhynchus</i>	80	-	55	31	-	-
Teal	<i>Anas crecca</i>	5	1	29	102	37	8

### Newton Marsh SSSI species

Four noteworthy species mentioned in citation for the Newton Marsh SSSI were recorded during the surveys, these were lapwing, mallard, teal and snipe. Refer to the above sections of 'waders', 'wildfowl' and 'gulls' for detailed descriptions of the species listed in Table 3.10.

Table 3.10 Peak counts of Newton Marsh SSSI qualifying species by visit

Species	Scientific name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6
		Oct	Nov	Dec	Jan	Feb	Mar
Lapwing	<i>Vanellus vanellus</i>	3	16	-	-	9	1
Mallard	<i>Anas platyrhynchos</i>	17	18	20	30	14	9
Teal	<i>Anas crecca</i>	5	1	29	102	37	8
Snipe	<i>Gallinago gallinago</i>	8	1	-	-	2	2

## 4. Evaluation

A total of 63 bird species were recorded within the survey area including:

- 3 qualifying species for the Ribble and Alt Estuaries SPA;
- 3 qualifying species for the Ribble and Alt Estuaries Ramsar site;
- 6 qualifying species for the Ribble Estuary SSSI;
- 4 qualifying species for the Newton Marsh SSSI;
- 10 species of principal importance (Section 41 listed species);
- 6 Lancashire BAP species;
- 11 Red listed species on the BoCC 4 (2015); and
- 20 species on the Amber List of the BoCC 4: 2015.

The peak counts from the field survey records for species of conservation concern and how they compare to Lancashire's peak wintering bird populations are presented in Appendix J.

Based on the professional judgement of Jacobs ornithologists and following a review of the bird species data for the PWD / EWLR scheme which is adjacent to and within the Cottam Parkway survey area, the utilisation of the survey area specifically as a wintering resource by waders, winter thrushes, gulls, wildfowl and passerines are considered to be normal in the context of the habitats available (intensively managed improved pasture). For further species population levels and distributions refer to White *et al.*, (2013) and Musgrove *et al.*, (2013).

Notably relatively large numbers of species of conservation concern were recorded for redwing, fieldfare, starling, teal and black-headed gull and these are described in more detail below. The bird species using the survey area in relatively large numbers were not considered to be solely reliant on habitats within the survey area or the scheme footprint. These species are likely to roam over a much larger area to utilise other foraging and roosting opportunities (as supported by a review of the PWD / EWLR field survey data (Jacobs, 2017)).

As detailed below, redwing, fieldfare and teal wintering bird populations associated with the survey area are considered to be significant at the **County Level**. With regards to the other species, none of the records are significantly high in relation to their known populations at the **County Level** (according to The State of Lancashire's Birds, White *et al.* 2013), at UK level (Musgrove *et al.*, 2013) or in the context of what would be expected on similar habitats in the local area. This is supported by the review of the PWD / EWLR wintering bird field survey data (Jacobs, 2017). Notable populations of redwing, mallard, starling etc. were recorded and are broadly similar to those recorded during the field surveys conducted for this scheme.

It is acknowledged that pink-footed goose exceed the 1% threshold, as detailed in Bainbridge *et al.* (2013), of the SPA and Ramsar populations respectively. However, due to the transitional nature of the species and that the records were of the species flying over the site and not using the survey area for feeding etc. these are not considered to be significant records. Furthermore, those species listed as an important feature for one of the statutory designated sites detailed in Section 3 are also discussed.

### 4.1 Notable Recordings

#### Black-headed gull

Black-headed gull were recorded throughout the survey area, however on the second visit in November 2019 a total of 101 birds were recorded. Eighty-four birds were the next largest total recorded in January 2020. No black-headed gulls were recorded in March 2020. The vast majority of these were recorded on a grazed grass field to the north of Brylea Caravan Park. According to Musgrove *et al.* (2013) as of 2003/4 – 2005/6 an estimated 2.2 million black-headed gulls reside in the UK during the winter. The survey area comprises 0.004% of this population and 0.34% of Lancashire's estimated wintering population.

### Fieldfare

A peak count of 217 fieldfare were recorded during visit 1 in October 2019. However, the subsequent two visits recorded only 47 and 19 individuals respectively. As for similar species, fieldfare was found to be using the grass fields for feeding, the majority of which were recorded to the south west of the site, immediately adjacent to fields to the north and south of Darkinson Lane. An estimate of 720,00 wintering fieldfare were recorded during the 1981-84 period (Musgrove *et al.*, 2013). The survey area records of fieldfare accounts for 0.03% of the 720,00 UK wintering population and 1.09% of Lancashire's wintering population. The latter exceeds the 1% threshold discussed above, therefore, the fieldfare population associated with the survey area is considered to be of importance at **County Level**.

### Redwing

Redwing were recorded in flocks of varying sizes throughout the survey area on all but the final visit. The peak count for each survey varied from 639 in December 2019 to none in March 2020. The largest flocks were aggregated within grass fields often surrounded by shrubby hedgerows in the south west corner of the survey area. The estimated wintering population of redwing in the UK was 690,000 individuals 1981-1984 (Musgrove *et al.*, 2013), with the survey area supporting <1% of this population i.e. 0.092%. The numbers recorded in the survey area were approximately 5.33% of the estimated wintering population for Lancashire ((see Appendix J (White *et al.*, 2013))) and are considered to be of importance up to **County Level**. The habitat within the survey area where the vast majority of redwing were recorded comprised established hedgerows and grassland which provided both cover and areas to forage for the species. It is also noted that redwing numbers are subject to large annual fluctuations (White *et al.*, 2013).

### Starling

Large numbers of starling were recorded during the third visit in December 2019 with 690 birds being recorded. Numbers varied throughout the six surveys with just a single bird recorded on the March 2020 visit. The habitats within the survey area are considered to be typical of the surrounding area for foraging by this species. Musgrove *et al.* (2013) estimated 1,900,000 starling pairs to be present within the UK as of 2009 and the numbers recorded in the survey area were 0.036% of the estimated UK population and 0.23% of Lancashire's winter population estimates (see Appendix J (White *et al.*, 2013)). The starling population associated with the survey area is considered to be of importance at the **Local** level.

### Teal

During the fourth visit in January, 102 teal were recorded on a single pond to the north of Earl's Farm. Teal were one of the few birds recorded on all six visits. The next largest total was the following month in February where 37 birds were recorded. The total UK wintering population is estimated to be 220,00 individual teal as of 2004/5 – 2008/9 (Musgrove *et al.*, 2013). The survey area comprises 0.046% of this UK population and 1.02% of Lancashire's estimated wintering population ((see Appendix J (White *et al.*, 2013))). Teal are a qualifying species of the SPA and Ramsar; recorded peak counts within the survey area represent 1.33% of the total SPA population (7,641 individuals) and 1.99% of the total Ramsar population (5,107 individuals). Although teal were recorded in much smaller numbers on other ponds, scrapes etc. throughout the survey area on the other five survey visits the maximum count is above the 1% threshold indicating that the winter population of teal associated with the survey area is of importance at **County Level**.

#### 4.1.1 Qualifying species of the Ribble and Alt Estuaries SPA

Three qualifying over-wintering bird species for the Ribble and Alt Estuaries SPA were recorded during the surveys: oystercatcher, pink-footed goose and teal (refer to Table 4.1). Oystercatcher and pink-footed goose occurred in low numbers on predominantly an occasional basis and often flying over the scheme.



## Oystercatcher

Just two oystercatchers were recorded on the final visit in March 2020 which is significantly less than 1% of the UK's (340,000 individuals) and Lancashire's (47,000 individuals) total wintering populations respectively.

## Pink-footed Goose

A flock of 80 geese flew over the survey area during visit 1 in October 2019. Fifty-five and 31 birds were again observed flying in December 2019 and January 2020. No skeins were seen feeding or roosting on the ground. The maximum count observed comprises 0.34% of the SPA winter population and just 0.01% of the estimated total of the UK's over-wintering population which as of 2009 / 10 was 360,000 individuals (Musgrove *et al.*, 2013) and 0.16% of Lancashire's over wintering population of 50,000 individuals ((see Appendix J (White *et al.*, 2013)).

## Teal

Refer to the evaluation of the teal population recorded within the survey discussed in section 4.1 Notable Recordings.

Table 4.1 Qualifying species of the Ribble and Alt Estuaries SPA

Species	Scientific name	Peak count in the survey area	Estimated UK wintering population (unless stated otherwise)	Survey area peak count as a % of UK population	Ribble and Alt Estuaries SPA population	Survey area population as a % of SPA
Oystercatcher	<i>Haematopus ostralegus</i>	2	340,000	<0.01	16,159	0.01%
Pink-footed goose	<i>Anser brachyrhynchus</i>	80	360,000	0.01	23,860	0.34%
Teal	<i>Anas crecca</i>	102	220,000	0.05%	7,641	1.33%

### 4.1.2 Qualifying species of the Ribble and Alt Estuaries Ramsar site

Three species were recorded within the survey area that are qualifying species for the Ribble and Alt Estuaries Ramsar designation. These species are; oystercatcher, pink-footed goose and teal (refer to Table 4.2). Discussion of their percentages to the UK and Lancashire populations has been discussed above so will not be repeated here. However, as for the percentage accounting for the SPA population, oystercatcher recorded within the survey area is less than 0.01% of the total Ramsar population which at its peak during the winter is 18,926. The peak count of 80 pink-footed geese observed flying over the site (and were not using the site for feeding, resting etc.) is 1.22% of the total wintering Ramsar peak count of 6,552. The 102 teal recorded leaving a single pond is 1.99% of the total Ribble and Alt Estuary Ramsar population of 5,107. As discussed above these percentages for pink-footed goose and teal are not thought to be significant.

Table 4.2 Qualifying species for the Ribble and Alt Estuaries Ramsar site

Species	Scientific name	Peak count in the survey area	Estimated UK wintering population (unless stated otherwise)	Survey area peak count as a % of UK population	Ribble and Alt Estuaries Ramsar population	Survey area population as a % of Ramsar
Oystercatcher	<i>Haematopus ostralegus</i>	2	340,000	<0.01	18,926	0.01%



Species	Scientific name	Peak count in the survey area	Estimated UK wintering population (unless stated otherwise)	Survey area peak count as a % of UK population	Ribble and Alt Estuaries Ramsar population	Survey area population as a % of Ramsar
Pink-footed goose	<i>Anser brachyrhynchus</i>	80	360,000	0.01	6,552	1.22%
Teal	<i>Anas crecca</i>	102	220,000	0.05%	5,107	1.99%

## 4.2 Overall Evaluation

The utilisation of the survey area by wintering birds as a foraging and roosting resource is typical in respect to the habitat types found within the survey area i.e. intensively managed agricultural land (improved grassland and arable fields). This is supported following the review of the PWD / EWLR ES (Jacobs, 2017). Generally, numbers of both resident and wintering species recorded throughout the survey period of October 2019 to March 2020 inclusive were not considered to represent a significant proportion of their UK or county populations (refer to White *et al.*, 2013 for further details on species distributions across Lancashire). The exceptions were;

- redwing, where 5.33% of the Lancashire wintering population was recorded during the surveys;
- fieldfare, where 1.09% of Lancashire's wintering population was recorded; and
- teal, where 1.02% of Lancashire's wintering population was recorded, as well as 1.33% of the total SPA population (7,641 individuals) and 1.99% of the total Ramsar population (5,107 individuals).

The three SPA and Ramsar winter qualifying species; oystercatcher (not discussed here due to the very low numbers recorded), pink-footed geese (although only recorded flying over the survey area), and teal which appeared to use the survey area on an occasional basis.

Although the numbers of pink-footed geese recorded during the surveys were above the 1% threshold of the SPA and Ramsar populations, this is not considered to be significant as they were only ever observed flying over and were not observed using the survey area for foraging or roosting.

With regards to the large number (102) of teal recorded during the fourth visit in January, this is likely due to the highly transitory nature of migratory species such as teal (Drewitt *et al.*, 2015, White *et al.*, 2013). Numbers recorded in December and February were significantly less than the January total and even less in the remaining three surveys. However, the January total indicates that the wintering teal population associated with the survey area is of importance at **County Level**.

Furthermore, the other wader, wildfowl, gulls, passerines and other species of conservation concern are likely to utilise additional habitats outside the survey area for foraging and roosting and are not reliant on those habitats within the survey area (as supported by the assessments made in the PWD / EWLR Environmental Statement (Jacobs, 2017). However, the larger numbers for redwing and fieldfare (and teal discussed above) have been noted to be of importance at **County Level**.

Overall, 63 bird species were recorded within the survey area. This included 31 species of conservation concern. In general, the number of birds recorded for each species were not considered to represent a significant proportion of the UK or local population and / or were considered to be using the survey area on an occasional and transitory basis. The bird species recorded within the survey area are therefore considered to be a typical assemblage for the county and local area given the habitats present (refer to wintering bird population estimates in Appendix J). Overall, wintering birds within the survey area are therefore considered to be of importance at **County Level (due to recorded numbers of redwing, fieldfare and teal)**.

A robust assessment of the potential effects on wintering birds associated with the scheme is detailed within the Ecology Chapter of the Environmental Statement, along with any prescribed mitigation and compensation measures, opportunities for enhancement, requirements for pre and / or post construction monitoring and an assessment of residual impacts (where appropriate).

Given the possibility of future changes in wintering bird distribution within the survey area (including presence at locations where wintering birds have not been recorded to date), due consideration will be given to the potential presence of wintering birds across the survey area, both prior to construction and in the longer term.

## 5. References

Bainbridge, I., Brown, A., Burnett, N., Corbett, P., Cork, C., Ferris, R., Howe, M., Maddock, A., Mountford, E. and Pritchard, S. 2013. *Guidelines for the Selection of Biological SSSIs. Part 1: Rationale, Operational Approach and Criteria for Site Selection*. Joint Nature Conservation Committee, Peterborough.

CIEEM. 2018. *Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland: Terrestrial, Freshwater Coastal and Marine* version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.

Drewitt, A.L., Whitehead, S. and Cohen, S. 2015. Guidelines for the Selection of Biological SSSIs. Part 2: Detailed Guidelines for Habitats and Species Groups. Chapter 17 Birds. Joint Nature Conservation Committee, Peterborough.

Eaton, M.A., Aebischer, N.J., Brown, A.F., Hearn, R., Lock, L., Musgrove, A.J., Noble, D.G., Stroud, D.A. and Gregory, R.D. 2015. Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. *British Birds* 108, pp708-746296–341.

Gilbert G., Gibbons D.W., and Evans J. 1998. *Bird Monitoring Methods*. RSPB

Gillings, S., Wilson, A.M., Conway, G.J., Vickery, J.A., Fuller, R.J., Beavan, P., Newson, S.E., Noble, D.G., Toms, M.P., 2008. *Winter Farmland Bird Survey, British Trust for Ornithology*. The Nunnery, Thetford, Norfolk, IP24 2PU, UK

Highways England. 2020. LA108 Biodiversity: (formerly Volume 11, Section 3, Part 4 Ecology and Nature Conservation and IAN 130/10)

Jacobs (2017) *Preston Western Distributor and East West Link Road Environmental Statement*. Chapter 6, Volume 2. For Lancashire County Council.

Musgrove, A., Aebischer, N., Eaton, M., Hear, R., Newson, S., Noble, D., Parsons, M., Risley, K., and Stroud, D., 2013. Population Estimates of birds in Great Britain and the United Kingdom 2013. *British Birds*, 106, 64-100.

White, S., McCarthy, B., Dunstan, S., Martin, S., Harris, B., Hulme, G., and Marsh, P., 2013. *The State of Lancashire's Birds: An Atlas of the Breeding and Wintering Birds of Lancashire and North Merseyside, 2007-2011*. Lancashire and Cheshire Fauna Society.

### Websites

Google Maps, 2019 (<https://www.google.com/maps>). [accessed October 2019]

JNCC, 2020. Special Protection Areas – overview <http://jncc.defra.gov.uk/page-1405#s1> [accessed 1st April 2020]

MAGIC, 2019. <https://magic.defra.gov.uk/> [accessed October 2019]

Natural England 2019. Irish Sea marine area site packages <https://www.gov.uk/government/publications/irish-sea-marine-area-index-map-and-site-packages> [accessed 1st April 2020]

RSPB, Wildlife Trust for Lancashire, Manchester & North Merseyside, Lancashire County Council, Natural England and the Merseyside Environmental Advisory Service 2008. Biomass planting and Sensitive Bird Populations: A Spatial Planning Guide for biomass energy crop planting in North West England <http://programmeofficers.co.uk/Preston/CoreDocuments/LCC353.pdf> [accessed 1st April 2020]

## **Appendix A. Figures**

Figure 1 - Wintering Bird Survey Area

Figure 2 – Statutory Designated Sites of Relevance to Wintering Birds

Figure 3 – Wintering Bird Survey Results Visit 1 (31/10/2019)

Figure 4 – Wintering Bird Survey Results Visit 2 (15/11/2019)

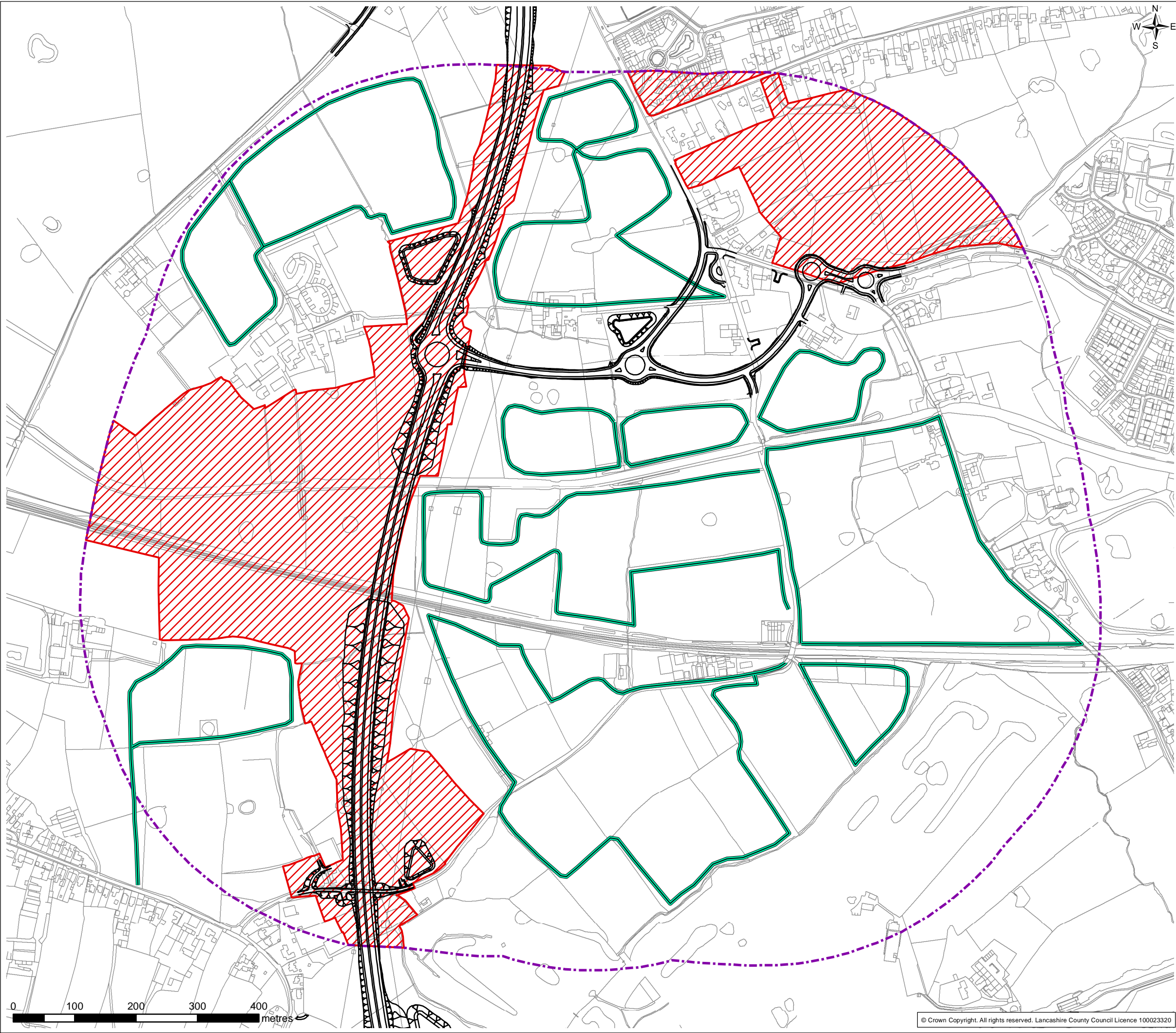
Figure 5 – Wintering Bird Survey Results Visit 3 (19/12/2019)

Figure 6 – Wintering Bird Survey Results Visit 4 (24/01/2020)

Figure 7 – Wintering Bird Survey Results Visit 5 (26/02/2020)

Figure 8 – Wintering Bird Survey Results Visit 6 (20/03/2020)





\\GBMNC\0501\gis\B2327FEA\_LCC\_Cottam\_Parkway\ArcGIS\B2327FEA\_EC\_01\_Wintering\_Bird\_Study\_Area.mxd

© Crown Copyright. All rights reserved. Lancashire County Council Licence 100023320

FIGURE 1

- Legend
- 500m Survey Area and Buffer from Known Site Area (October 2019)
  - Wintering Bird Survey Transect
  - PWD Scheme
  - Exclusion Area October 2019



1	16/06/2020	Update for report	GS	SM	KL	PH
0	30/04/2020	Initial Issue	RW	SM	KL	PH
Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	App'd

**JACOBS**  
5 First Street, Manchester, M15 4GU, UK  
Tel: +44(0)161 235 6000 Fax: +44(0)161 235 6001  
www.jacobs.com

Client  
**Lancashire**  
County Council

Project  
Cottam Parkway

Drawing Title  
WINTERING BIRD SURVEY AREA

Scale @ A3	1:6,000	DO NOT SCALE
Jacobs No.	B2327FEA	

B2327FEA\_EC\_01\_Wintering\_Bird\_Study\_Area

This drawing is not to be used in whole in or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.



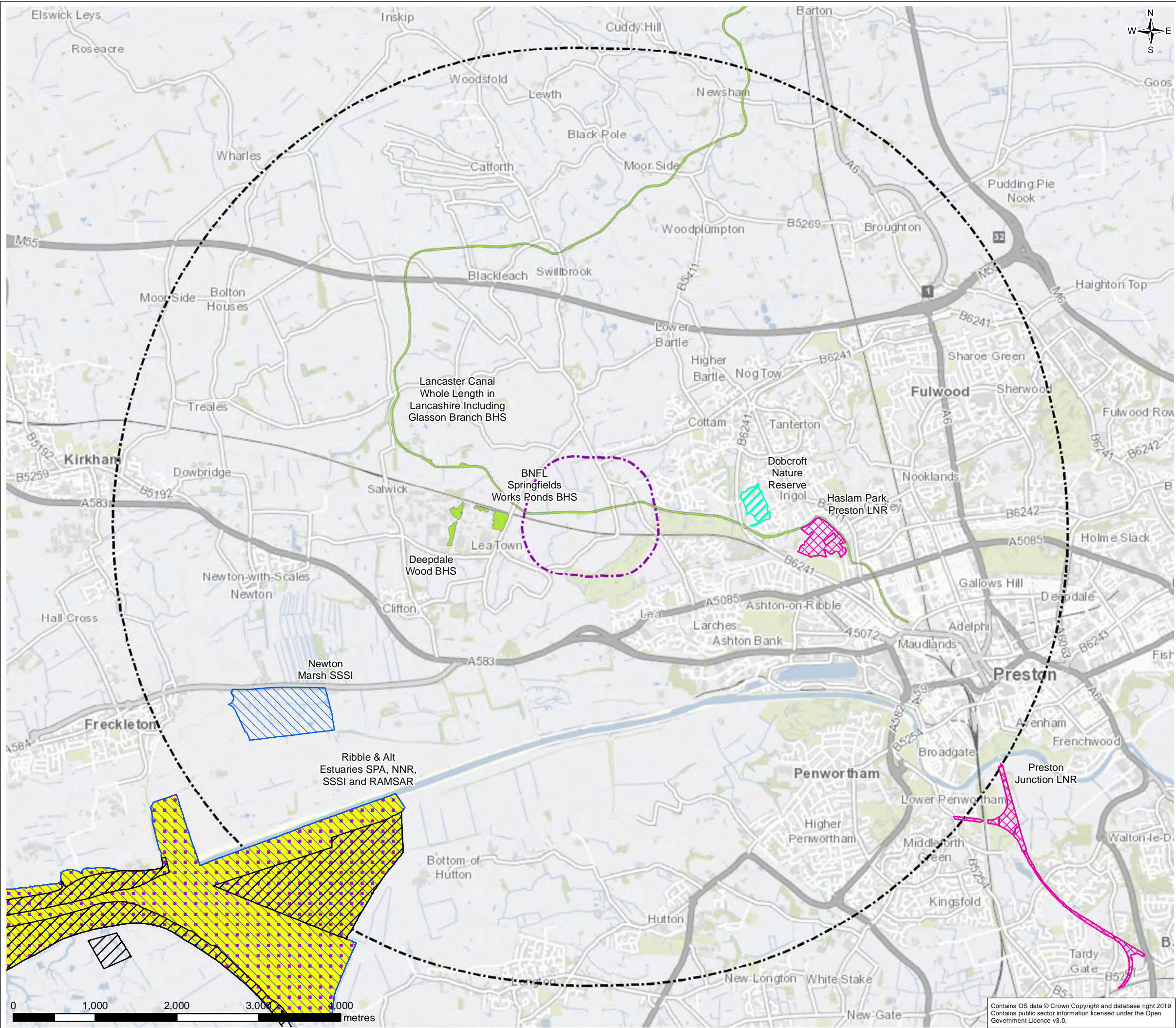
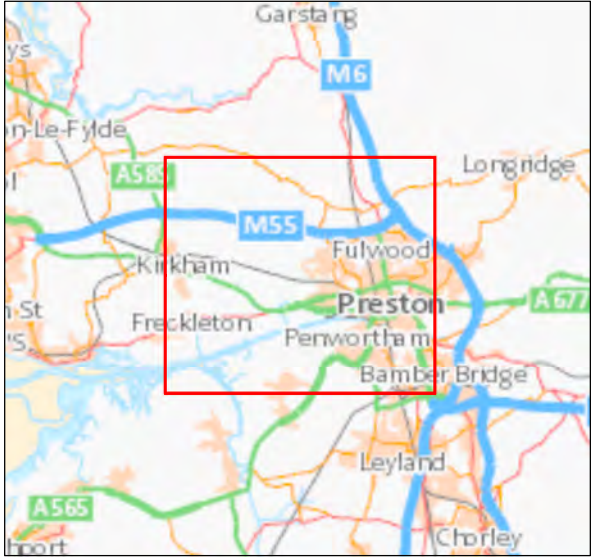


FIGURE 2

- Legend
- 500m Survey Area and Buffer from Known Site (October 2019)
  - 5km Buffer from October 2019 Site Area
  - Statutory Designated Sites**
    - Special Protection Area (SPA)
    - Ramsar
    - Site of Special Scientific Interest (SSSI)
    - Local Nature Reserve (LNR)
    - National Nature Reserve (NNR)
  - Non-statutory Designated Sites**
    - Biological Heritage Sites
    - Non-statutory Nature Reserve



1	20/08/2020	Update for report	GS	SM	KL	PH
0	30/04/2020	Initial Issue	RW	SM	KL	PH
Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	App'd

**JACOBS**  
5 First Street, Manchester, M15 4GU, UK  
Tel: +44(0)161 235 6000 Fax: +44(0)161 235 6001  
www.jacobs.com

**Lancashire**  
County Council

Cottam Parkway

STATUTORY AND NON-STATUTORY DESIGNATED SITES  
(OF POTENTIAL RELEVANCE FOR WINTERING BIRDS)

Scale @ A3	1:45,000	DO NOT SCALE
Jacobs No.	B2327FEA	

B2327FEA\_EC\_02\_Statutory\_Designated\_Sites

This drawing is not to be used in whole in or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.















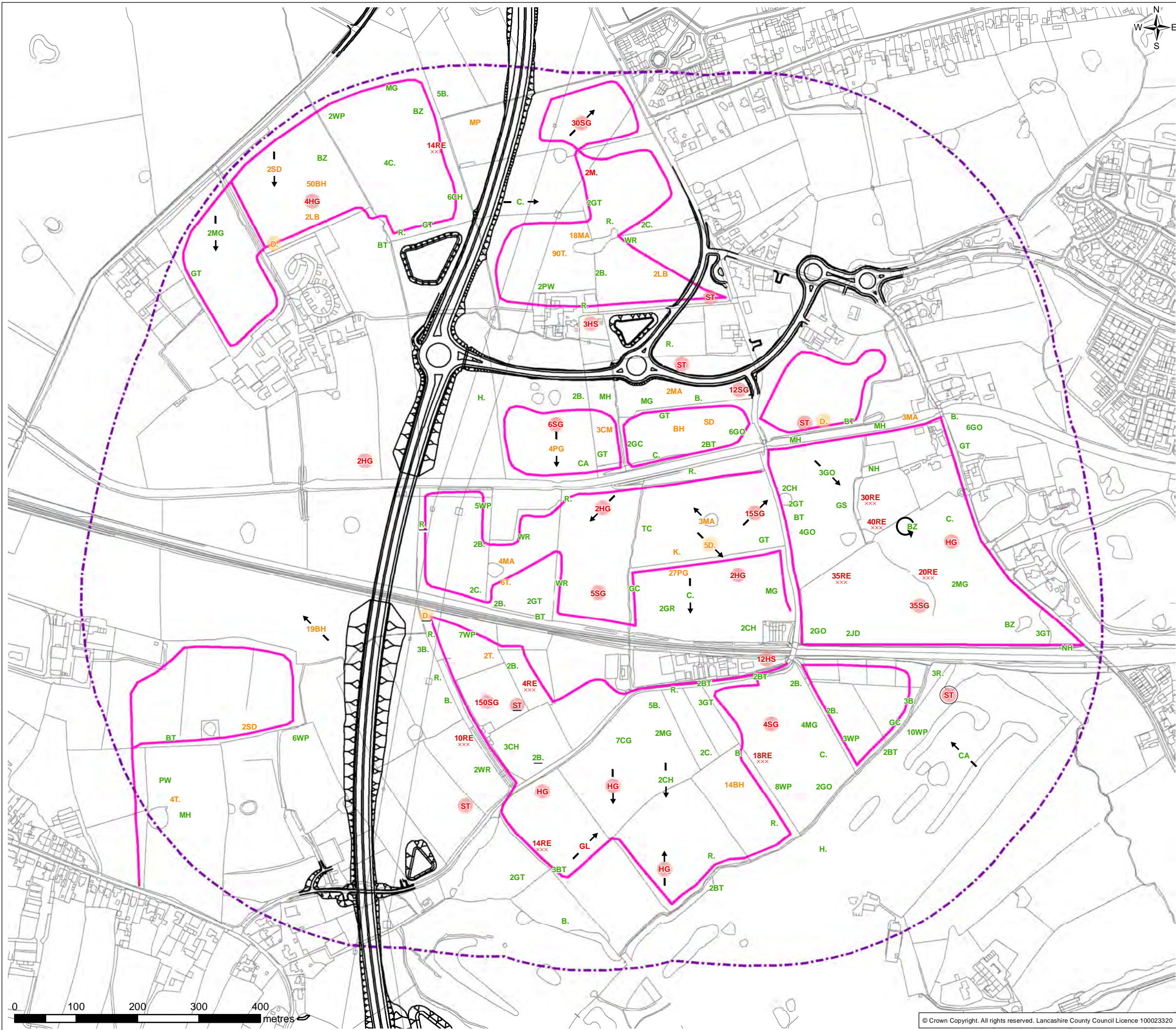


FIGURE 6

**Legend**

— PWD Route

500m Survey Area and Buffer from Known Site Area (October 2019)

Transect Route

**Wintering Bird Survey Results - Species**

<sup>n</sup> Number of birds recorded

XX Amber List Species (medium conservation concern)

XX Amber List Species (medium conservation concern). Species listed on Schedule 1 of Wildlife and Countryside Act 1981

XX Amber List Species (medium conservation concern). Species of Principal Importance

XX Green List Species

XX Red List Species (high conservation concern)

XX Red List Species (high conservation concern). Species listed on Schedule 1 of Wildlife and Countryside Act 1981

XX Red List Species (high conservation concern). Species of Principal Importance

**Wintering Bird Survey Results - Behaviour**

X A - Agitated

X→ F - Flying (Away)

↻ F - Flying (Circling)

→X F - Flying (in and Landing)

→X F - Flying (Over)

X H - Calling/feeding in suitable habitat

(X) S - Singing Male

Please refer to Appendix D in the report for BTO species codes.



1	16/06/2020	Update for report	GS	SM	KL	PH
0	30/04/2020	Initial Issue	RW	SM	KL	PH
Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	App'd

**JACOBS**

5 First Street, Manchester, M15 4GU, UK  
Tel: +44(0)161 235 6000 Fax: +44(0)161 235 6001  
www.jacobs.com



Cottam Parkway

WINTERING BIRD SURVEY RESULTS  
VISIT 4 (24/01/2020)

Scale @ A3	1:6,000	DO NOT SCALE
Jacobs No.	B2327FEA	

B2327FEA\_EC\_06\_WBSR\_Visit\_4

This drawing is not to be used in whole in or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.



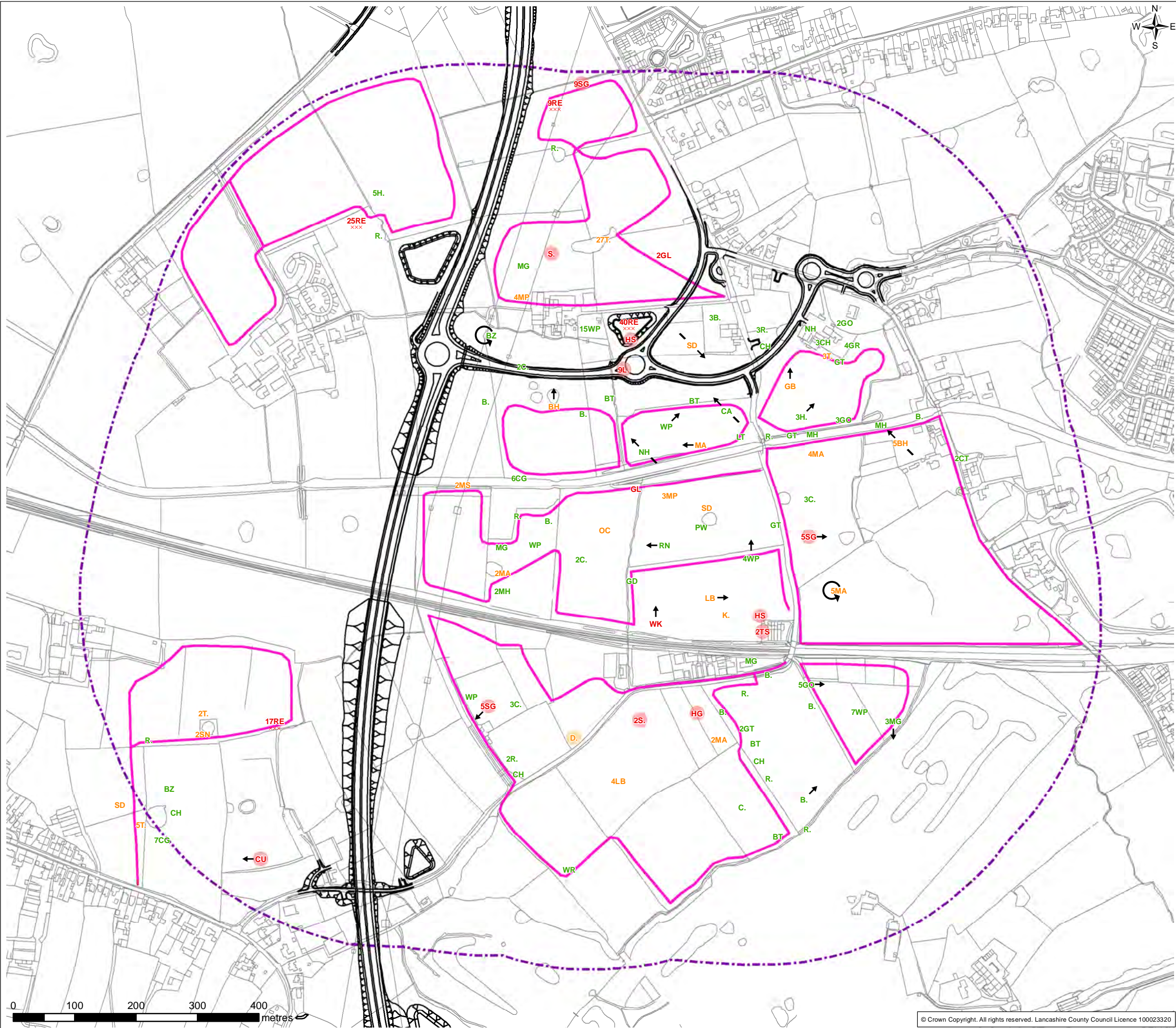


FIGURE 7

**Legend**

— PWD Route

500m Survey Area and Buffer from Known Site Area (October 2019)

Transect Route

**Wintering Bird Survey Results - Species**

Number of birds recorded

Amber List Species (medium conservation concern)

Amber List Species (medium conservation concern). Species listed on Schedule 1 of Wildlife and Countryside Act 1981

Amber List Species (medium conservation concern). Species of Principal Importance

Green List Species

Red List Species (high conservation concern)

Red List Species (high conservation concern). Species listed on Schedule 1 of Wildlife and Countryside Act 1981

Red List Species (high conservation concern). Species of Principal Importance

**Wintering Bird Survey Results - Behaviour**

A - Agitated

F - Flying (Away)

F - Flying (Circling)

F - Flying (in and Landing)

F - Flying (Over)

H - Calling/feeding in suitable habitat

S - Singing Male


Please refer to Appendix D in the report for BTO species codes.



1	16/06/2020	Update for report	GS	SM	KL	PH
0	30/04/2020	Initial Issue	RW	SM	KL	PH
Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	App'd

**JACOBS**  
5 First Street, Manchester, M15 4GU, UK  
Tel: +44(0)161 235 6000 Fax: +44(0)161 235 6001  
www.jacobs.com



Client			
Project	Cottam Parkway		
Drawing Title	WINTERING BIRD SURVEY RESULTS VISIT 5 (26/02/2020)		
Scale @ A3	1:6,000	DO NOT SCALE	
Jacobs No.	B2327FEA		
B2327FEA_EC_07_WBSR_Visit_5			
This drawing is not to be used in whole in or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.			







## Appendix B. Legislation, Planning Policy and Biodiversity Background

### The Birds Directive

Many bird populations within the UK, including those that are resident, over wintering and migratory are protected under European legislation.

The EC Directive on the conservation of wild birds 2009/147/EC (as amended) (the 'Birds Directive') requires the designation of Special Protection Areas (SPAs) for rare or vulnerable species, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance. Annex I of the Directive lists bird species to be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.

The Conservation of Habitats and Species Regulations 2017 (as amended) place additional duties on competent authorities (including Local Authorities and National Park Authorities) in relation to wild bird habitat. These provisions relate back to Articles 1, 2 and 3 of the Birds Directive (Regulation 10(1) & (3) requires that 'in the exercise of their functions as they consider appropriate' these authorities must take steps to contribute to the 'preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat...').

### The Bonn Convention

The Bonn Convention on Conservation of Migratory Species of Wild Animals, 1979, aims to achieve effective management of migratory species across national or jurisdictional boundaries. It is implemented in the UK by the Environmental Protection Act 1990.

### The Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) (WCA) is the principal mechanism for the legislative protection of wildlife in Great Britain.

All bird species are protected under elements of Section 1 of the WCA, with special provision for species listed on Schedule 1. Under the WCA it is an offence if:

- any person intentionally—
  - kills, injures or takes any wild bird;
  - takes, damages or destroys the nest of a wild bird included in Schedule ZA1;
  - takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
  - takes or destroys an egg of any wild bird
- any person has in his possession or control—
  - any live or dead wild bird or any part of, or anything derived from, such a bird; or
  - an egg of a wild bird or any part of such an egg.
- any person intentionally or recklessly—
  - disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or
  - disturbs dependent young of such a bird.

**Conservation status - Birds of Conservation Concern (Eaton *et al.*, 2015)**

The UK's leading bird conservation organisations have worked together on the third quantitative review of the status of the birds that occur regularly in the UK, updating the last review in 2009. The status of birds within the UK have been regularly monitored through a series of surveys, including the national Breeding Bird Survey, Common Bird Census, sea bird monitoring programs and wetland monitoring programs. The result of this review and continued monitoring is The Population Status of Birds in the UK, Birds of Conservation Concern 4: 2015.

Birds are assessed against criteria to place each species on one of three alert lists, red, amber or green. Red list species are considered to be of high conservation concern, being either globally threatened, having historical UK population declines, having a rapid population decline or breeding range contraction of 50% or more in the last 25-years.

Amber list species are considered to be of medium conservation concern as they meet one or more of the following criteria (but none of the red list criteria): Red listed for historical decline in a previous review but with substantial recent recovery (more than doubled in the last 25-years), a UK breeding range contraction of between 25% and 49%, a reduction of breeding or non-breeding population of 25-49% in the last 25-years, a 5-year mean of 1-300 breeding pairs in the UK, an unfavourable European conservation status, at least 50% of the UK breeding population found in 10 or fewer sites, or where the breeding population in the UK represents 20% or more of the European breeding populations.

Green list species are considered to be of low conservation concern. They include all regularly occurring species that do not qualify under any of the red or amber criteria. The green list also includes those species listed as recovering from Historical Decline in the last review that have continued to recover and do not qualify under any of the other criteria.

### **National Planning Policy Framework 2019 (NPPF)**

National Planning Policy Framework 2019 and Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, places a duty on all public bodies including local planning authorities to consider habitats and species of principal importance when considering a planning application.

It is recognised by the NPPF that the planning system should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes, recognising the benefits of ecosystem services, minimising impacts on biodiversity and providing net gain where possible by establishing coherent and resilient wildlife networks.

### **Section 41 of the NERC Act 2006 – Habitats and Species of Principal Importance in England**

The England Biodiversity List has been developed to meet the requirements of Section 41 of the NERC Act (2006). This legislation requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity.

The Section 41 list will be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the NERC Act 2006 "to have regard" to the conservation of biodiversity in England, when carrying out their normal functions. In particular:

- National Planning Bodies and Local Planning Authorities will use it to identify the species and habitats that should be afforded priority when applying the requirements of the NPPF to maintain, restore and enhance species and habitats.
- Local Planning Authorities will use it to identify the species and habitats that require specific consideration in dealing with planning and development control, recognising that under NPPF the aim of planning decisions should be to avoid harm to all biodiversity.

- All Public Bodies will use it to identify species or habitats that should be given priority when implementing the NERC Section 40 duty.

### **Lancashire Biodiversity Action Plan (BAP)**

The UK BAP was published in January 1994 in response to the Convention on Biological Diversity which was signed by the UK at the 1992 Rio Earth Summit. In common with much of the rest of the country, the biodiversity of Lancashire has undergone a significant decline. Large tracts of the County have now lost much of their former interest, what remains tends to be concentrated on relict habitats which are often fragmented. The conservation of these areas is frequently best achieved by their identification as statutory or non-statutory wildlife site which should receive appropriate management. These sites are seen as key features in the delivery of biodiversity objectives. Lancashire County Council is one of the organisations playing a key role in the development and implementation of the local BAP for Lancashire.

## Appendix C. Jacobs Field Survey Metadata

Visit number	Date	Time (Start - Finish)	Observers	Cloud cover (oktas)	Wind direction	Wind speed (beaufort scale)	Temperature (°C)	Precipitation
1	31 <sup>st</sup> October 2019	07:45 – 12:45	Stuart Macpherson and Ryan Knight	0/8	N	1	4	None
2	15 <sup>th</sup> November 2019	08:30 – 13:00	Stuart Macpherson and Ryan Knight	4/8	-	0	6	None
3	19 <sup>th</sup> December 2019	08:30 – 13:30	Stuart Macpherson and Ryan Knight	4/8	-	0	9	None
4	24 <sup>th</sup> January 2020	08:45 – 13:15	Stuart Macpherson and Ryan Knight	8/8	-	0	8	None
5	26 <sup>th</sup> February 2020	10:00 – 15:00	Ryan Knight and Huw Morgan	3/8	NW	3	5	Light rain and hail showers
6	20 <sup>th</sup> March 2020	08:00 – 13:45	Ryan Knight and Robyn Walton	3/8	SW	2	10	None



## Appendix D. BTO Bird Species Codes

BTO Species Codes					
AC	Arctic Skua	G.	Green Woodpecker	NK	Red-necked Phalarope
AE	Arctic Tern	GR	Greenfinch	RH	Red-throated Diver
AV	Avocet	GK	Greenshank	LR	Redpoll
BY	Barnacle Goose	H.	Grey Heron	RK	Redshank
BO	Barn Owl	GJ	Greylag Goose	RT	Redstart
BA	Bar-tailed Godwit	P.	Grey Partridge	RE	Redwing
BR	Bearded Tit	GV	Grey Plover	RB	Reed Bunting
BS	Bewick's Swan	GL	Grey Wagtail	RW	Reed Warbler
BI	Battens	GU	Guillemot	RZ	Ring Ouzel
BK	Black Grouse	HF	Hawfinch	RI	Ring-necked Parakeet
BH	Black-headed Gull	HH	Hen Harrier	RP	Ringed Plover
BW	Black-tailed Godwit	HG	Herring Gull	R.	Robin
DV	Black-throated Diver	HY	Hobby	DV	Rock Dove
BX	Black Redstart	HZ	Honey Buzzard	RC	Rock Pipit
B.	Blackbird	HC	Hooded Crow	RO	Rook
BC	Blackcap	HP	Hoopoe	RS	Roseate Tern
TY	Black Guillemot	HM	House Martin	RY	Ruddy Duck
BN	Black-necked Grebe	HS	House Sparrow	RU	Ruff
BJ	Black Tern	JD	Jackdaw	SM	Sand Martin
BU	Bluethroat	J.	Jay	SS	Sanderling
BT	Blue Tit	K.	Kestrel	TE	Sandwich Tern
BL	Brambling	KF	Kingfisher	VI	Savi's Warbler
BG	Brent Goose	KI	Kittiwake	SQ	Scarlet Rosefinch
BF	Bullfinch	KN	Knot	SP	Scaup
BZ	Buzzard	LM	Lady Amherst's Pheasant	CY	Scottish Crossbill
C.	Carrion Crow	LA	Lapland Bunting	SW	Sedge Warbler
CG	Canada Goose	L.	Lapwing	NS	Serin
CP	Capercaillie	TL	Leach's Petrel	SA	Shag
CW	Cetti's Warbler	LB	Lesser Black-backed Gull	SU	Shelduck
CH	Chaffinch	IS	Lesser Spotted Woodpecker	SX	Shorelark
CC	Chiffchaff	LW	Lesser Whitethroat	SF	Short-eared Owl
CL	Chough	LI	Linnet	SV	Shoveler
CL	Cirl Bunting	ET	Little Egret	SK	Siskin
CT	Coat Tit	LG	Little Grebe	S.	Skylark
CD	Collared Dove	LU	Little Gull	SZ	Slavonian Grebe
CM	Common Gull	LO	Little Owl	SN	Snipe
CS	Common Sandpiper	LP	Little Ringed Plover	SB	Snow Bunting
CX	Common Scoter	AF	Little Tern	ST	Song Thrush
CN	Common Tern	LE	Long-eared Owl	SH	Sparrowhawk
CE	Corncrake	IT	Long-tailed Tit	AK	Spotted Crane
CO	Coot	MG	Magpie	SF	Spotted Flycatcher
CA	Cormorant	MA	Mallard	SG	Starling
CB	Corn Bunting	MN	Mandarin	SD	Stock Dove
CT	Crested Tit	MX	Manx Shearwater	SC	Stonechat
CR	Crossbill	MR	Marsh Harrier	TN	Stone-curlew
CK	Cuckoo	MT	Marsh Tit	TM	Storm Petrel

## Wintering Bird Survey Report

BTO Species Codes					
CU	Curlew	MW	Marsh Warbler	SL	Swallow
DW	Dartford Warbler	MP	Meadow Pipit	SI	Swift
DI	Dipper	MU	Mediterranean Gull	TO	Tawny Owl
DO	Dotterel	ML	Merlin	T.	Teal
DN	Dunlin	M.	Mistle Thrush	TK	Temminck's Stint
D.	Dunnock	MH	Moorhen	TP	Tree Pipit
EG	Egyptian Goose	MO	Montagu's Harrier	TS	Tree Sparrow
E.	Eider	MS	Mute Swan	TC	Treecreeper
FP	Feral Pigeon	N.	Nightingale	TU	Tufted Duck
FF	Fieldfare	NJ	Nightjar	TT	Turnstone
FC	Firecrest	NH	Nuthatch	TD	Turtle Dove
F.	Fulmar	OP	Osprey	TW	Twite
GA	Gadwall	OC	Oystercatcher	WA	Water Rail
GX	Gannet	PE	Peregrine	W.	Wheatear
GW	Garden Warbler	PH	Pheasant	WM	Whimbrel
GY	Garganey	PF	Pied Flycatcher	WC	Whinchat
GC	Goldcrest	Par	Pied Wagtail	WO	White-fronted Goose
EA	Golden Eagle	PT	Pintail	WH	Whitethroat
OL	Golden Oriole	PO	Pochard	WS	Whooper Swan
GF	Golden Pheasant	PG	Pink-footed Goose	WN	Wigeon
GP	Golden Plover	PM	Ptarmigan	WT	Willow Tit
GN	Goldeneye	PU	Puffin	WW	Willow Warbler
GO	Goldfinch	PS	Purple Sandpiper	WO	Wood Warbler
GD	Goosander	Q.	Quail	WK	Woodcock
GI	Goshawk	RN	Raven	WL	Woodlark
GH	Grasshopper Warbler	RA	Razorbill	WP	Woodpigeon
GB	Great Black-backed Gull	RG	Red Grouse	OD	Wood Sandpiper
GG	Great Crested Grebe	ED	Red-backed Shrike	WR	Wren
ND	Great Northern Diver	RM	Red-breasted Merganser	WY	Wryneck
GS	Great Spotted Woodpecker	RQ	Red-crested Pochard	YW	Yellow Wagtail
NX	Great Skua	FV	Red-footed Falcon	Y.	Yellowhammer
GT	Great Tit	KT	Red Kite		
GE	Green Sandpiper	RL	Red-legged Partridge		

## Appendix E. Ribble and Alt Estuaries Special Protection Area (SPA) Qualifying Species Information

Council Directive 79/409/EEC has been codified (*i.e.* superseded) by Council Directive 2009/147/EC. However, the Ribble and Alt Estuaries SPA designations have not been updated since the new Directive was adopted; consequently, this citation makes reference to Council Directive 79/409/EEC in relation to SPA qualifying criteria.

**This site also qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the directive:**

Over winter:

Bar-tailed Godwit (*Limosa lapponica*), 18,958 individuals representing at least 35.8% of the wintering population in Great Britain (5-year peak mean 1991/2 - 1995/6).

Bewick's Swan (*Cygnus columbianus bewickii*), 229 individuals representing at least 3.3% of the wintering population in Great Britain (5-year peak mean 1991/2 - 1995/6).

Golden Plover (*Pluvialis apricaria*), 4,277 individuals representing at least 1.7% of the wintering population in Great Britain (5-year peak mean 1991/2 - 1995/6).

Whooper Swan (*Cygnus cygnus*), 159 individuals representing at least 2.9% of the wintering population in Great Britain (5-year peak mean 1991/2 - 1995/6).

**This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:**

On passage:

Ringed Plover (*Charadrius hiaticula*), 995 individuals representing at least 2.0% of the Europe/Northern Africa - wintering population (5-year peak mean 1991/2 - 1995/6).

Sanderling (*Calidris alba*), 6,172 individuals representing at least 6.2% of the Eastern Atlantic/Western & Southern Africa - wintering population (3 year mean May 1993 - 1995).

Over winter:

Black-tailed Godwit (*Limosa limosa islandica*), 819 individuals representing at least 1.2% of the wintering Iceland - breeding population (5-year peak mean 1991/2 - 1995/6).

Dunlin (*Calidris alpina alpina*), 39,952 individuals representing at least 2.9% of the wintering Northern Siberia/Europe/Western Africa population (5-year peak mean 1991/2 - 1995/6).

Grey Plover (*Pluvialis squatarola*), 6,073 individuals representing at least 4.0% of the wintering Eastern Atlantic - wintering population (5-year peak mean 1991/2 - 1995/6).

Knot (*Calidris canutus*), 57,865 individuals representing at least 16.5% of the wintering Northeastern Canada/Greenland/Iceland/Northwestern Europe population (5-year peak mean 1991/2 - 1995/6).

Oystercatcher (*Haematopus ostralegus*), 16,159 individuals representing at least 1.8% of the wintering Europe & Northern/Western Africa population (5-year peak mean 1991/2 - 1995/6).

Pink-footed Goose (*Anser brachyrhynchus*), 23,860 individuals representing at least 10.6% of the wintering Eastern Greenland/Iceland/UK population (5-year peak mean 1991/2 - 1995/6).

Pintail (*Anas acuta*), 3,333 individuals representing at least 5.6% of the wintering Northwestern Europe population (5-year peak mean 1991/2 - 1995/6).

Redshank (*Tringa tetanus*), 2,708 individuals representing at least 1.8% of the wintering Eastern Atlantic - wintering population (5-year peak mean 1991/2 - 1995/6).

Sanderling (*Calidris alba*), 2,859 individuals representing at least 2.9% of the wintering Eastern Atlantic/Western & Southern Africa - wintering population (5-year peak mean 1991/2 - 1995/6).

Shelduck (*Tadorna tadorna*), 4,103 individuals representing at least 1.4% of the wintering Northwestern Europe population (5-year peak mean 1991/2 - 1995/6).

Teal (*Anas crecca*), 7,641 individuals representing at least 1.9% of the wintering Northwestern Europe population (5-year peak mean 1991/2 - 1995/6).

Wigeon (*Anas penelope*), 84,699 individuals representing at least 6.8% of the wintering Western Siberia/Northwestern/Northeastern Europe population (5-year peak mean 1991/2 - 1995/6).

### **Assemblage qualification: A wetland of international importance.**

The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl.

Over winter, the area regularly supports 301,449 individual waterfowl (5-year peak mean 1991/2 - 1995/6) including the following notable species (species which qualify individually are considered above): grey plover, whooper swan, golden plover, bar-tailed godwit, pink-footed goose, shelduck, wigeon, teal, Bewick's swan, oystercatcher, curlew, knot, sanderling, dunlin, black-tailed godwit, redshank, cormorant (*Phalacrocorax carbo*), common scoter (*Melanitta nigra*), lapwing (*Vanellus vanellus*) and pintail.

The selection process is in two stages which are given as follows:

#### **Stage 1**

An area is used regularly by 1% or more of the Great Britain (or in Northern Ireland, the all-Ireland) population of a species listed in Annex I of the Birds Directive (79/409/EEC as amended) in any season.

1. An area is used regularly by 1% or more of the biogeographical population of a regularly occurring migratory species (other than those listed in Annex I) in any season.
2. An area is used regularly by over 20,000 waterfowl (waterfowl as defined by the Ramsar Convention) or 20,000 seabirds in any season.
3. An area which meets the requirements of one or more of the Stage 2 guidelines in any season, where the application of Stage 1 guidelines 1, 2 or 3 for a species does not identify an adequate suite of most suitable sites for the conservation of that species.

#### **Stage 2**

1. *Population size and density*

Areas holding or supporting more birds than others and/or holding or supporting birds at higher concentrations are favoured for selection.

2. *Species range*

Areas selected for a given species provide as wide a geographic coverage across the species' range as possible.

3. *Breeding success*

Areas of higher breeding success than others are favoured for selection.

4. *History of occupancy*

Areas known to have a longer history of occupation or use by the relevant species are favoured for selection.

5. *Multi-species areas*

Areas holding or supporting the larger number of qualifying species under Article 4 of the Directive are favoured for selection.

6. *Naturalness*

Areas comprising natural or semi-natural habitats are favoured for selection over those which do not.

7. *Severe weather refuges*

Areas used at least once a decade by significant proportions of the biogeographical population of a species in periods of severe weather in any season, and which are vital to the survival of a viable population, are favoured for selection.

## Appendix F. Ribble and Alt Estuary Ramsar Qualifying Species Information

### Ramsar criterion 5

#### Species with peak counts in winter:

222,038 waterfowl (5-year peak mean 1998/99-2002/2003).

### Ramsar criterion 6 – species/populations occurring at levels of international importance

#### Species with peak counts in winter:

Qualifying bird species	Species population information
Tundra swan ( <i>Cygnus columbianus bewickii</i> ) NW Europe	230 individuals, representing an average of 2.8% of the GB population (5-year peak mean 1998/9-2002/3)
Whooper swan ( <i>Cygnus cygnus</i> ) Iceland/UK/Ireland	211 individuals, representing an average of 1% of the population (5-year peak mean 1998/9-2002/3)
Pink-footed goose ( <i>Anser brachyrhynchus</i> ) Greenland, Iceland/UK	6552 individuals, representing an average of 2.7% of the population (5-year peak mean 1998/9-2002/3)
Common shelduck ( <i>Tadorna tadorna</i> ) NW Europe	2944 individuals, representing an average of 3.7% of the GB population (5-year peak mean 1998/9-2002/3)
Eurasian wigeon ( <i>Anas penelope</i> ) NW Europe	69841 individuals, representing an average of 4.6% of the population (5-year peak mean 1998/9-2002/3)
Eurasian teal ( <i>Anas crecca</i> ) NW Europe	5107 individuals, representing an average of 1.2% of the population (5-year peak mean 1998/9-2002/3)
Northern pintail ( <i>Anas acuta</i> ) NW Europe	1497 individuals, representing an average of 2.4% of the population (5-year peak mean 1998/9-2002/3)
Eurasian oystercatcher ( <i>Haematopus ostralegus ostralegus</i> ) Europe & NW Africa - wintering.	18926 individuals, representing an average of 1.8% of the population (5-year peak mean 1998/9-2002/3)
Bar-tailed godwit ( <i>Limosa lapponica lapponica</i> ) W Palearctic	13935 individuals, representing an average of 11.6% of the population (5-year peak mean 1998/9-2002/3)

## Appendix G. Ribble Estuary Site of Special Scientific Interest (SSSI) Information

**COUNTY:** LANCASHIRE & MERSEYSIDE

**SITE NAME:** RIBBLE ESTUARY

**DISTRICT:** FYLDE, SEFTON METROPOLITAN, SOUTH RIBBLE AND WEST LANCASHIRE

**Status:** SSSI notified under Section 28 of the Wildlife and Countryside Act 1981. Includes the Ribble Estuary National Nature Reserve declared under Section 19 of the National Parks and Access to the Countryside Act 1949.

**Local Planning Authority:** Fylde Borough Council, Sefton Metropolitan Borough Council, South Ribble Borough Council, West Lancashire Borough Council.

**National Grid Reference:** SD 375240

**Area:** 9226.3 (ha.) 22798.2 (ac.)

**Ordnance Survey Sheet 1:50,000:** 102, 108

**1:25,000:** SD 21, 22, 23, 31, 32, 33, 42

**Date Notified (Under 1949 Act):** –

**Date of Last Revision:** 1979

1966 (Southport Sanctuary)

1976 (Ribble Estuary)

**Date Notified (Under 1981 Act):** 1984

**Date of Last Revision:** 1984

### Other Information:

1. Listed as an internationally important coastal site in 'A Nature Conservation Review' ed. D.A Ratcliffe (1977) Cambridge University Press.
2. 2,916 ha of the foreshore west of the National Nature Reserve are covered by the Southport Sanctuary, a National Wildfowl Refuge made a statutory bird sanctuary by the Wild Birds (Southport Sanctuary) Order 1956 under the Protection of Birds Act 1954. By virtue of the Interpretation Act 1978 the Order remains in force.
3. 6,730.0 ha of the SSSI are in Lancashire and 2,501.6 ha are in Merseyside.
4. The area of the National Nature Reserve is 2302 ha.
5. The boundary of the SSSI has been modified by a number of deletions and one extension.
6. The site is adjacent to the Southport Sand Dunes and Foreshore SSSI.

### Description and Reasons for Notification:

The Ribble Estuary is situated on the Lancashire coast west of Preston between Southport and Lytham St. Annes extending inland to Longton. It has extensive intertidal sand-silt flats with one of the largest areas of grazed green marsh in Britain and includes small areas of recently reclaimed saltmarsh. The estuary is of international importance for the passage and wintering waterfowl it supports, being a major link in the chain of estuaries down the west coast of Britain used by birds on migration between the breeding grounds in the far north and their wintering grounds further south. The Ribble Estuary National Nature Reserve is located in the centre of the SSSI and most of the foreshore in Sefton outside the NNR is covered by the Southport Sanctuary which provides a protected low tide roost for pink-footed geese (*Anser brachyrhynchus*).

The mudflats are rich in invertebrates on which the waders and many of the wildfowl, especially shelduck (*Tadorna tadorna*), feed and the sandbanks also provide low tide roosting sites for pink-footed geese. The saltmarshes consist mainly of saltmarsh grass/red fescue sward with a belt of cordgrass (*Spartina*) at the seaward edge. They provide roosting sites for the waders at high tide and support large numbers of wildfowl such as mallard (*Anas platyrhynchos*), teal (*Anas crecca*), wigeon (*Anas penelope*) and pink-footed geese (*Anser brachyrhynchus*).

The estuary supports internationally important numbers of the following waterfowl: Bewick's swan (*Cygnus columbianus bewickii*), pink-footed goose, shelduck, wigeon, oystercatcher (*Haematopus ostralegus*), knot (*Calidris canutus*), sanderling (*Calidris alba*), dunlin (*Calidris alpina alpina*), black-tailed godwit (*Limosa limosa islandica*) and bar-tailed godwit (*Limosa lapponica*) as well as smaller populations of lapwing (*Vanellus vanellus*), curlew (*Numenius arquata*), grey plover (*Pluvialis squatarola*) and golden plover (*Pluvialis apricaria*). The total numbers of waterfowl are also of international importance. Wildfowl numbers regularly exceed the criterion of 10,000. During the period 1977–82 the peak counts of waders greatly exceeded the criterion of 20,000, being always in excess of 56,000 with a maximum of 86,000, keeping the Ribble in the top seven estuaries in Britain for waders. The breeding bird communities of the saltmarsh are also significant and include nationally important breeding populations of black-headed gull (*Chroicocephalus ridibundus*), common tern (*Sterna hirundo*) and redshank (*Tringa tetanus*).

Enclosed by the Coastal Road is an area of reclaimed unimproved grazing marsh, an uncommon habitat in NW England. This still supports a variety of saltmarsh plants in the more brackish parts nearer the sea and along the creeks. Plants such as cord-grass (*Spartina* sp.), thrift (*Armeria maritima*), sea aster (*Tripolium pannonicum*) and the brackish water crowfoot (*Ranunculus baudotii*), a particularly scarce plant in NW England, occur here. These areas are important as a major high tide roost for waterfowl, especially redshank (*Tringa tetanus*), grey plover (*Pluvialis squatarola*), black-tailed godwit, dunlin, oystercatcher, Bewick's swan and wigeon. They also support a diverse breeding bird community which includes skylark (*Alauda arvensis*), lapwing, teal, shoveler (*Anas clypeata*), ringed plover (*Charadrius hiaticula*) and snipe (*Gallinago gallinago*).



## Appendix H. Newton Marsh Site of Special Scientific Interest (SSSI) Information

COUNTY: LANCASHIRE

SITE NAME: NEWTON MARSH

DISTRICT: FYLDE

**Status:** SSSI notified under Section 28 of the Wildlife and Countryside Act, 1981.

**Local Planning Authority:** Fylde Borough Council

**National Grid Reference:** SD 450292

**Area:** 65.6 (ha) 162.1 (ac)

**Ordnance Survey Sheet 1:50 000** 102

**1:10 000** SD 42 NE SD 42 NW

**Date Notified (Under 1949 Act):** 1979

**Date of Last Revision:** –

**Date Notified (Under 1981 Act):** 1986

**Date of Last Revision:** 1986

### Other Information:

The site boundary remains unchanged at renotification.

### Description and Reasons for Notification:

Newton Marsh is located near to the Ribble Estuary, 2 km east of Freckleton, and comprises 162 acres of grazed, improved pasture reclaimed from former saltmarsh but retaining a number of pools and ditches. These features, the relative lack of disturbance, its size and proximity to the Ribble Estuary and its position along a major migration route down the west coast of Britain account for the importance of the site for over-wintering and migrant birds.

Over 100 bird species have been recorded from Newton Marsh, the majority being spring and winter visitors forming part of the migrant populations which use the west coast estuaries of Britain on their route from the breeding grounds in the far north and the wintering grounds further south. The proximity of Newton Marsh to the Ribble Estuary allows an interchange of birds between the two sites and total numbers will vary according to local conditions. On average Newton Marsh supports in the region of 10,000 birds each winter, but under adverse conditions these numbers can be substantially higher as the marsh provides a valuable source of refuge, protected from high tides and relatively free from disturbance.

Large flocks of golden plover (*Pluvialis apricaria*) habitually favour this site in the winter and numbers present each year (up to 8,000) regularly exceed the qualifying level for national importance (2,000). Other winter visitors include large numbers of lapwing (*Vanellus vanellus*) (up to 10,000) with smaller flocks of snipe (*Gallinago gallinago*), bar-tailed godwit (*Limosa lapponica*), redshank (*Tringa tetanus*), dunlin (*Calidris alpina alpina*), mallard (*Anas platyrhynchos*), teal (*Anas crecca*), shelduck (*Tadorna tadorna*) and wigeon (*Anas penelope*). In spring and autumn up to 1,200 black-tailed godwits (*Limosa limosa islandica*) have been recorded from the site and numbers of this species are in most years in excess of the qualifying level for national importance (50). Other passage migrants include greenshank (*Tringa nebularia*), spotted redshank (*Tringa erythropus*), common sandpiper (*Actitis hypoleucos*) and sanderling (*Calidris alba*).

While the natural saltmarsh breeding bird community has been altered by a change in the nature of the vegetation brought about by reclamation, the wetness of the pasture has encouraged the development of a new bird

community which includes freshwater fen, saltmarsh and farmland species. Regular breeding species include lapwing, redshank, mallard, moorhen (*Gallinula chloropus*), coot (*Fulica atra*), skylark (*Alauda arvensis*), yellow wagtail (*Motacilla flava*) and meadow pipit (*Anthus pratensis*), with less frequent breeding records for snipe (*Gallinago gallinago*), little grebe (*Tachybaptus ruficollis*), mute swan (*Cygnus olor*), shelduck (*Tadorna tadorna*), reed bunting (*Emberiza schoeniclus*), oystercatcher (*Haematopus ostralegus*) and corn bunting (*Emberiza calandra*).

The interest of the site is further enhanced by the presence of a variety of aquatic and marsh plants in the pools and ditches, which include the flowering rush (*Butomus umbellatus*) and spiked sedge (*Carex spicata*), both rare species in Lancashire.

## Appendix I. Jacobs Wintering Bird Survey Results Table – 2019/2020 Surveys

### Key

Amber and Red Lists – Birds of Conservation Concern 4 (2015)

Sched 1 – Schedule 1 Wildlife and Countryside Act 1981 (as amended)

LBAP – Local Biodiversity Action Plan

NERC – Natural Environment and Rural Communities Act 2006: Section 41 List of species of principal importance

SPA – Qualifying species of the Ribble and Alt Estuaries Special Protection Area

Ramsar – Qualifying species of the Ribble and Alt Estuaries Ramsar Site

SSSI – Qualifying species of the Ribble and Alt Estuaries Site of Special Scientific Interest (SSSI) and/or Newton Marsh SSSI

Species	Scientific name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Conservation status
Blackbird	<i>Turdus merula</i>	18	24	44	37	11	5	
Black-headed gull	<i>Chroicocephalus ridibundus</i>	25	101	15	84	6		Amber, SSSI
Blue tit	<i>Cyanistes caeruleus</i>	10	11	9	18	4	6	
Bullfinch	<i>Pyrrhula pyrrhula</i>	2	1					Amber, NERC,
Buzzard	<i>Buteo buteo</i>	8	5	4	4	2		
Canada goose	<i>Branta canadensis</i>			1	7	13	8	
Carrion crow	<i>Corvus corone</i>	45	13	32	11	11	8	
Chaffinch	<i>Fringilla coelebs</i>	8	9	6	15	7	9	
Coal tit	<i>Periparus ater</i>	1				2	1	
Common gull	<i>Larus canus</i>	4	9		3			Amber
Coot	<i>Fulica atra</i>			1				
Cormorant	<i>Phalacrocorax carbo</i>				2	1	1	
Curlew	<i>Numenius arquata</i>					1		Red, NERC, SSSI
Duncock	<i>Prunella modularis</i>	4	4	7	8	1	2	Amber, NERC,
Feral pigeon	<i>Columba livia domestica</i>		15					
Fieldfare	<i>Turdus pilaris</i>	217	47	19				Red
Goldcrest	<i>Regulus regulus</i>	1	1	6	4			
Goldfinch	<i>Carduelis carduelis</i>	10	10	10	23	10	5	
Goosander	<i>Mergus merganser</i>					1		
Great black-backed gull	<i>Larus marinus</i>					1		Amber
Great spotted woodpecker	<i>Dendrocopos major</i>			2	1			
Great tit	<i>Parus major</i>	6	12	20	20	5	4	
Greenfinch	<i>Chloris chloris</i>	2	4	2	2	4		
Grey heron	<i>Ardea cinerea</i>	3	1	4	2	8	2	
Grey wagtail	<i>Motacilla cinerera</i>	3	2	3	1	3		Red
Greylag goose	<i>Anser anser</i>	2	3					Amber
Herring gull	<i>Larus argentatus</i>	2		13	14	1	4	Amber, NERC,
House sparrow	<i>Passer domesticus</i>	16	27	30	15	2	15	Red, LBAP, NERC,

## Wintering Bird Survey Report

Species	Scientific name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Conservation status
Jackdaw	<i>Corvus monedula</i>	23	52	24	2		2	
Jay	<i>Garrulus glandarius</i>			1				
Kestrel	<i>Falco tinnunculus</i>	4	3	3	1	1	1	Amber
Kingfisher	<i>Alcedo atthis</i>	1						Amber, Sched 1,
Lapwing	<i>Vanellus vanellus</i>	5	16			9	1	Red, LBAP, NERC, SSSI
Lesser black-backed gull	<i>Larus fuscus</i>	2			4	5		Amber
Little owl	<i>Athene noctua</i>						1	
Long-tailed tit	<i>Aegithalos caudatus</i>		14			1	3	
Magpie	<i>Pica pica</i>	5	11	13	13	6	9	
Mallard	<i>Anas platyrhynchos</i>	17	18	20	30	14	9	Amber, SSSI
Meadow pipit	<i>Anthus pratensis</i>	17	4	1	1	7	15	Amber
Mistle thrush	<i>Turdus viscivorus</i>		2	6	2		1	Red
Moorhen	<i>Gallinula chloropus</i>	6	6	6	4	4	2	
Mute swan	<i>Cynvus olor</i>					2	3	Amber
Nuthatch	<i>Sitta europaea</i>			1	2	2		
Oystercatcher	<i>Haematopus ostralegus</i>					1	2	Amber, SPA, Ramsar, SSSI
Pied wagtail	<i>Motacilla alba</i>	4	6	5	2	1	4	
Pink-footed goose	<i>Anser brachyrhynchus</i>	80		55	31			Amber, SPA, Ramsar, SSSI
Raven	<i>Corvus corax</i>		2			1		
Redwing	<i>Turdus iliacus</i>	130	77	639	185	91		Red
Reed bunting	<i>Emberiza schoeniclus</i>	1		2			1	Amber, LBAP, NERC,
Robin	<i>Erithacus rubecula</i>	9	8	14	15	13	6	
Rook	<i>Corvus fruailegus</i>		10	25			4	
Skylark	<i>Alauda arvensis</i>	5	1			3		Red, LBAP, NERC,
Snipe	<i>Gallinago gallinago</i>	8	1			2	2	Amber, SSSI
Song thrush	<i>Turdus philomelos</i>	10	18	11	6			Red, LBAP, NERC,
Sparrowhawk	<i>Accipiter nisus</i>	1		2				
Starling	<i>Sturnus vulgaris</i>	94	270	690	257	19	1	Red, NERC,
Stock dove	<i>Columba oenas</i>	5	1		5	3	1	Amber
Teal	<i>Anas crecca</i>	5	1	29	102	37	8	Amber, SPA, Ramsar, SSSI
Tree sparrow	<i>Passer montanus</i>	1				2	1	Red, LBAP, NERC,
Treecreeper	<i>Certhia familiaris</i>		1		1			
Woodcock	<i>Scolopax rustica</i>		2			1	1	Amber
Woodpigeon	<i>Palumbus columbus</i>	168	26	29	41	29	18	
Wren	<i>Troglodytes troglodytes</i>	4	5	5	5	1	6	
TOTAL NO. SPECIES: 63 species								

## Appendix J. Population Status of Wintering Bird Species of Conservation Concern in Lancashire

All population information is taken from The State of Lancashire's Birds: An Atlas of the Breeding and Wintering Birds of Lancashire and North Merseyside 2007-2011 (White, *et al.*, 2013). The species listed below are included in at least one of the following; Council Directive 2009/147/EC on the conservation of wild birds (the 'Birds Directive'); Wildlife and Countryside Act 1981 (as amended); NERC Act 2006 Section 41 and/or BoCC4 (Eaton *et al.*, 2015).

Species	Scientific Name	Lancashire winter population estimates 2007-11	Jacobs' wintering bird survey peak count 2019-2020	% of Lancashire population estimate
Black-headed gull	<i>Chroicocephalus ridibundus</i>	30000	101	0.34%
Bullfinch	<i>Pyrrhula pyrrhula</i>	4750	2	0.04%
Common gull	<i>Larus canus</i>	30000	9	0.03%
Curlew	<i>Numenius arquata</i>	10500	1	0.009%
Dunnock	<i>Prunella modularis</i>	21500	8	0.04%
Fieldfare	<i>Turdus pilaris</i>	20000	217	1.09%
Great black-backed gull	<i>Larus marinus</i>	1000	1	0.1%
Greylag goose	<i>Anser anser</i>	12000	2	0.016%
Grey wagtail	<i>Motacilla cinerera</i>	2300	15	0.65%
Herring gull	<i>Larus argentatus</i>	50000	14	0.028%
House sparrow	<i>Passer domesticus</i>	100000	30	0.03%
Kestrel	<i>Falco tinnunculus</i>	2000	4	0.2%
Kingfisher	<i>Alcedo atthis</i>	450	1	0.22%
Lapwing	<i>Vanellus vanellus</i>	35000	16	0.04%
Lesser black-backed gull	<i>Larus fuscus</i>	2000	5	0.25%
Mallard	<i>Anas platyrhynchos</i>	12000	30	0.25%
Meadow pipit	<i>Anthus pratensis</i>	9000	17	0.19%
Mistle thrush	<i>Turdus viscivorus</i>	10000	6	0.06%
Mute swan	<i>Cygnus olor</i>	1000	3	0.3%
Oystercatcher	<i>Haematopus ostralegus</i>	47000	2	0.004%
Pink-footed goose	<i>Anser brachyrhynchus</i>	50000	80	0.16%
Redwing	<i>Turdus iliacus</i>	12000	639	5.33%
Reed bunting	<i>Emberiza schoeniclus</i>	5000	2	0.04%
Skylark	<i>Alauda arvensis</i>	25000	6	0.02%
Snipe	<i>Gallinago gallinago</i>	8500	8	0.09%
Song thrush	<i>Turdus philomelos</i>	18000	18	0.1%
Starling	<i>Sturnus vulgaris</i>	300000	690	0.23%
Stock dove	<i>Columba oenas</i>	6000	5	0.08%
Teal	<i>Anas crecca</i>	10000	102	1.02%
Tree sparrow	<i>Passer montanus</i>	6000	2	0.03%
Woodcock	<i>Scolopax rustica</i>	2000	2	0.1%

## Appendices References

Eaton, M.A., Aebischer, N.J., Brown, A.F., Hearn, R., Lock, L., Musgrove, A.J., Noble, D.G., Stroud, D.A. and Gregory, R.D. 2015. Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. *British Birds* 108, pp708-746296–341.

Ratcliffe, R.A. 1977. *A Nature Conservation Review*. Cambridge University Press

White, S., McCarthy, B., Dunstan, S., Martin, S., Harris, B., Hulme, G., and Marsh, P. 2013. *The State of Lancashire's Birds: An Atlas of the Breeding and Wintering Birds of Lancashire and North Merseyside 2007-2011*. Lancashire and Cheshire Fauna Society.