

Dowbridge, Kirkham, Lancashire, PR4 3RD

WINTERING BIRD SURVEY RESULTS 2015 / 2016

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Document Control

Survey Type:	Surveyors	Survey Date(s)
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Report issued to	Hollins Strategic Land	

SUMMARY

Introduction and Scope

- i. In connection with the development of the land at Dowbridge, Kirkham, Lancashire (hereafter referred to as the 'site'), ERAP Ltd (Consultant Ecologists) was commissioned to carry out wintering bird surveys of the habitats within the site and in the wider surrounding area (hereafter referred to as the 'study zone').
- ii. A total of 72 hours (12 surveys, 2 per month) of survey between October 2015 and March 2016 were undertaken.
- iii. The survey was required to address a consultation response received from Natural England (dated 1st October 2015) that recognised the proximity of the site to the Ribble and Alt Estuaries Special Protection Area (SPA) and Ramsar and the Ribble Estuary Site of Special Scientific Interest (SSSI), and the Wyre Estuary which forms part of the Morecambe Bay Special Area of Conservation (SAC), SPA and Ramsar and their value to wintering birds.
- iv. The land within the study zone was assessed for its suitability for use by foraging and resting wintering bird species based on the habitat requirements described in *Bird Monitoring Methods: A Manual of Techniques for Key UK Species* (Gilbert, et al., 1998).
- v. All visible and audible birds were recorded during the survey of the site and the study zone following the standard recording methodology and codes of the *British Trust for Ornithology (BTO) Common Bird Census* (Marchant, 1983).

Results of Survey and Assessment

- vi. A total of thirty-four bird species were detected during the surveys. Eleven species detected during the surveys are named on citations for the statutory designated sites in the wider area. Eight species are named as wintering bird species of special interest and three species are named as other bird species of special interest.
- vii. The surveys detected large flocks of pink-footed geese flying over the site. The habitat in the study zone does not support habitats such as fields of potato and cereal crops that are typically selected by feeding geese and the relatively small scale extension of built land is unlikely to cause a change in the behaviour of the geese flying over the area.
- viii. Wintering waterfowl namely low numbers of teal and mallard were detected in association with the open water habitats at the pond. The pond will be retained and managed for continued use by waterfowl.
- ix. The survey periods extended over low and high tide times. There is no elevation in numbers of wading birds at the study zone during high tide times. There is no evidence that the site and study zone is used as a high tide roost by wading birds.
- x. Flocks of lesser black-backed gull, common gull, black-headed gull and herring gull were recorded at the study zone and in the wider area. These gulls will be displaced from the site, however it is likely that the gulls will move to the fields in the wider study zone that they are currently using.

Conclusion

- xi. Suitable and proportionate mitigation for the protection of wintering birds detected in the wider area (and breeding birds within the site) will be carried out.
- xii. The proposals also provide an opportunity to enhance the opportunities for general bird species diversity (including Priority Species) by habitat creation and enhancement.
- xiii. In consideration of whether the proposals will result in the loss of a valuable off-site habitat that supports the designated sites, on balance and based on the habitats at the site and the relatively low bird species diversity and numbers of birds recorded, it is ERAP Ltd's opinion that development of the 13 hectare site at Dowbridge, Kirkham will:
 - a. Not have a significant effect on the designated sites and their autumn passage and wintering bird features of special interest; and
 - b. Not have a significant effect on the relevant and identified national designated sites (SSSI) and their features of special interest

1.0 INTRODUCTION

Background and Rationale

- 1.1 Hollins Strategic Land have applied for planning permission to develop the land at Dowbridge, Kirkham (hereafter referred to as the 'site') to housing. The Ordnance Survey (OS) grid reference at the centre of the site is SD 4365 3184.
- 1.2 The site comprises farm buildings with associated hard-standing surrounded by improved agricultural grassland, tall herb vegetation, hedgerows and trees, ditches and a pond.
- 1.3 Within a 4 kilometre radius of the site lie the Newton Marsh Site of Special Scientific Interest (SSSI), the Ribble Estuary SSSI and the Ribble and Alt Estuaries Special Protection Area (SPA) and Ramsar. The Wyre Estuary SSSI lies 9.2 kilometres from the site (which forms part of the Morcambe Bay Special Area of Conservation (SAC), SPA and Ramsar). One of the features of special interest at these marsh and estuarine sites are their wintering bird species composition and abundance.
- 1.4 As stated by Natural England (consultation letter dated 1st October 2015) "*Special Protection Areas are classified for rare and vulnerable birds, and for regularly occurring migratory species. The birds for which SPAs are designated may also rely on areas outside of the SPA boundary. These supporting habitats may be used by SPA populations or some individuals of the population for some or all of the time. These supporting habitats can play an essential role in maintaining SPA bird populations, and proposals affecting them may therefore have the potential to affect the SPA*".
- 1.5 In consultation, Natural England has advised that a Habitats Regulations Assessment (HRA) is necessary to determine whether the proposal is likely to have a significant effect on any European site (and the SSSIs) [letter dated 1st October 2015]. To inform the HRA and provide supporting information ERAP Ltd (Consultant Ecologists) devised and carried out autumn passage and wintering bird surveys of the site and a relevant wider area (hereafter referred to as the 'study zone').

Scope and Objectives

- 1.6 The scope and objectives of the survey were to:
 - a. Carry out a desktop study to collate relevant known information regarding the use of the study zone by autumn passage and wintering birds;
 - b. Assess the potential value of the habitats within the study zone for use by autumn passage and wintering birds;
 - c. Apply recognised survey methodologies to detect wintering birds within the site and the study zone;
 - d. Collate an overview of the bird usage of the study zone by determining the bird species diversity including the search for wintering species such as swans and geese and those species of special interest at the relevant designated sites namely Newton Marsh SSSI, Wyre Estuary SSSI, the Ribble Estuary SSSI and the Ribble and Alt Estuaries SPA and Ramsar;
 - e. Determine the use of the site by UK Biodiversity Action Plan (BAP) Priority Species of bird which, in accordance with Part III A of *Circular 06/2005 Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impacts within the Planning System* (Office of the Deputy Prime Minister, 2005) may be a material consideration in a planning decision;
 - f. Evaluate the survey findings and determine the potential of the proposals to affect the interest features of internationally and nationally designated sites within the wider area; and
 - g. Present this report to contribute to the HRA for the proposals.

2.0 METHOD OF SURVEY

2.1 Desktop Study

- 2.1.1 Fylde Bird Club (the local bird group) was contacted and records within a one kilometre radius of the site were obtained.

2.2 Survey Approach, Personnel, Dates and Weather Conditions

Survey Area

- 2.2.1 The survey area comprised the site (approximately 13 hectares (ha)) and extended to a wider area covering land approximately 300 metres from the site boundary to achieve a total study zone of approximately 44.5 ha. Existing developed land and housing estates were excluded from the study zone.
- 2.2.2 The extent of the study zone is appropriate based on the existing conditions within the site and the habitats within the surrounding landscapes. A 300 metre survey buffer was also considered to be appropriate based on the size of the site and the potential zone of influence of any potential impacts (although this was reviewed throughout the survey duration and the study zone would have been extended if the survey results indicated that a greater zone of potential influence could occur).
- 2.2.3 Birds observed beyond the study zone but within visibility of the study zone were also recorded for completeness.
- 2.2.4 The study zone is indicated on **Figure 1**.

Habitat Assessment

- 2.2.5 Habitats and land in the study zone was assessed for its suitability for use by foraging and resting autumn passage and wintering bird species based on their habitat requirements described in *Bird Monitoring Methods: A Manual of Techniques for Key UK Species* (Gilbert, et al., 1998).

Survey Effort

- 2.2.6 Autumn passage and wintering bird surveys were conducted by Mr. Chris Swindells B.Sc. (Hons) (an experienced bird surveyor) on 12 occasions between October 2015 and March 2016. The survey dates, weather conditions and other information are presented in **Table 2.1**, below.
- 2.2.7 A range of tidal conditions were experienced throughout the survey period, refer to **Table 2.1**, to take account of birds which may be flying to the site at high tide, for example.
- 2.2.8 In accordance with Natural England guidelines (Natural England, 2010) two survey visits were undertaken per month between October 2015 and March 2016. The survey effort comprised 12 visits lasting approximately 72 hours (6 hours per visit (refer to **Table 2.1**)) during favourable weather conditions (i.e. no fog or heavy rain).
- 2.2.9 Transects of a total length of approximately 2.5 kilometres were walked through the study zone and two survey stations/vantage points were used to obtain a complete coverage. Visible and audible birds detected were identified and recorded following the standard recording methodology and codes of the *British Trust for Ornithology (BTO) Common Birds Census* (Marchant, 1983).
- 2.2.10 Nikon Action 10x50 binoculars and an Opticron 80mm scope were used to identify bird species, where necessary.

Table 2.1: Details of Site Visits

	Survey 1	Survey 2	Survey 3	Survey 4	Survey 5	Survey 6
Survey date	17 th October 2015	25 th October 2015	4 th November 2015	17 th November 2015	4 th December 2015	16 th December 2015
Survey period	08:00 to 14:00	07:00 to 13:00	08:00 to 14:00	07:30 to 13:30	08:00 to 14:00	08:30 to 14:30
Temperature	08:00 : 6°C 14:00 : 13°C	07:00 : 5°C 13:00 : 12°C	08:00 : 10°C 14:00 : 14°C	07:30 : 8°C 13:30 : 12°C	08:00 : 7°C 14:00 : 12°C	08:30 : 12°C 14:30 : 13°C
Weather conditions	Sunny with scattered cloud	Sunny with scattered cloud	Cloudy with light rain and sunny intervals	Overcast with light rain	Cloudy with sunny intervals	Overcast
Sunrise	07:42	06:57	07:17	07:42	08:10	08:24
Tide	Low: 11:54 High: 14:15	Low: 06:42 High: 08:59	High: 04:43 Low: 14:45	Low: 11:55 High: 14:21	High: 05:02 Low: 15:00	Low: 11:45 High: 14:11

	Survey 7	Survey 8	Survey 9	Survey 10	Survey 11	Survey 12
Survey date	6 th January 2016	19 th January 2016	3 rd February 2016	17 th February 2016	2 nd March 2016	16 th March 2016
Survey period	08:00 to 14:00	08:00 to 14:00	08:00 to 14:00	08:00 to 14:00	07:00 to 13:00	07:00 to 13:00
Temperature	08:00 : 6°C 14:00 : 8°C	08:00 : 3°C 14:00 : 4°C	08:00 : 4°C 14:00 : 8°C	08:00 : 5°C 14:00 : 6°C	07:00 : 2°C 13:00 : 4°C	07:00 : 5°C 13:00 : 9°C
Weather conditions	Cloudy with sunny intervals	Overcast with occasional sunny intervals	Sunny with scattered cloud	Occasional light rain showers	Cloudy with showers and sunny intervals	Cloudy with occasional sunny intervals
Sunrise	08:28	08:17	07:55	07:28	06:57	06:23
Tide	High: 08:21 Low: 18:21	High: 05:19 Low: 15:23	High: 06:19 Low: 16:24	High: 06:09 Low: 16:26	High: 04:04 Low: 14:03	High: 04:25 Low: 14:38

2.3 Survey Limitations

2.3.1 No survey limitations were experienced throughout the survey period.

3.0 SURVEY RESULTS

3.1 Desktop Study

3.1.1 A map identifying the location of each designated site in relation to the study zone is appended at **Figure 2**.

Statutory Designated Sites

Newton Marsh SSSI

3.1.2 The Newton Marsh SSSI covers an area of approximately 65.6ha and is located approximately 2.6 kilometres south-east of the site boundary. The citation is appended at **Section 8.1** (Natural England, 1986).

3.1.3 The citation states that winter visitors include golden plover and up to 10,000 lapwing with smaller flocks of snipe, bar-tailed godwit, redshank, dunlin, mallard, teal, shelduck and wigeon. Up to 1,200 black-tailed godwits have been recorded during spring and autumn (50 is required to be of national importance) and other passage migrants include greenshank, spotted redshank, common sandpiper and sanderling.

3.1.4 The new bird community due to the change in nature of the vegetation (due to reclamation of saltmarsh habitat) includes regular breeding lapwing, redshank, mallard, moorhen, coot, skylark, yellow wagtail and meadow pipit with less regular breeding snipe, little grebe, mute swan, shelduck, reed bunting, oystercatcher and corn bunting.

Wyre Estuary SSSI

- 3.1.5 The Wyre Estuary SSSI is approximately 1,488.03 ha in area and is located approximately 9.2 kilometres north-west of the site boundary. The citation is appended at **Section 8.2** (Natural England, 1995).
- 3.1.6 The citation states that the SSSI is nationally important for the wintering and passage of black-tailed godwit (numbers exceeding 100) and wintering turnstone. The site is an important hard weather roost for teal with large numbers of lapwing and golden plover using the estuary for roosting at low tide.
- 3.1.7 Other wading birds which regularly use the estuary include oystercatcher, redshank and dunlin are reported to regularly use the site for feeding.

Ribble Estuary SSSI and the Ribble and Alt Estuaries SPA and Ramsar

- 3.1.8 The nearest boundary of the Ribble Estuary SSSI (approximately 9226.3 ha) and the Ribble and Alt Estuaries SPA (approximately 12361.13 ha) and Ramsar (approximately 13464.10 ha) are located approximately 3.6 kilometres south of the site boundary. The citations are appended at **Section 8.3 to 8.5** (Natural England, 1984), (Joint Nature Conservation Committee, 2001) and (Natural England, 2015).
- 3.1.9 The citation for the Ribble Estuary SSSI states that the site supports a protected low tide roost for pink-footed geese.
- 3.1.10 The mudflats support feeding shelduck and pink-footed geese and provide high tide roosting sites for mallard, teal, wigeon and pink-footed geese.
- 3.1.11 The SSSI supports internationally important numbers of Bewick's swan, pink-footed goose, shelduck, wigeon, oystercatcher, knot, sanderling, dunlin, black-tailed and bar-tailed godwit and smaller populations of lapwing, curlew, grey plover and golden plover.
- 3.1.12 Areas of unimproved grazing marsh are important high tide roosts for redshank, grey plover, black-tailed godwit, dunlin, oystercatcher, Bewick's swan and wigeon and also support a diverse breeding community including skylark, lapwing, teal, shoveler, ringed plover and snipe.
- 3.1.13 The citation for the Ribble and Alt Estuary SPA states that the site supports over winter populations of European importance of bar-tailed godwit, Bewick's swan, golden plover, whooper swan, ringed plover, on passage ringed plover and sanderling and over winter black-tailed godwit, dunlin, grey plover, knot, oystercatcher, pink-footed goose, pintail, redshank, sanderling, shelduck, teal and wigeon.

Data Search

- 3.1.14 Fylde Bird Club provided records of bird species recorded within a two kilometre radius of the site boundary. it was not possible to obtain or extrapolate bird data for the study zone only from the Fylde Bird Club and therefore a 2 kilometre radius was applied to obtain background information with regard to the species that are regularly observed in the area.
- 3.1.15 The supplied data and the habitat assessment of the study zone informed the need for a specific winter bird survey.
- 3.1.16 The records for all bird species named on the citations for the relevant designated sites in the wider area are presented at **Table 3.1**.

Table 3.1: Bird Species Named on Citations for Designated Sites Reported within a Two Kilometre Radius of the Site Boundary

Scientific Name	Species Name	Number of Records Provided	Peak Count (where available)
Autumn Passage and Wintering Bird Species of Special Interest			
<i>Actitis hypoleucos</i>	Common Sandpiper	3	1
<i>Anas acuta</i>	Pintail	3	5
<i>Anas crecca</i>	Teal	4	40
<i>Anas platyrhynchos</i>	Mallard	13	60
<i>Anser brachyrhynchus</i>	Pink-footed goose	3	310
<i>Cygnus columbianus</i>	Bewick's swan	1	8
<i>Cygnus Cygnus</i>	Whooper swan	5	13
<i>Cygnus olor</i>	Mute swan	3	12
<i>Gallinago gallinago</i>	Snipe	7	3
<i>Haematopus ostralegus</i>	Oystercatcher	7	4
<i>Limosa limosa</i>	Black-tailed Godwit	1	450
<i>Sterna hirundo</i>	Common Tern	1	6
<i>Tadorna tadorna</i>	Shelduck	8	60
<i>Tringa totanus</i>	Redshank	3	2
<i>Vanellus vanellus</i>	Lapwing	12	45
Other Bird Species of Special Interest			
<i>Alauda arvensis</i>	Skylark	11	14
<i>Anas clypeata</i>	Shoveler	7	3
<i>Anthus pratensis</i>	Meadow pipit	8	30
<i>Emberiza schoeniclus</i>	Reed bunting	17	5
<i>Fulica atra</i>	Coot	1	4
<i>Gallinula chloropus</i>	Moorhen	11	18
<i>Larus fuscus</i>	Lesser black-backed gull	6	2
<i>Miliaria calandra</i>	Corn bunting	8	22
<i>Numenius arquata</i>	Curlew	7	85

3.2 Habitats and Conditions

- 3.2.1 Habitats within the site comprise an area of farm buildings with associated hard-standing, a single field unit of semi-improved grassland, intensively managed and agriculturally improved grassland, boundary hedgerows and one permanent pond. The habitats within the wider area making up the study zone comprise intensively managed and agriculturally improved grassland with boundary hedgerows and a further four permanent ponds. Refer to **Figure 1**.
- 3.2.2 As confirmed by the current farmer, the site is currently and has historically been used for pasture only.
- 3.2.3 The northern and western boundaries of the site support floodplains for Spen Brook and Dow Brook respectively, as indicated on the pre-development historical flooding plan (Betts Associates and Hollins Strategic Land Brook Farm, Dowbridge, Pre-Development Historical Flooding Plan, March 2016, Project No. HSL06, Drawing No. 107, Rev B) and the floodplain extents plan (Betts Associates and Hollins Strategic Land Brook Farm, Dowbridge, Floodplain Extents Plan Post-development, July 2015, Project No. HSL06, Drawing No. 2016, Rev E).
- 3.2.4 During the survey the study zone was free draining with the exception of the small floodplain associated with the brooks. It was observed throughout the surveys that the field on the opposite side of Carr Lane was inundated (beyond the study zone boundary).
- 3.2.5 During the survey there was minimal disturbance at the study zone. Dog walkers were not observed using the study zone and no agricultural machinery was in operation which may affected the survey results.

3.3 Survey Results

- 3.3.1 The raw data are appended at **Table 7.2**.

3.3.2 Thirty-four bird species were recorded.

3.3.3 A summary of all species detected during the surveys which are of importance to statutory designated sites in the wider area and the peak count during the surveys is presented at **Table 3.2**. Birds named as wintering bird species of special interest on any designated site citation are indicated in the table below. The named wintering bird species of importance at each individual site is discussed below. The peak count for each species is determined by the highest number of birds observed during one survey effort. The peak counts may not be taken from the same survey repetition.

Table 3.2: Summary of Species of Importance to Statutory Designated Sites Detected During the Surveys

Species Name	Common Name	Newton Marsh SSSI	Wyre Estuary SSSI	Ribble Estuary SSSI	Ribble and Alt Estuaries SPA	Ribble and Alt Estuaries Ramsar	Peak Count in the Study Zone	Number of Surveys the Species was Present (n = 12 surveys)
Named on citation?								
Wintering Bird Species of Special Interest (across all designated sites)								
<i>Anas crecca</i>	Teal	Yes	Yes	-	Yes	Yes	28	10
<i>Anas platyrhynchos</i>	Mallard	Yes	-	-	-	-	12	9
<i>Anser brachyrhynchus</i>	Pink-footed goose	-	-	Yes	Yes	Yes	990+ ¹	7
<i>Gallinago gallinago</i>	Snipe	Yes	-	Yes	-	-	3	2
<i>Haematopus ostralegus</i>	Oystercatcher	Yes	Yes	Yes	-	Yes	6	2
<i>Limosa limosa</i>	Black-tailed godwit	Yes	Yes	-	Yes	Yes	12	1
<i>Tadorna tadorna</i>	Shelduck	Yes	-	Yes	Yes	Yes	2	2
<i>Vanellus vanellus</i>	Lapwing	Yes	Yes	Yes	-	-	170+	8
Other Bird Species of Special Interest (across all designated sites)								
<i>Alauda arvensis</i>	Skylark	Yes	-	Yes	-	-	2	4
<i>Emberiza schoeniclus</i>	Reed bunting	Yes	-	-	-	-	22+	10
<i>Larus fuscus</i>	Lesser black-backed gull	-	-	-	Yes	Yes	16	11

¹ = Observed in flight over study zone only

Species Diversity

3.3.4 Eleven species named on the citations for the statutory designated sites in the wider area were detected during the surveys.

3.3.5 Eight species named as wintering bird species of special interest on the citations were detected and three other bird species of special interest were detected.

3.3.6 It is important to note that Pink-footed Geese were not detected on the site and were recorded flying over the site during seven surveys only.

3.3.7 Fifteen other bird species listed to be of special interest in the designated site citations (refer to **Section 3.1**) namely golden plover, grey plover, ringed plover, bar-tailed godwit, redshank, dunlin, wigeon, greenshank, spotted redshank, common sandpiper, sanderling, turnstone, Bewick's swan, knot and curlew were not detected at the site. As discussed in **Section 4.0**, in most cases the absence of these species is attributed to the unsuitability of the habitats present in the study zone.

Abundance of Individual Bird Species, Recorded Positions and Observed Activity

Teal

- 3.3.8 Teal were recorded during 10 surveys. On 9 occasions teal were recorded in numbers between 2 and 28 at the pond within the site boundary (on the eastern boundary of the site).

Mallard

- 3.3.9 A peak count of 12 mallard was recorded at the pond within the site boundary (on the eastern boundary of the site) during Survey 6 (16th December 2015).

Snipe

- 3.3.10 Snipe were only recorded on two occasions. In both instances they were flying over the site.

Oystercatcher

- 3.3.11 Oystercatcher were not recorded directly in the site but were present in the fields to the north-west of the study zone during surveys 11 and 12.

Black-tailed Godwit

- 3.3.12 Black-tailed godwit were not recorded directly in the site but were present in the fields to the north-west of the study zone during Survey 12 only.

Shelduck

- 3.3.13 Two shelduck were present in the site during Survey 11 only.

Lapwing

- 3.3.14 Lapwing were recorded within the field in the north-east corner of the study zone on one occasion only (Survey 1 = recorded peak count of 170+ lapwing). Later surveys detected between 5 and 43 lapwing in the field to the north-west and outside the study zone on 7 occasions.

Skylark

- 3.3.15 One or two skylark were recorded on 4 occasions within the study zone.

Reed Bunting

- 3.3.16 Reed bunting were recorded in the hedgerows in the study zone on 10 occasions with a peak count of 22.

Lesser Black-backed Gull

- 3.3.17 The eleven positive recordings of lesser black-backed gull were associated with the fields to the north-west of the study zone. This species was also recorded flying over the study zone (including the site).

RSPB Wintering and Passage Species

- 3.3.18 Four wintering and passage species, as defined by RSPB, were detected during the survey including black-tailed godwit, fieldfare, Mediterranean gull and pink-footed goose, refer to **Table 8.1**.

- 3.3.19 Of these species, three are named as wintering bird species of special interest on the citations of at least one of the designated sites in the wider area, including black-tailed godwit, lapwing and pink-footed goose and two are named as other bird species of special interest including reed bunting and skylark.

UK BAP Priority Species

- 3.3.20 Eleven Priority Species were detected during the survey including black-tailed godwit, bullfinch, dunnock, grey partridge, herring gull, house sparrow, lapwing, reed bunting, skylark, song thrush and starling.
- 3.3.21 The black-tailed godwit, skylark, reed bunting and lapwing are discussed above.
- 3.3.22 Flocks of between 13 and 465+ starling were recorded feeding in the fields at the western side of the study zone and close to the existing housing estates on 9 occasions.
- 3.3.23 Herring gull was recorded either flying over the site in low numbers (1-2) or was associated with the fields to the north-west and outside of the study zone.
- 3.3.24 The remaining four passerine (perching) species listed and the Grey Partridge were typically associated with the field boundary hedgerows.

4.0 EVALUATION, ASSESSMENT AND RECOMMENDATIONS

4.1 Survey Effort

- 4.1.1 It is concluded that an appropriate and proportionate level of survey in accordance with current guidelines has been undertaken to provide an overview of the autumn passage and winter bird usage of the site and study zone.
- 4.1.2 No further survey is necessary.

4.2 Consideration of Potential Impacts

- 4.2.1 The potential impacts of the proposals on the autumn passage and wintering bird species of special interest and therefore the designated sites are:
- Habitat loss; and
 - Disturbance both during construction and operation of the site resulting in the displacement of birds from the site and surrounds.
- 4.2.2 These potential impacts are considered in the paragraphs below. This evaluation section should be used by the local planning authority to inform their Habitat Regulations Assessment.

4.3 Geese and Swans

- 4.3.1 As described, the habitat in the site boundary is permanent pasture. One field in the north-east of the study zone is planted to cereal crop annually, and one field in the west of the study zone was previously planted to a cereal crop (approximately 5 years previous to surveys). The remainder of the study zone is permanent pasture. The site boundary does not support habitats such as fields of potato and cereal crops which are typically selected by pink-footed geese and swan species in the Ribble and Alt Estuary catchment, however one field within the study zone does support this habitat.
- 4.3.2 Despite the proximity of the study zone to the designated sites, the absence of geese and swan species at the study zone and the unsuitability of the habitats for these species indicates that the proposals will have no direct effect as a result of habitat loss on these groups of birds and features of special interest.
- 4.3.3 The surveys detected relatively large flocks of pink-foot geese flying over the site. The geese were also observed flying over the existing housing estates and developed land adjacent and to the south of the site indicating that the relatively small scale extension of built land over the 13 hectare site (some of which is already occupied by buildings) will not cause a change in the geese behaviour. For example, the geese are unlikely to be diverted from flying over the developed site as this behaviour is currently occurring over the adjacent housing estates.

4.4 Waterfowl

- 4.4.1 The wintering waterfowl species of special interest namely low numbers of Teal and Mallard were confined to the open water habitats at the pond. It is reasonable to conclude that it is the size of the existing pond that is limiting the use of the site by any significant numbers of waterfowl. The pond will be retained and enhanced as part of the proposals and additional ponds will be created so this habitat feature will be retained (and managed appropriately) for continued use by waterfowl.
- 4.4.2 Despite the very wet weather and localised flooding in the Cumbria and Lancashire areas during the 2015/16 survey period, there was no inundation or significant areas of waterlogging at the study zone with the exception of the floodplain associated with the brooks. The study zone is not flood meadow habitat and the survey evidence shows that the waterfowl were associated with the pond only.
- 4.4.3 Shelduck were recorded in such low numbers (two shelduck were present in the site during Survey 11 only) that any adverse effects are reasonably discounted.

4.5 Waders

- 4.5.1 None of the identified wader species of special interest, namely oystercatcher, black-tailed godwit, snipe and lapwing were detected *within the study zone* in significant numbers during the surveys, refer to **Section 3.3**.
- 4.5.2 The survey periods extended over low tide and high tide times. There is not an elevation in numbers of wading birds at the study zone during high tide times. There is no evidence that the site and study zone is used as a high tide roost by wading birds.

4.6 Gulls

- 4.6.1 As detailed on **Figure 3 to 14**, the study zone and the fields to the north-west of the study zone supported relatively large flocks of a range of gull species (lesser black-backed gull, common gull, herring gull and black-headed gull), particularly from December onwards.
- 4.6.2 Gulls were also recorded flying across the site indicating that there is some inter-relationship between the study zone and the fields in the wider area. The gulls are therefore not entirely reliant on the habitats and area occupied by the study zone.
- 4.6.3 Gulls will be displaced from the site as a result of the proposals. It is likely that the gulls will move to the fields in the wider study zone and fields in the wider area, provided all habitats remain suitable. The Public Open Space provided within the site layout will also provide suitable habitat for gulls within the site boundary.
- 4.6.4 Gulls were observed in close (within 100 metres) of the existing housing development adjacent to the Dowbridge site, indicating a certain level of habituation of the presence of the housing. It is therefore concluded that gull species displaced from the site will move to the fields in the wider area which is an activity they were exhibiting during the survey in any case or the proposed area of Open Space on the site.

4.7 Other Potential Effects

- 4.7.1 In consideration of disturbance impacts it is recognised that the presence of additional housing will increase the local population and potentially result in increased recreational pressures e.g. dog walking in the fields around the site. This could have an adverse effect as walkers and particularly unleashed dogs may disturb birds.
- 4.7.2 However, at this site it is concluded that the risk of an increased and significant level of disturbance of the fields in the wider area is unlikely. The site is self-contained as a result of the Spen Brook and Dow Brook physical barriers and there are no Public Rights of Way within the study zone. There are currently no proposals to install any new crossings over the brooks that would direct dog walkers and other users into the wider area.

4.8 Assessment Summary

- 4.8.1 It is the local planning authority's role to carry out a Habitat Regulations Assessment and determine whether the proposals will have a likely significant effect on the designated sites and their features of special interest.
- 4.8.2 However, it is the intention that this survey report provides a clear account of the conditions at the site and a thorough and transparent assessment of the potential impacts to inform the assessment.
- 4.8.3 Based on the distance between the site and the designated sites, the development of the site is unlikely to have any direct effect on the habitats and bird species assemblages in the designated sites.
- 4.8.4 There is no survey evidence to indicate that the site and study zone are being used as a high tide roost by gulls and waders.
- 4.8.5 It is concluded that disturbance effects will not be significant. The birds are currently flying over residential housing estates to move between the estuarine habitats and more inland roosts and feeding areas and it is concluded that this behaviour will continue in the presence of the new housing.
- 4.8.6 Similarly, as the birds, particularly gull species, are using the fields close to existing housing estates currently it is suggested that there is some level of habituation and these fields will accommodate the gulls displaced from the site (as they currently do). The Public Open space within the site will also provide suitable habitat for gull species.
- 4.8.7 Finally, owing to the sympathetic layout of the site the level of operational disturbance of the birds on the adjacent fields as a result of the presence of additional housing and dog walkers etc. will not significantly increase as a result of the proposals. Although, as suggested below, screening in the form of landscape planting may also be appropriate.
- 4.8.8 In consideration of whether the proposals will result in the loss of a valuable off-site habitat that supports the designated sites, on balance and based on the habitats at the site and the relatively low bird species diversity and numbers of birds recorded, it is ERAP Ltd's opinion that development of the 13 hectare site at Dowbridge, Kirkham will:
- a. Not have a significant effect on the designated sites and their autumn passage and wintering bird features of special interest; and
 - b. Not have a significant effect on the relevant and identified national designated sites (SSSI) and their features of special interest.

4.9 Mitigation and Enhancement

- 4.9.1 It is concluded that mitigation for the temporary disturbance of and minor loss of hedgerow habitat used by Priority Species of bird (and other bird species) is entirely feasible.
- 4.9.2 Suggested mitigation measures will comprise:
- a. Clearance of vegetation outside of the bird nesting season;
 - b. Retention of the pond and its management for wildlife;
 - c. Retention of boundary hedgerows and their management for wildlife, including enhancement by supplementary planting with native species, as required; and
 - d. Screening around the site boundaries with the use of landscape planting.
- 4.9.3 Enhancement measures may comprise:
- a. Use of native plant species and species known to be of value for the attraction of feeding and nesting birds, particularly Priority Species, in the landscape planting schedule;
 - b. Installation of nesting opportunities such as nest boxes at the residential site; and
 - c. Where feasible additional native hedgerow planting will be incorporated into the site layout.

4.9.4 All these measures can be secured by a suitably worded planning condition.

5.0 CONCLUSION

- 5.1 It is concluded that the development at the site will not have a significant effect on the statutory designated sites in the wider area in relation to autumn passage and wintering birds.
- 5.2 Suitable and proportionate mitigation for the protection of wintering birds in the wider area (and breeding birds within the site) will be carried out.
- 5.3 The proposals also provide an opportunity to enhance the opportunities for general bird species diversity (including Priority Species) by habitat creation and enhancement.

6.0 REFERENCES

- Bainbridge, I. et al., 2013. *Guidelines for the Selection of Biological SSSIs*. Peterborough: Joint Nature Conservancy Council.
- Eaton, M. A. et al., 2009. Birds of Conservation Concern 3: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. *British Birds*, Issue 102, pp. 296-341.
- Gilbert, G., Gibbons, D. W. & Evans, J., 1998. *Bird Monitoring Methods: A Manual of Techniques for Key UK Species*. Exeter: Pelagic Publishing Ltd.
- Joint Nature Conservation Committee, 2001. *JNCC Ribble and Alt Estuaries SPA Description*. [Online] Available at: <http://www.jncc.defra.gov.uk/page-1984>
- Maddock, A., 2008. *UK Biodiversity Action Plan; Priority Habitat Descriptions (Updated Dec 2011)*. [Online] Available at: <http://jncc.defra.gov.uk/page-5706>
- Marchant, J., 1983. *Common Birds Census Instructions*. Tring: BTO.
- Natural England, 1984. www.sssi.naturalengland.org.uk/citation/citation_photo/1004299.pdf. Peterborough: Natural England.
- Natural England, 1986. www.sssi.naturalengland.org.uk/citation/citation_photo/1001819.pdf. Peterborough: Natural England.
- Natural England, 1995. www.sssi.naturalengland.org.uk/citation/citation_photo/2000199.pdf. Peterborough: Natural England.
- Natural England, 2010. *Natural England Technical Information Note TIN069, Assessing the Effects of Onshore Wind Farms on Birds*. s.l.:s.n.
- Natural England, 2015. *Ribble and Alt Estuaries Ramsar: Site Information (formal)*. [Online] Available at: <http://www.gov.uk/government/publications/marine-conservation-advice-for-wetland-of-importance-ribble-and-alt-estuaries-uk11057/ribble-and-alt-estuaries-ramsar-site-information>
- Office of the Deputy Prime Minister, 2005. *Government Circular: Biodiversity and Geological Conservation- Statutory Obligations and Their Impacts on the Planning System*.

7.0 APPENDIX 1: TABLES AND FIGURES

Table 7.1: Other Bird Species Reported within a Two Kilometre Radius of the Site Boundary

Scientific Name	Species Name	Number of Records	Peak Count (Where Available)
<i>Accipiter nisus</i>	Sparrowhawk	28	1
<i>Acrocephalus schoenobaenus</i>	Sedge warbler	5	3
<i>Aegithalos caudatus</i>	Long-tailed tit	40	20
<i>Alcedo atthis</i>	Kingfisher	1	4
<i>Alectoris rufa</i>	Red-legged partridge	3	1
<i>Apus apus</i>	Swift	14	123
<i>Ardea cinerea</i>	Grey heron	14	3
<i>Asio flammeus</i>	Short-eared Owl	4	2
<i>Asio otus</i>	Little owl	28	2
<i>Bombycilla garrulus</i>	Waxwing	1	5
<i>Branta canadensis</i>	Canada goose	1	6
<i>Buteo buteo</i>	Buzzard	46	6
<i>Carduelis cabaret</i>	Lesser redpoll	2	1
<i>Carduelis cannabina</i>	Linnet	11	51
<i>Carduelis carduelis</i>	Goldfinch	62	60
<i>Carduelis chloris</i>	Greenfinch	38	17
<i>Carduelis spinus</i>	Siskin	3	2
<i>Certhia familiaris</i>	Treecreeper	5	1
<i>Circus cyaneus</i>	Hen harrier	1	1
<i>Columba livia</i>	Feral pigeon	6	11
<i>Columba oenas</i>	Stock dove	9	11
<i>Columba palumbus</i>	Woodpigeon	68	401
<i>Corvus corax</i>	Raven	3	2
<i>Corvus corone corone</i>	Carrion crow	15	22
<i>Corvus frugilegus</i>	Rook	51	107
<i>Corvus monedula</i>	Jackdaw	5	60
<i>Cuculus canorus</i>	Cuckoo	2	-
<i>Delichon urbica</i>	House martin	17	17
<i>Dendrocopos major</i>	Great Spotted Woodpecker	42	2
<i>Egretta garzetta</i>	Little Egret	4	1
<i>Emberiza citrinella</i>	Yellowhammer	16	4
<i>Erithacus rubecula</i>	Robin	47	31
<i>Falco columbarius</i>	Merlin	3	1
<i>Falco peregrinus</i>	Peregrine	2	1
<i>Falco tinnunculus</i>	Kestrel	29	2
<i>Fringilla coelebs</i>	Chaffinch	65	50
<i>Fringilla montifringilla</i>	Brambling	1	1
<i>Garrulus glandarius</i>	Jay	32	5
<i>Hirundo rustica</i>	Swallow	40	120
<i>Larus argentatus</i>	Herring gull	14	5
<i>Larus canus</i>	Common gull	6	23
<i>Larus melanocephalus</i>	Mediterranean gull	1	2
<i>Larus ridibundus</i>	Black-headed gull	14	29
<i>Milvus milvus</i>	Red kite	2	1
<i>Motacilla alba</i>	Pied wagtail	13	5
<i>Motacilla cinerea</i>	Grey wagtail	17	2
<i>Muscicapa striata</i>	Spotted flycatcher	1	2
<i>Numenius phaeopus</i>	Whimbrel	2	289
<i>Oenanthe oenanthe</i>	Wheatear	6	4
<i>Pandion haliaetus</i>	Osprey	1	1
<i>Parus ater</i>	Coal tit	18	2
<i>Parus caeruleus</i>	Blue tit	76	20
<i>Parus major</i>	Great tit	68	18
<i>Passer domesticus</i>	House sparrow	42	67
<i>Passer montanus</i>	Tree sparrow	19	13

Scientific Name	Species Name	Number of Records	Peak Count (Where Available)
<i>Perdix perdix</i>	Grey partridge	7	11
<i>Phalacrocorax carbo</i>	Cormorant	1	2
<i>Phasianus colchicus</i>	Pheasant	8	4
<i>Phoenicurus phoenicurus</i>	Redstart	1	1
<i>Phylloscopus collybita</i>	Chiffchaff	18	6
<i>Phylloscopus sibilatrix</i>	Wood warbler	1	1
<i>Phylloscopus trochilus</i>	Willow warbler	12	2
<i>Pica pica</i>	Magpie	27	9
<i>Prunella modularis</i>	Dunnock	47	11
<i>Pyrrhula pyrrhula</i>	Bullfinch	1	1
<i>Regulus regulus</i>	Goldcrest	13	2
<i>Riparia riparia</i>	Sand martin	1	6
<i>Saxicola rubetra</i>	Whinchat	1	1
<i>Scolopax rusticola</i>	Woodcock	4	4
<i>Sitta europaea</i>	Nuthatch	21	2
<i>Streptopelia decaocto</i>	Collared dove	32	48
<i>Strix aluco</i>	Tawny owl	8	2
<i>Sturnus vulgaris</i>	Starling	37	185
<i>Sylvia atricapilla</i>	Blackcap	16	3
<i>Sylvia communis</i>	Whitethroat	12	6
<i>Sylvia curruca</i>	Lesser whitethroat	7	2
<i>Tringa ochropus</i>	Green sandpiper	4	2
<i>Troglodytes troglodytes</i>	Wren	30	22
<i>Turdus iliacus</i>	Redwing	18	90
<i>Turdus merula</i>	Blackbird	75	58
<i>Turdus philomelos</i>	Song thrush	43	7
<i>Turdus pilaris</i>	Fieldfare	19	150
<i>Turdus viscivorus</i>	Mistle thrush	19	7
<i>Tyto alba</i>	Barn owl	6	4

Table 7.2: Bird Species Detected During the Autumn Passage and Wintering Bird Surveys 2015/2016

Scientific Name	Common Name	Survey 1 Detected during survey ¹ ?	Survey 2 Detected during survey ¹ ?	Survey 3 Detected during survey ¹ ?	Survey 4 Detected during survey ¹ ?	Survey 5 Detected during survey ¹ ?	Survey 6 Detected during survey ¹ ?	Survey 7 Detected during survey ¹ ?	Survey 8 Detected during survey ¹ ?	Survey 9 Detected during survey ¹ ?	Survey 10 Detected during survey ¹ ?	Survey 11 Detected during survey ¹ ?	Survey 12 Detected during survey ¹ ?	Migratory overwintering species as defined by RSPB?	BOCC Status ²	Priority Species?
<i>Larus ridibundus</i>	Black-headed gull	No	Yes (70+)	Yes (277+)	Yes (26+)	Yes (473+)	Yes (203+)	Yes (312+)	Yes (453+)	Yes (550+)	Yes (613+)	Yes (340+)	Yes (193)	No	Amber	No
<i>Limosa limosa</i>	Black-tailed godwit	No	No	No	No	No	No	No	No	No	No	No	Yes (12)	Yes	Red	Yes
<i>Pyrrhula pyrrhula</i>	Bullfinch	No	No	No	No	No	No	Yes (2)	No	No	No	No	No	No	Amber	Yes
<i>Buteo buteo</i>	Buzzard	Yes (1)	Yes (1)	Yes (1)	No	No	Yes (1)	Yes (1)	No	No	No	No	No	No	Green	No
<i>Branta canadensis</i>	Canada goose	No	No	No	No	No	No	No	No	No	No	No	Yes (2)	No	Green	No
<i>Larus canus</i>	Common gull	Yes (300+)	Yes (400+)	Yes (33+)	No	Yes (221+)	Yes (80+)	Yes (93+)	Yes (140+)	Yes (77+)	Yes (113+)	Yes (32)	Yes (63)	No	Amber	No
<i>Prunella modularis</i>	Dunnock	Yes (1)	Yes (1)	Yes (3)	Yes (1)	Yes (2)	Yes (1)	Yes (3)	Yes (2)	Yes (4)	Yes (6)	Yes (5)	Yes (4)	No	Amber	Yes
<i>Turdus pilaris</i>	Fieldfare	Yes (40+)	Yes (5)	No	No	No	Yes (80+)	No	No	No	No	No	No	Yes	Red	No
<i>Carduelis carduelis</i>	Goldfinch	No	No	No	No	No	No	No	No	No	Yes (1)	No	No	No	Green	No
<i>Larus marinus</i>	Great black-backed gull	No	No	No	No	No	No	No	Yes (1)	No	No	No	No	No	Amber	No
<i>Ardea cinerea</i>	Grey heron	No	Yes (1)	No	No	Yes (3)	Yes (4)	No	No	Yes (1)	Yes (1)	Yes (2)	Yes (3)	No	Green	No
<i>Perdix perdix</i>	Grey partridge	Yes (2)	No	No	No	No	No	No	No	No	No	No	No	No	Red	Yes
<i>Larus argentatus</i>	Herring gull	No	Yes (1)	Yes (2)	Yes (6)	Yes (2)	Yes (5)	Yes (22)	Yes (21)	Yes (3)	Yes (1)	Yes (13)	Yes (3)	No	Red	Yes
<i>Passer domesticus</i>	House sparrow	Yes (10)	No	Yes (10)	Yes (2)	Yes (3)	No	Yes (6)	No	Yes (15)	Yes (14)	Yes (13)	Yes (17)	No	Red	Yes
<i>Falco tinnunculus</i>	Kestrel	Yes (3)	No	No	No	No	No	Yes (1)	No	Yes (1)	No	No	No	No	Amber	No
<i>Alcedo atthis</i>	Kingfisher	No	No	No	No	No	Yes (1)	Yes (1)	No	No	No	No	No	No	Amber	No
<i>Vanellus vanellus</i>	Lapwing	Yes (170+)	No	No	No	No	Yes (5)	Yes (32)	Yes (43)	Yes (34)	Yes (25)	Yes (32)	Yes (10)	No	Red	Yes
<i>Larus fuscus</i>	Lesser black-backed gull	No	Yes (2)	Yes (5)	Yes (11)	Yes (6)	Yes (8)	Yes (16)	Yes (13)	Yes (10)	Yes (16)	Yes (11)	Yes (14)	No	Amber	No
<i>Pica pica</i>	Magpie	No	No	No	No	No	No	No	No	No	Yes (7)	No	No	No	Green	No
<i>Anas platyrhynchos</i>	Mallard	Yes (7)	No	Yes (4)	Yes (1)	Yes (6)	Yes (12)	No	No	Yes (2)	Yes (4)	Yes (8)	Yes (6)	No	Amber	No
<i>Larus melanocephalus</i>	Mediterranean gull	No	No	No	No	No	No	No	No	No	No	Yes (1)	No	Yes	Amber	No
<i>Turdus viscivorus</i>	Mistle thrush	No	No	No	Yes (1)	No	No	No	No	No	No	No	No	No	Red	No
<i>Haematopus ostralegus</i>	Oystercatcher	No	No	No	No	No	No	No	No	No	No	Yes (6)	Yes (4)	No	Amber	No
<i>Anser brachyrhynchus</i>	Pink-footed goose	Yes (990+ in flight over site)	Yes (280+ in flight over site)	No	No	Yes (100+ in flight over site)	Yes (9 in flight over site)	Yes (128+ in flight over site)	Yes (386+ in flight over site)	Yes (64 in flight over site)	No	No	No	Yes	Amber	No
<i>Corvus corax</i>	Raven	No	No	No	No	No	No	Yes (1)	No	No	No	No	No	No	Green	No
<i>Emberiza schoeniclus</i>	Reed bunting	Yes (1)	No	No	Yes (2)	Yes (3)	Yes (22+)	Yes (2)	Yes (2)	Yes (2)	Yes (2)	Yes (2)	Yes (1)	No	Amber	Yes
<i>Tadorna tadorna</i>	Shelduck	No	No	No	No	No	No	No	No	No	Yes (2)	Yes (2)	No	No	Amber	No
<i>Alauda arvensis</i>	Skylark	Yes (2)	Yes (2)	Yes (1)	No	No	Yes (1)	No	No	No	No	No	No	No	Red	Yes
<i>Gallinago gallinago</i>	Snipe	No	No	No	Yes (3)	No	Yes (1)	No	No	No	No	No	No	No	Amber	No
<i>Turdus philomelos</i>	Song thrush	No	Yes (1)	Yes (1)	No	Yes (2)	No	Yes (4)	Yes (1)	Yes (2)	Yes (4)	Yes (1)	Yes (1)	No	Red	Yes
<i>Accipiter nisus</i>	Sparrowhawk	No	No	Yes (1)	Yes (1)	No	No	No	No	No	No	No	No	No	Green	No
<i>Sturnus vulgaris</i>	Starling	Yes (20+)	No	Yes (13)	No	Yes (340+)	Yes (40+)	Yes (250+)	Yes (70+)	No	Yes (465+)	Yes (400+)	Yes (3)	No	Red	Yes
<i>Anas crecca</i>	Teal	Yes (2)	No	Yes (2)	No	Yes (9)	Yes (28)	Yes (14)	Yes (15)	Yes (27)	Yes (19)	Yes (16)	Yes (16)	No	Amber	No
<i>Scolopax rusticola</i>	Woodcock	No	No	Yes (1)	No	No	No	No	No	No	No	No	No	No	Red	No

¹Number in brackets indicates the number of birds recorded, refer to Figures 3 to 14.

²BOCC: Birds of Conservation Concern 2009.

Figure 1: Google Earth Image to Illustrate the Site Boundary and Study Zone

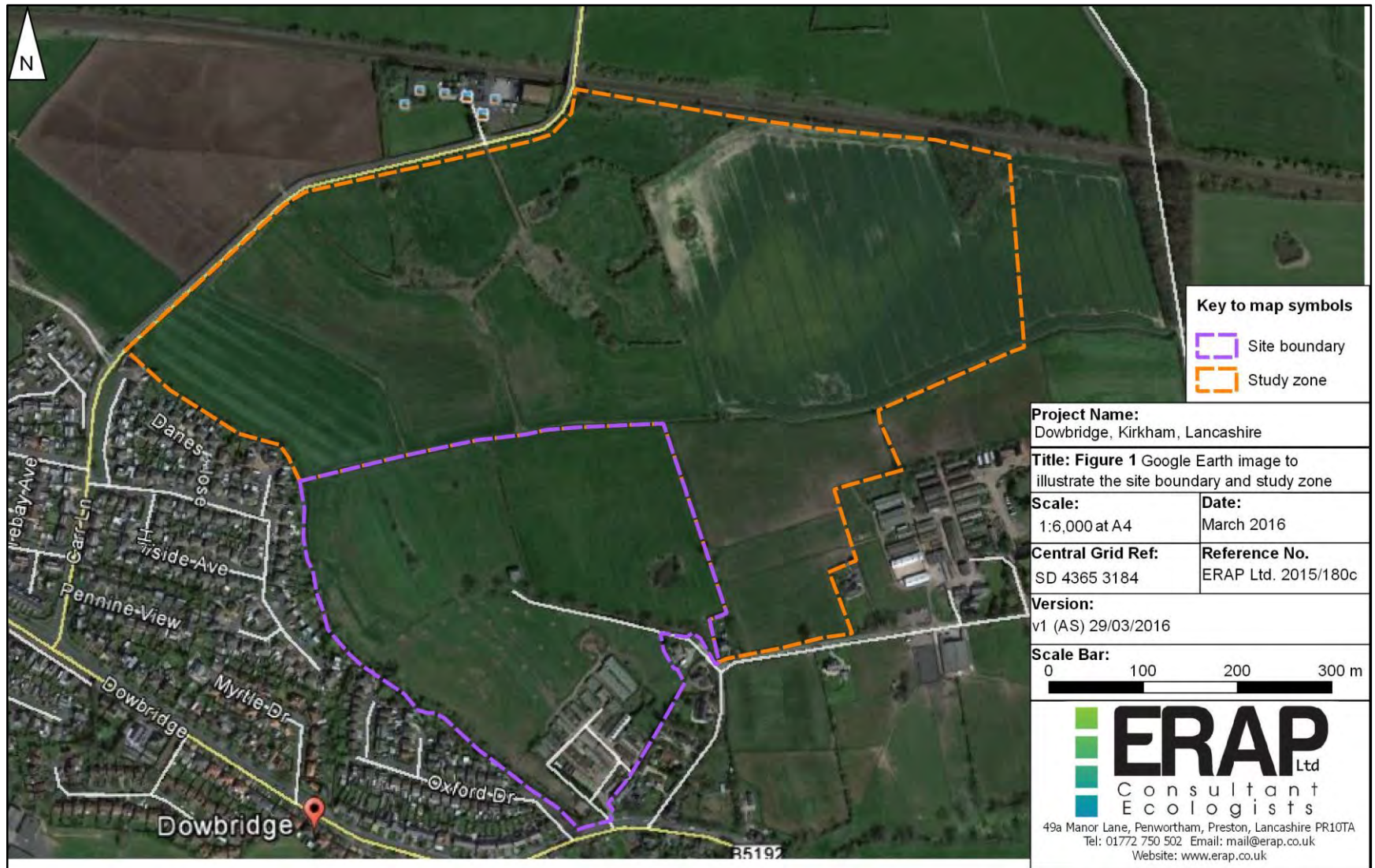


Figure 2: Google Earth Image to Illustrate the Designated Sites in the Wider Area in relation to the Site Boundary and Study Zone



Figure 3: Wintering Bird Survey 1

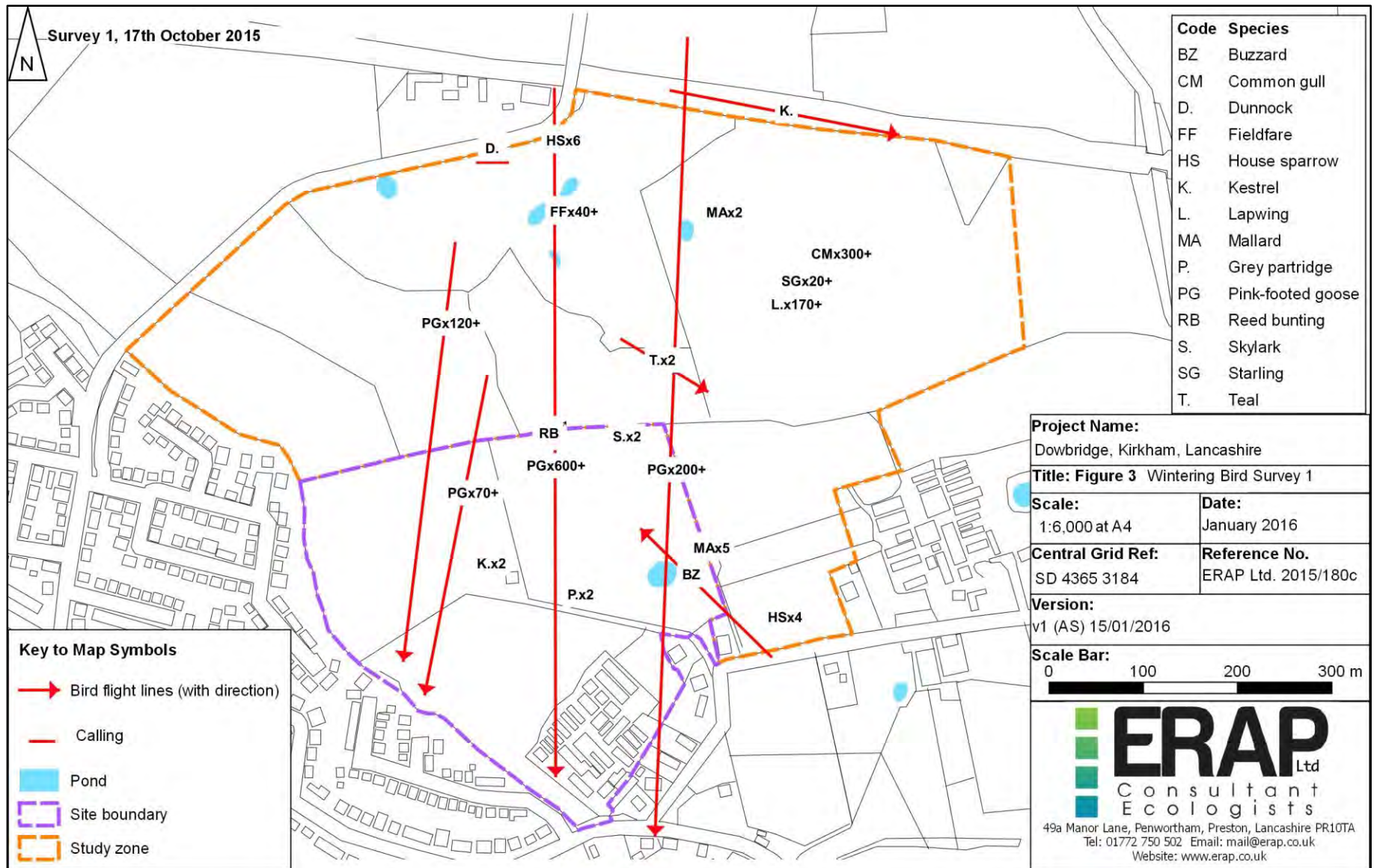


Figure 4: Wintering Bird Survey 2

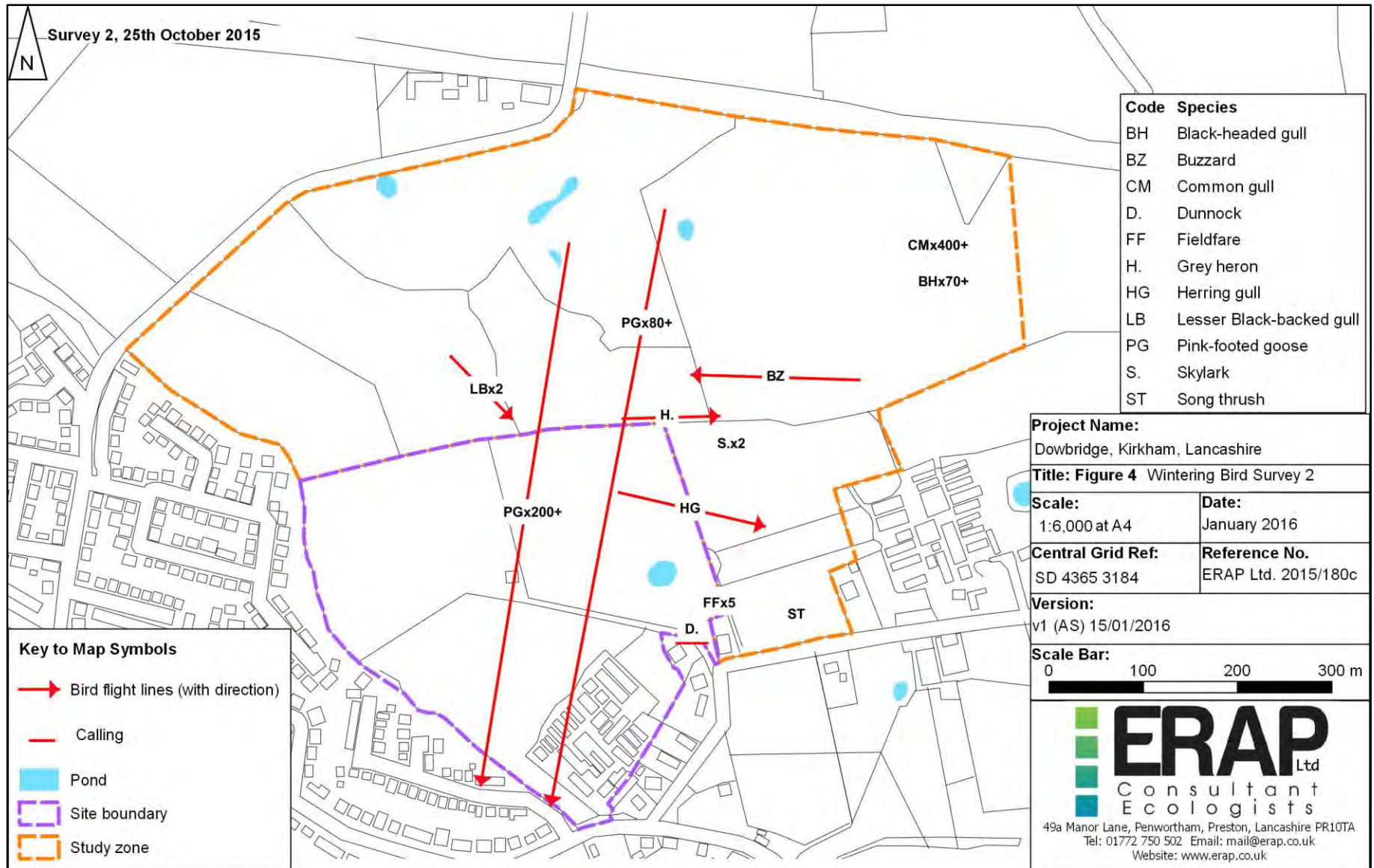


Figure 5: Wintering Bird Survey 3

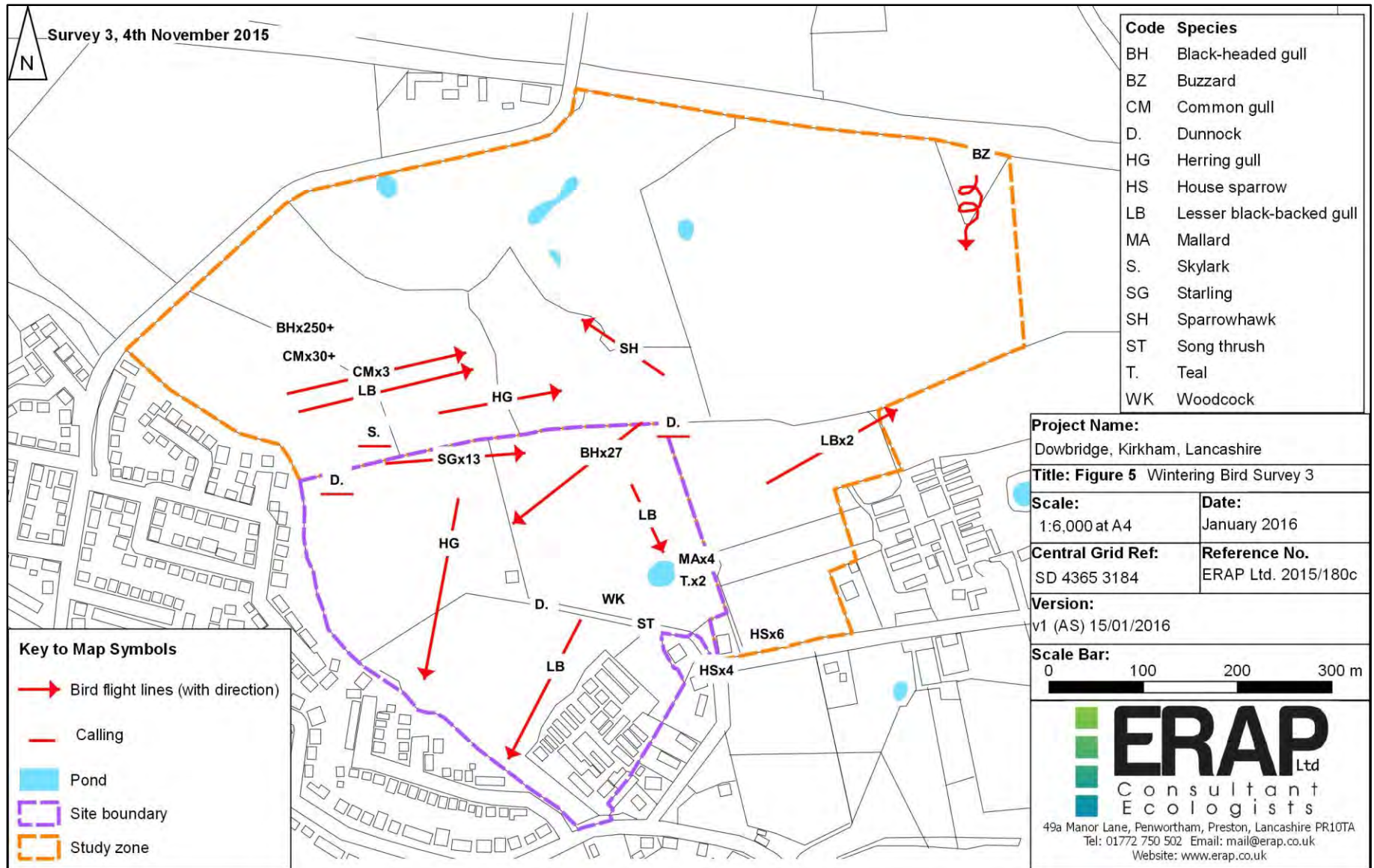


Figure 6: Wintering Bird Survey 4

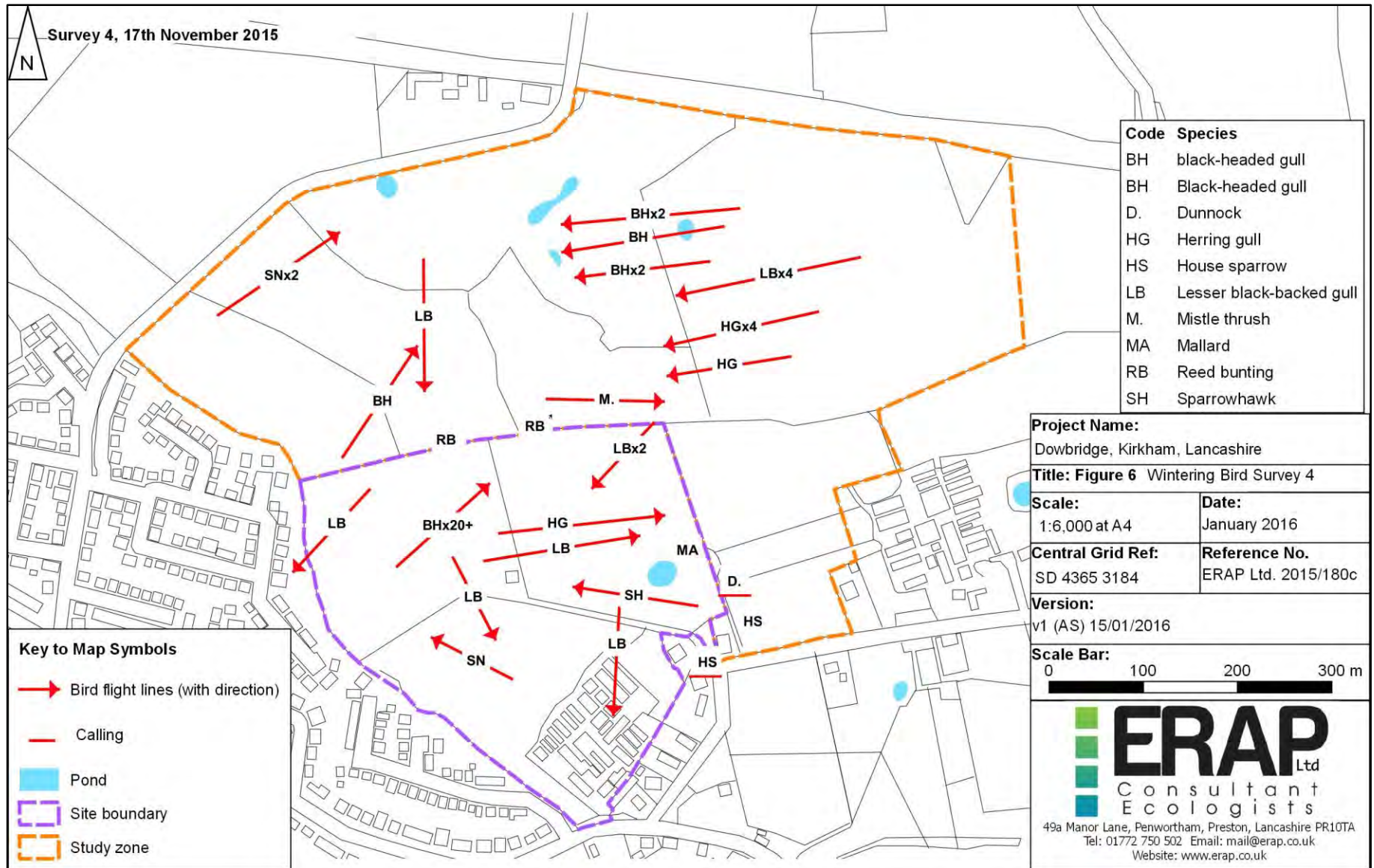


Figure 7: Wintering Bird Survey 5

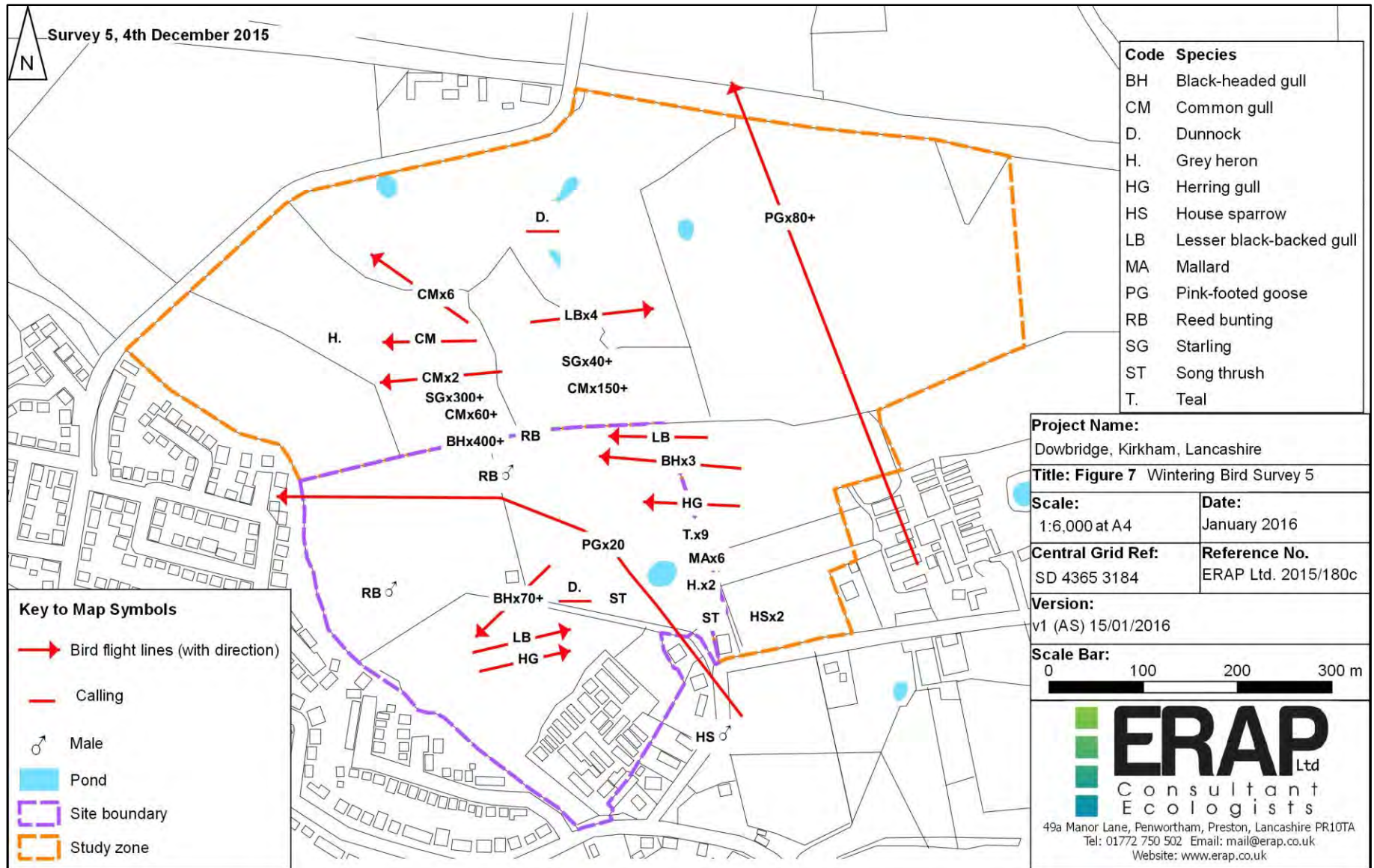


Figure 8: Wintering Bird Survey 6

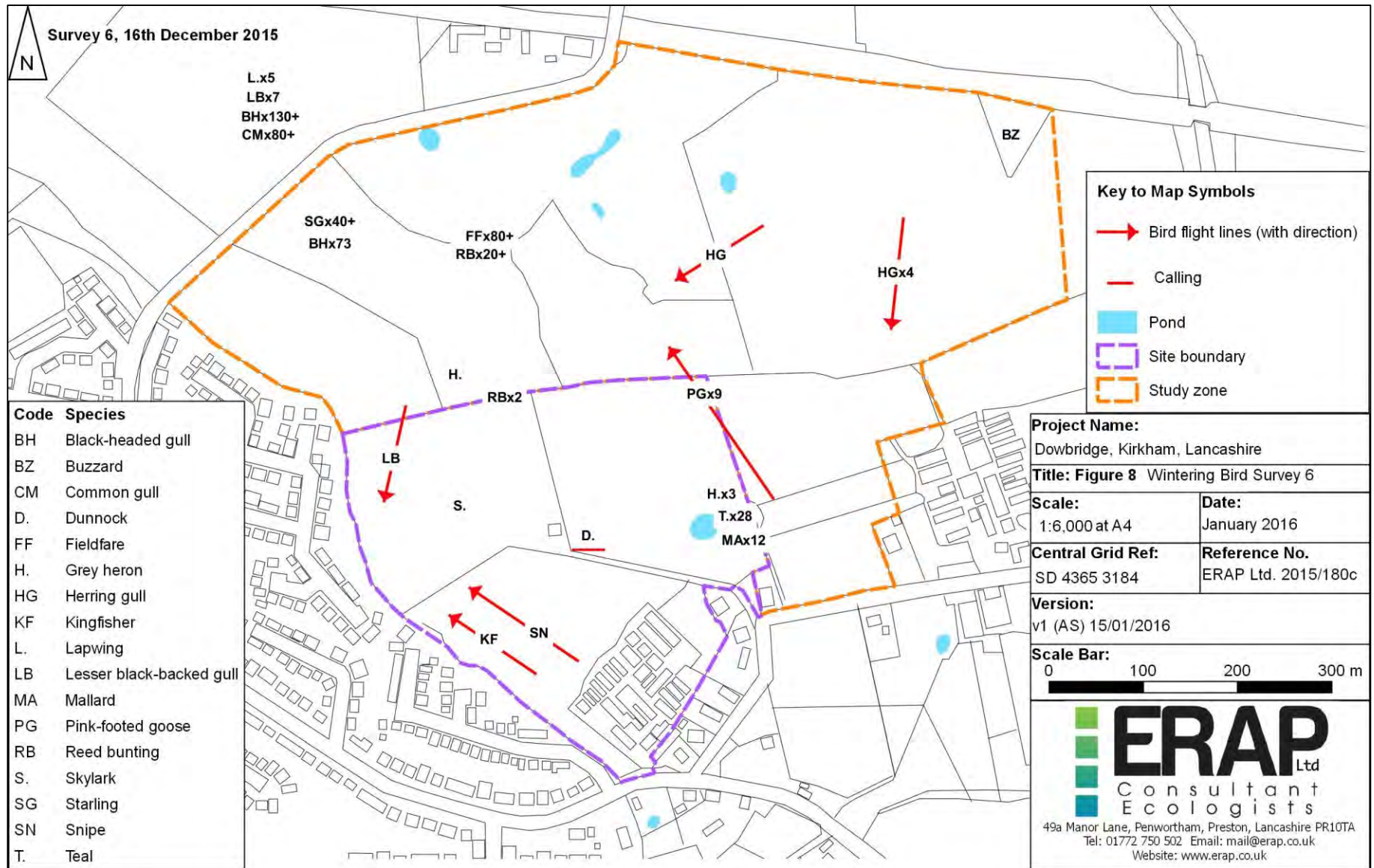


Figure 9: Wintering Bird Survey 7

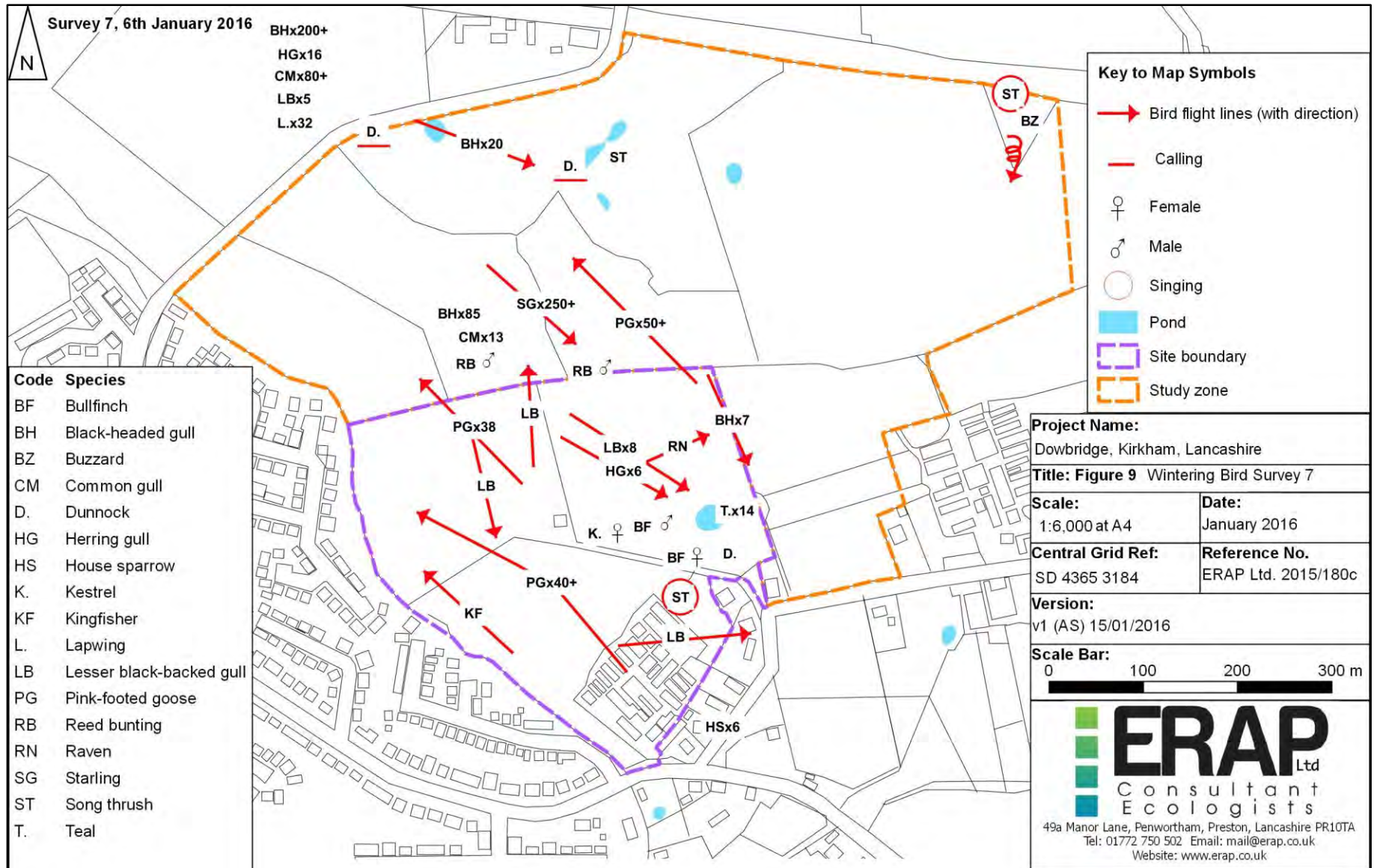


Figure 10: Wintering Bird Survey 8

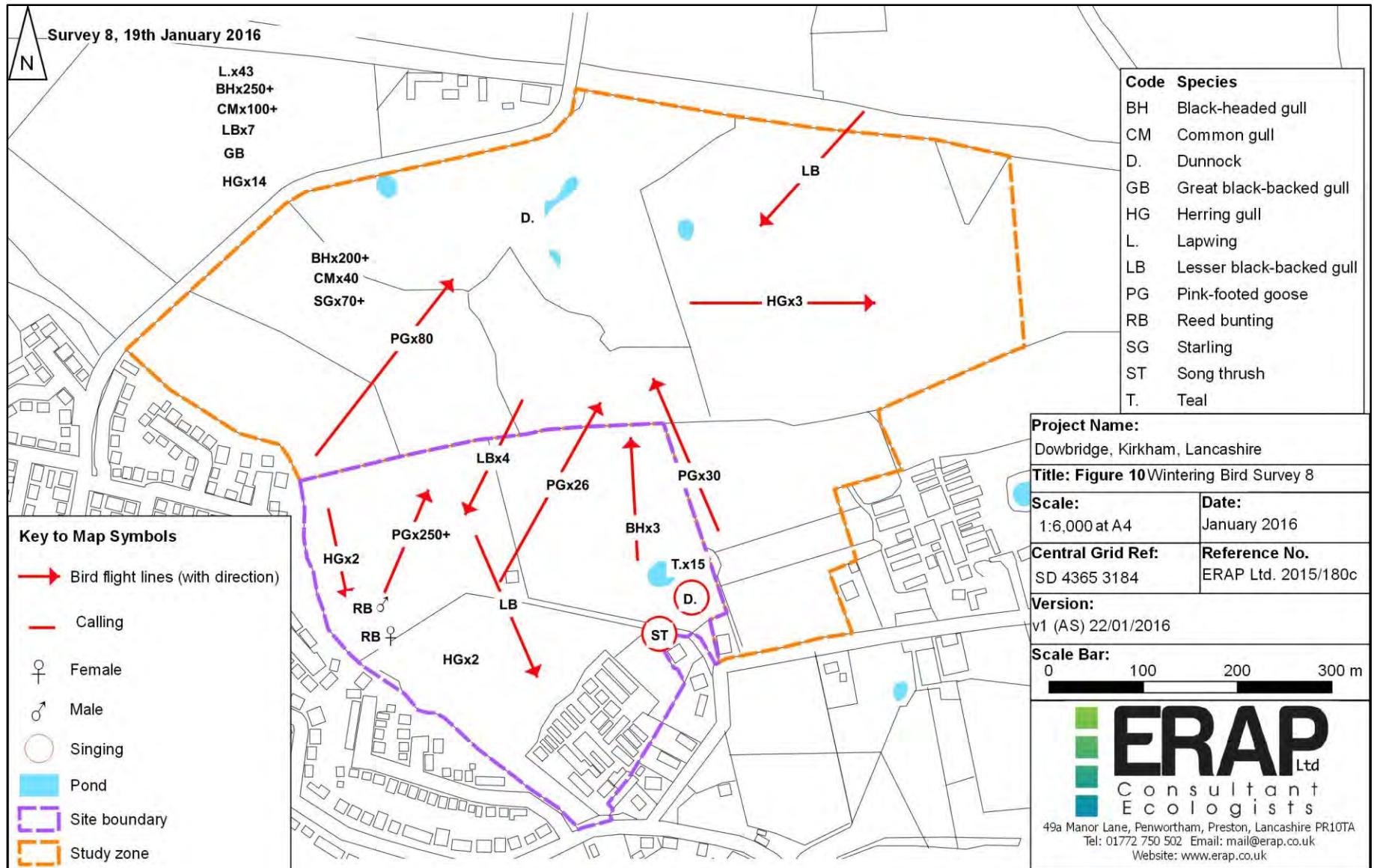


Figure 11: Wintering Bird Survey 9

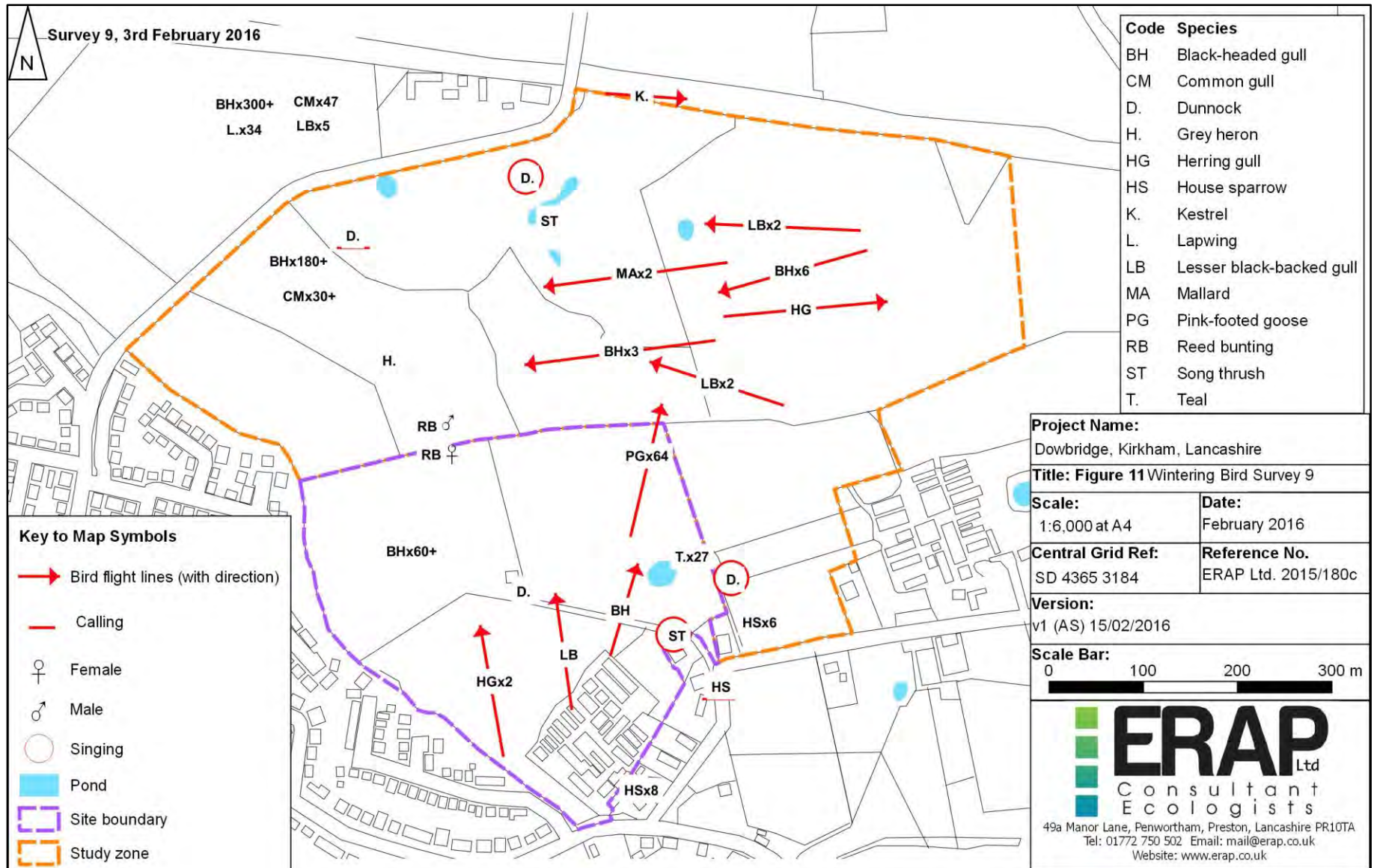


Figure 12: Wintering Bird Survey 10

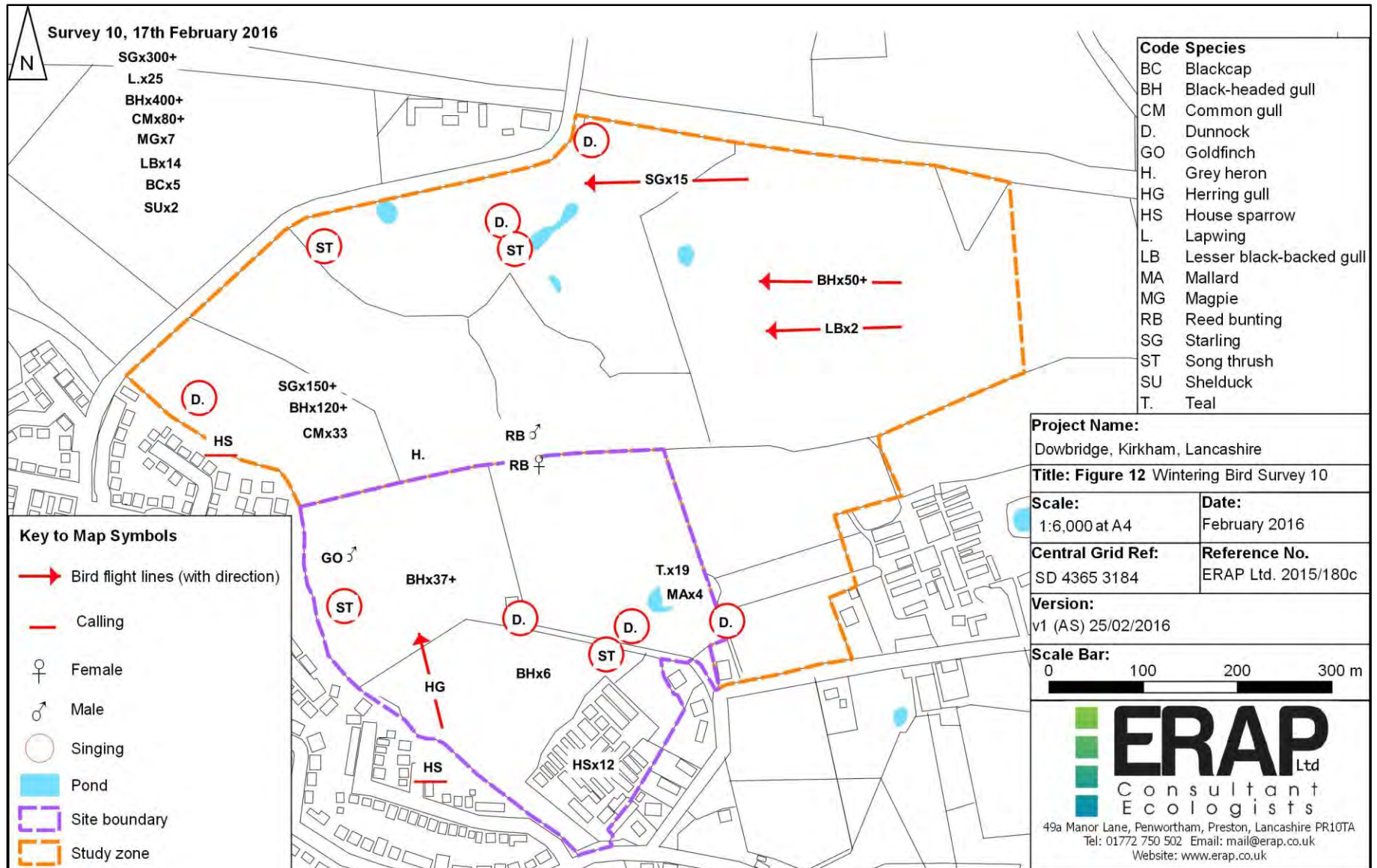


Figure 13: Wintering Bird Survey 11

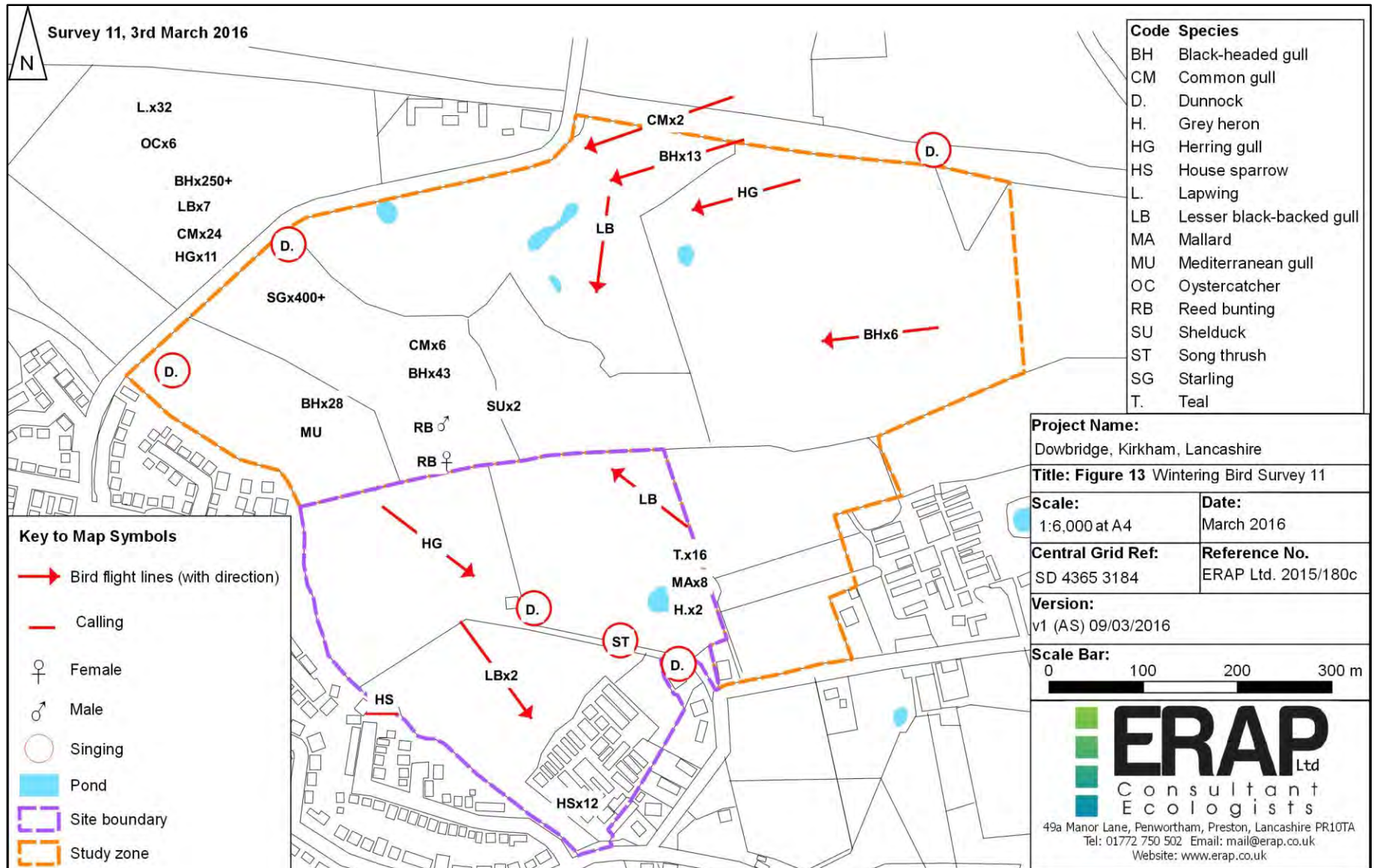
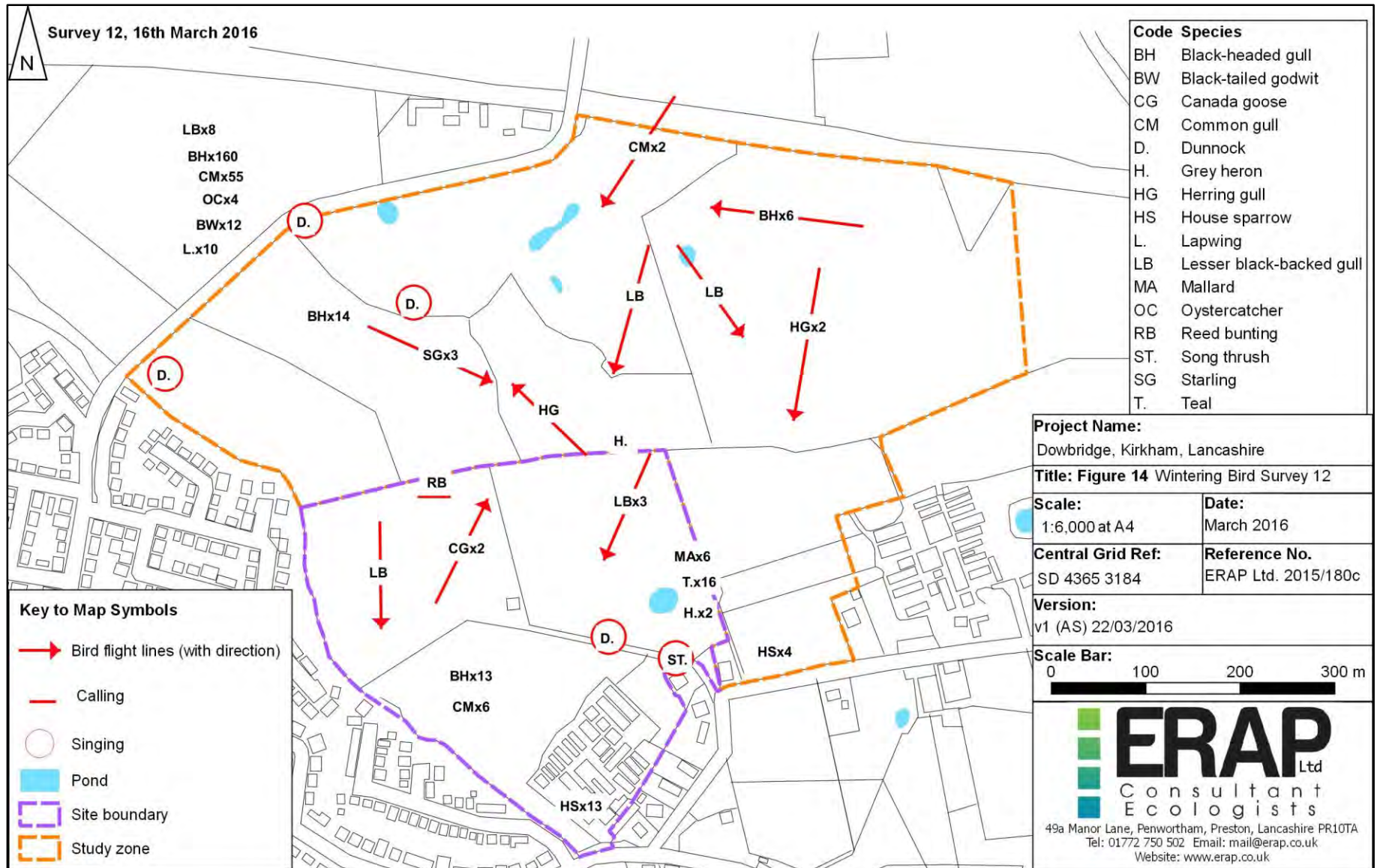


Figure 14: Wintering Bird Survey 12



8.0 APPENDIX 2: CITATIONS FOR DESIGNATED SITES

8.1 Newton Marsh SSSI Citation

File ref: (L) SD
42/2

County:	Lancashire	Site Name:	Newton Marsh
District:	Fylde		
Status:	Site of Special Scientific Interest (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 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, 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, spotted redshank, common sandpiper and sanderling.

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, coot, skylark, yellow wagtail and meadow pipit, with less frequent breeding records for snipe, little grebe, mute swan, shelduck, reed bunting, oystercatcher and corn bunting.

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.

8.2 Wyre Estuary SSSI Citation

		File ref:
County:	Lancashire	Site Name: Wyre Estuary
District:	Wyre, Fylde	
Status:	Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act, 1981, as amended.	
Local Planning Authority:	Fylde Borough Council Wyre Borough Council	
National Grid Reference:	SD 350440	Area: 1,488.03 (ha) 3,675.43 (ac)
Ordnance Survey Sheet 1:50 000	102	1:10 000 SD 33 NE SD 34 NE SD 34 NW SD 34 SE SD 34 SW SD 35 SW
Date Notified (Under 1949 Act):	–	Date of Last Revision: –
Date Notified (Under 1981 Act):	27 January 1995	Date of Last Revision: –

Other Information:

1. The site forms part of 'Morecambe Bay (including Wyre-Lune)' listed in 'A Nature Conservation Review', edited by D. A. Ratcliffe (1977), Cambridge University Press.
2. The site is adjacent to the Lune Estuary Site of Special Scientific Interest and incorporates Barnaby Sands Marsh and Burrows Marsh SSSIs.
3. The site is an integral part of the Morecambe Bay complex of estuaries and shore which collectively meet the criteria for inclusion within the Morecambe Bay Wetland of International Importance under the Ramsar Convention, and as a Special Protection Area under Article 4 of the European Community Directive 79/409/EEC on the Conservation of Wild Birds.

Description and Reasons for Notification:

The Wyre Estuary, lying just south of Lune Estuary is an integral part of Morecambe Bay, one of the two largest areas of intertidal estuarine flats in Britain (the other being the Wash). The whole estuarine complex is of international significance for wintering wading birds and of national significance for wintering wildfowl. The Wyre in its own right is of national importance for wintering and passage black-tailed godwit, wintering turnstone and for wintering teal in times of hard weather. The Wyre Estuary, including those parts within Barnaby Sands Marsh and Burrows Marsh Sites of Special

Scientific Interest, supports the largest area of ungrazed saltmarsh in North West England. The transitions from low to upper marsh are well developed and there are extensive transitions to freshwater swamp communities above high water mark.

The most extensive areas of saltmarsh are found on the east side of the estuary between Barnaby Sands and Staynall, on the west side north of Stannah and on the north side upstream of Shard Bridge. Much of the latter has recently developed on actively accreting mud.

The seaward edge of the saltmarsh is dominated by those species specialised to colonising bare mud and withstanding frequent tidal inundation – the glassworts *salicornia* spp., annual sea-bite *Suaeda maritima* and common saltmarsh-grass *Puccinellia maritima*. Common cord-grass *Spartina anglica* is abundant on some of the marshes but appears to be declining. Higher up the marshes there are extensive areas of saltmarsh communities characterised by grazing-sensitive species. The Wyre supports the largest area in Lancashire of saltmarsh dominated by sea-purslane *Halimione portulacoides* and also the largest area of a mixed community distinctive for the presence of common sea-lavender *Limonium vulgare*, sea plantain *Plantago maritima* and sea arrowgrass *Triglochin maritima*. The nationally scarce lax-flowered sea-lavender *Limonium humile* is also present. Most of the sea-purslane dominated saltmarsh is downstream of Shard Bridge. Upstream, especially on the north side, there are extensive areas dominated by sea aster *Aster tripolium*.

On the upper saltmarsh there is a mixture of communities with species typical of a less saline influence. Saltmarsh rush *Juncus gerardi*, sea rush *Juncus maritimus*, red fescue *Festuca rubra* and spear-leaved orache *Atriplex prostrata* are all present and, locally, there is long-bracted sedge *Carex extensa*. Of particular interest are the extensive transitions to brackish or freshwater habitats on the landward side. Here swamp is the dominant community with common reed *Phragmites australis* or sea club-rush *Scirpus maritimus*. In places the landward transition is to sea couch *Elymus pycnanthus*. Other transition species present include hemlock water-dropwort *Oenanthe crocata* and parsley water-dropwort *O. lachenalii*.

Ornithologically the Wyre Estuary is an integral part of the Morecambe Bay–Lune–Wyre system, the second most important intertidal area in Britain after the Wash for wintering and passage wading birds. The Wyre is nationally important in its own right for wintering and passage black-tailed godwit and wintering turnstone (numbers exceeding 1% of the British population). In spring and autumn the estuary regularly supports 200 black-tailed godwit and during the winter months about 100 feed and roost in the estuary. Peak numbers of turnstone feeding in the estuary have in recent years averaged at 640.

The Wyre is also known to be an important hard weather roost for teal. Large numbers of lapwing and golden plover use the estuary for roosting at low tide. Numbers of the former have in some years approached 1% of the UK population.

Movements of roosting and feeding birds within the Wyre and between this and other estuaries are complex with different parts of the estuary being important for birds at different stages of the tide. The major high tide roost in Armhill with smaller ones at Stannah, Burrows Marsh, Barnaby Sands and Knott End Skears. On spring tides birds are displaced from the smaller roosts to Armhill which, on occasions, can hold over one thousand birds. Along with black-tailed godwit, turnstone, lapwing and golden plover, other wading birds which regularly use the estuary include oystercatcher, redshank and dunlin. The oystercatchers and turnstones feed at the mouth of the estuary on the rocky skears at Rossall Point and Knott End. Golden plover and lapwing roost at low tide around the upstream of Shard Bridge, the former feeding on the Lune estuary to the north at high tide. Waders roosting on the Wyre may be using other parts of the Morecambe Bay complex at low tide.

8.3 Ribble Estuary SSSI Citation

COUNTY: LANCASHIRE & MERSEYSIDE **SITE NAME:** RIBBLE ESTUARY

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

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981. Includes the Ribble Marshes 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 greenmarsh 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 Marshes 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 pinkfooted geese.

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

The estuary supports internationally important numbers of the following waterfowl: Bewick's swan, pink-footed goose, shelduck, wigeon, oystercatcher, knot, sanderling, dunlin, black-tailed and bar-tailed godwit as well as smaller populations of lapwing, curlew, grey plover and golden plover. 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, common tern and redshank.

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, thrift, sea aster and the brackish water crowfoot (*Ranunculus baudotti*), a particularly scarce plant in NW England, occur here. These areas are important as a major high tide roost for waterfowl, especially redshank, grey plover, black-tailed godwit, dunlin, oystercatcher, Bewick's swan and wigeon. They also support a diverse breeding bird community which includes skylark, lapwing, teal, shoveler, ringed plover and snipe.

8.4 Ribble and Alt Estuaries SPA Citation

SPA description

(information as published 2001)

Ribble and Alt Estuaries

Country	England
Unitary Authority	Lancashire, Sefton
SPA status	Classified 16/02/1995
Latitude	53 42 20 N
Longitude	02 59 14 W
SPA EU code	UK9005103
Area (ha)	12361.13
Component SSSI/ASSIs	Ribble Estuary Sefton Coast



The Ribble and Alt Estuaries SPA lies on the coast of Lancashire and Merseyside in north-west England. It comprises two estuaries, of which the Ribble Estuary is by far the larger, together with an extensive area of sandy foreshore along the Sefton Coast. It forms part of the chain of western SPAs that fringe the Irish Sea. There is considerable interchange in the movements of wintering birds between this site and Morecambe Bay, the Mersey Estuary, the Dee Estuary and Martin Mere. A large proportion of the SPA is within the Ribble Estuary National Nature Reserve. The site consists of extensive sand- and mud-flats and, particularly in the Ribble Estuary, large areas of saltmarsh. There are also areas of coastal grazing marsh located behind the sea embankments. The intertidal flats are rich in invertebrates, on which waders and some of the wildfowl feed. The highest densities of feeding birds are on the muddier substrates of the Ribble, though sandy shores throughout are also used. The saltmarshes and coastal grazing marshes support high densities of grazing and seed-eating wildfowl and these, together with the intertidal sand- and mud-flats, are used as high-tide roosts. Important populations of waterbirds occur in winter, including swans, geese, ducks and waders. The SPA is also of major importance during the spring and autumn migration periods, especially for wader populations moving along the west coast of Britain. The larger expanses of saltmarsh and areas of coastal grazing marsh support breeding birds during the summer, including large concentrations of gulls and terns. These seabirds feed both offshore and inland, outside the SPA. Several species of waterbirds (notably Pink-footed Goose *Anser brachyrhynchus*) utilise feeding areas on agricultural land outside the SPA boundary.

For more information see [Phased, extended and subsumed SPAs](#)

Qualifying species

For individual species accounts visit the [Species Accounts section](#)

This site 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:

During the breeding season;

Common Tern *Sterna hirundo*, 182 pairs representing at least 1.5% of the breeding population in Great Britain (Count, as at 1996)

Ruff *Philomachus pugnax*, 1 pairs representing at least 9.1% of the breeding population in Great Britain (Count as at late 1980's)

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)

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:

During the breeding season;

Lesser Black-backed Gull *Larus fuscus*, 1,800 pairs representing at least 1.5% of the breeding Western Europe/Mediterranean/Western Africa population (Count, as at 1993)

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 totanus*, 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 seabird assemblage of international importance

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

During the breeding season, the area regularly supports 29,236 individual seabirds including: Black-headed Gull *Larus ridibundus*, Lesser Black-backed Gull *Larus fuscus*, Common Tern *Sterna hirundo*.

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: Grey Plover *Pluvialis squatarola*, Whooper Swan *Cygnus cygnus*, Golden Plover *Pluvialis apricaria*, Bar-tailed Godwit *Limosa lapponica*, Pink-footed Goose *Anser brachyrhynchus*, Shelduck *Tadorna tadorna*, Wigeon *Anas penelope*, Teal *Anas crecca*, Bewick's Swan *Cygnus columbianus bewickii*, Oystercatcher *Haematopus ostralegus*, Curlew *Numenius arquata*, Knot *Calidris canutus*, Sanderling *Calidris alba*, Dunlin *Calidris alpina alpina*, Black-tailed Godwit *Limosa limosa islandica*, Redshank *Tringa totanus*, Cormorant *Phalacrocorax carbo*, Common Scoter *Melanitta nigra*, Lapwing *Vanellus vanellus*, Pintail *Anas acuta*.

Note:

Many designated sites are on private land: the listing of a site in these pages does not imply any right of public access.

Note that sites selected for waterbird species on the basis of their occurrence in the breeding, passage or winter periods also provide legal protection for these species when they occur at other times of the year.

8.5 Ribble and Alt Estuaries Ramsar Citation

Ribble and Alt Estuaries Ramsar site information

Overarching site	Ribble and Alt Estuaries
Site name	Ribble and Alt Estuaries
Designation type	Ramsar
Site identification	UK11057
Designation date	16 February 1995
Qualifying features	Natterjack toad, <i>Epidalea calamita</i>
-	Bar-tailed godwit, <i>Limosa lapponica</i>
-	Bewick's swan, <i>Cygnus columbianus bewickii</i>
-	Black-tailed godwit, <i>Limosa limosa islandica</i>
-	Dunlin, <i>Calidris alpina alpina</i>
-	Grey plover, <i>Pluvialis squatarola</i>
-	Knot, <i>Calidris canutus islandica</i>
-	Lesser black-backed gull, <i>Larus fuscus graellsii</i>
-	Oystercatcher, <i>Haematopus ostralegus</i>
-	Pink-footed goose, <i>Anser brachyrhynchus</i>
-	Pintail, <i>Anas acuta</i>
-	Redshank, <i>Tringa totanus</i>
-	Ringed plover, <i>Charadrius hiaticula</i>
-	Sanderling, <i>Calidris alba</i>
-	Shelduck, <i>Tadorna tadorna</i>
-	Teal, <i>Anas crecca</i>

-	Whooper swan, <i>Cygnus cygnus</i>
-	Wigeon, <i>Anas penelope</i>
-	Breeding waterbird assemblage
-	Non-breeding waterbird assemblage
Feature condition status	This site has not had a formal condition assessment
Designated area	The Ramsar now covers 13,464.10ha. It includes both marine areas (ie land covered continuously or intermittently by tidal waters) and land which is not subject to tidal influence.
Moderations/boundary changes	The Ribble and Alt Estuaries were classified as a Ramsar on the 16 February 1995. An extension to the Ribble and Alt Estuaries Ramsar, to include the Sefton Coast SSSI, was classified on the 28 November 2002.
Names of component sites of special scientific interest	Ribble Estuary SSSI
-	Sefton Coast SSSI
Nearby and overlapping Marine Protected Areas	Liverpool Bay/Bae Lerpwl SPA
-	Mersey Narrows and North Wirral Foreshore SPA