

## Assessment of Potentially Functionally Linked Land to Inform Lancaster City Council's Local Plan

### Wintering Bird Surveys - November 2024 to March 2025



Lapwing - photographed by Paul Barrington (GMEU)

June 2025

Lancaster Wintering Bird Surveys 2024-2025

For

Lancaster City Council

By

Greater Manchester Ecology Unit (GMEU)

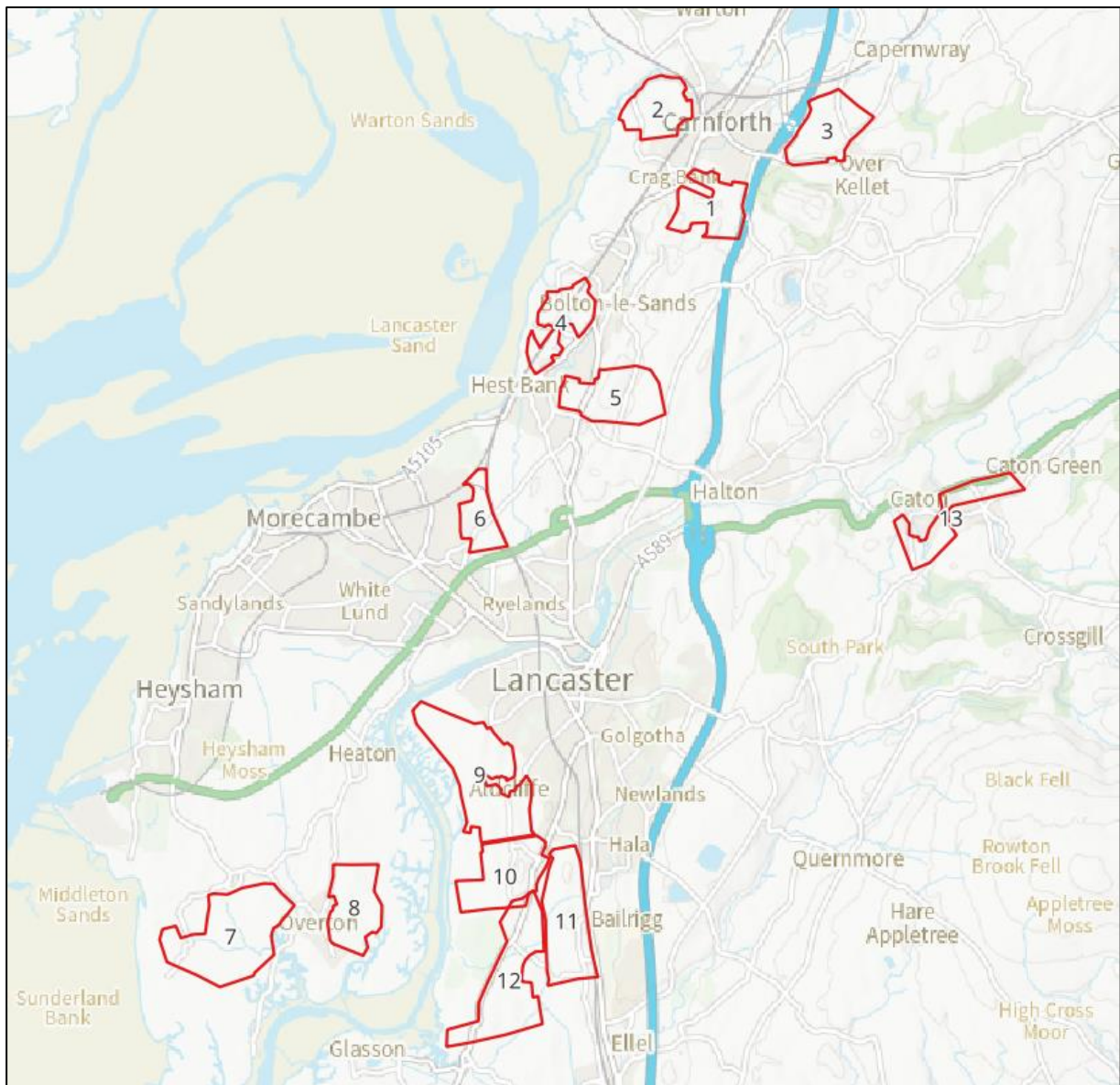
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June 2025

## 1 INTRODUCTION

- 1.1 Greater Manchester Ecology Unit (GMEU) were commissioned by Lancaster City Council to undertake wintering bird surveys of areas being considered for potential allocation for development in a future Local Plan and to inform the Council more generally about the use of these areas by wintering birds.
- 1.2 The primary objective of the wintering bird surveys was to assess the likelihood of sites to be functionally linked to the Morecambe Bay and Duddon Estuary Special Protection Area (SPA) and Morecambe Bay Ramsar site. The sites of interest were provided by Lancaster City Council and the locations are shown in Figure 1. The designated site boundaries are shown in figure 2 and further information regarding the designated sites is provided in Section 2 of this report.
- 1.3 GMEU have undertaken previous wintering bird surveys across the Lancaster district. This includes in 2017-2018 and in 2020-2021. The previous reports (as listed in the references of this document), should be referred to.
- 1.4 GMEU conducted wintering bird surveys between November 2024 and March 2025 on 13 sites, comprising two or three visits per site. The list of sites are detailed below and the locations are shown in Figure 1.
  - Site 1: South Carnforth
  - Site 2: Crag Bank, Carnforth
  - Site 3: Over Kellet
  - Site 4: Bolton Le Sands
  - Site 5: Slyne
  - Site 6: Torrisholme
  - Site 7: Middleton
  - Site 8: Overton
  - Site 9: Aldcliffe
  - Site 10: Land West of Ashton Road
  - Site 11: South Lancaster
  - Site 12: Land East of Ashton Road
  - Site 13: Caton



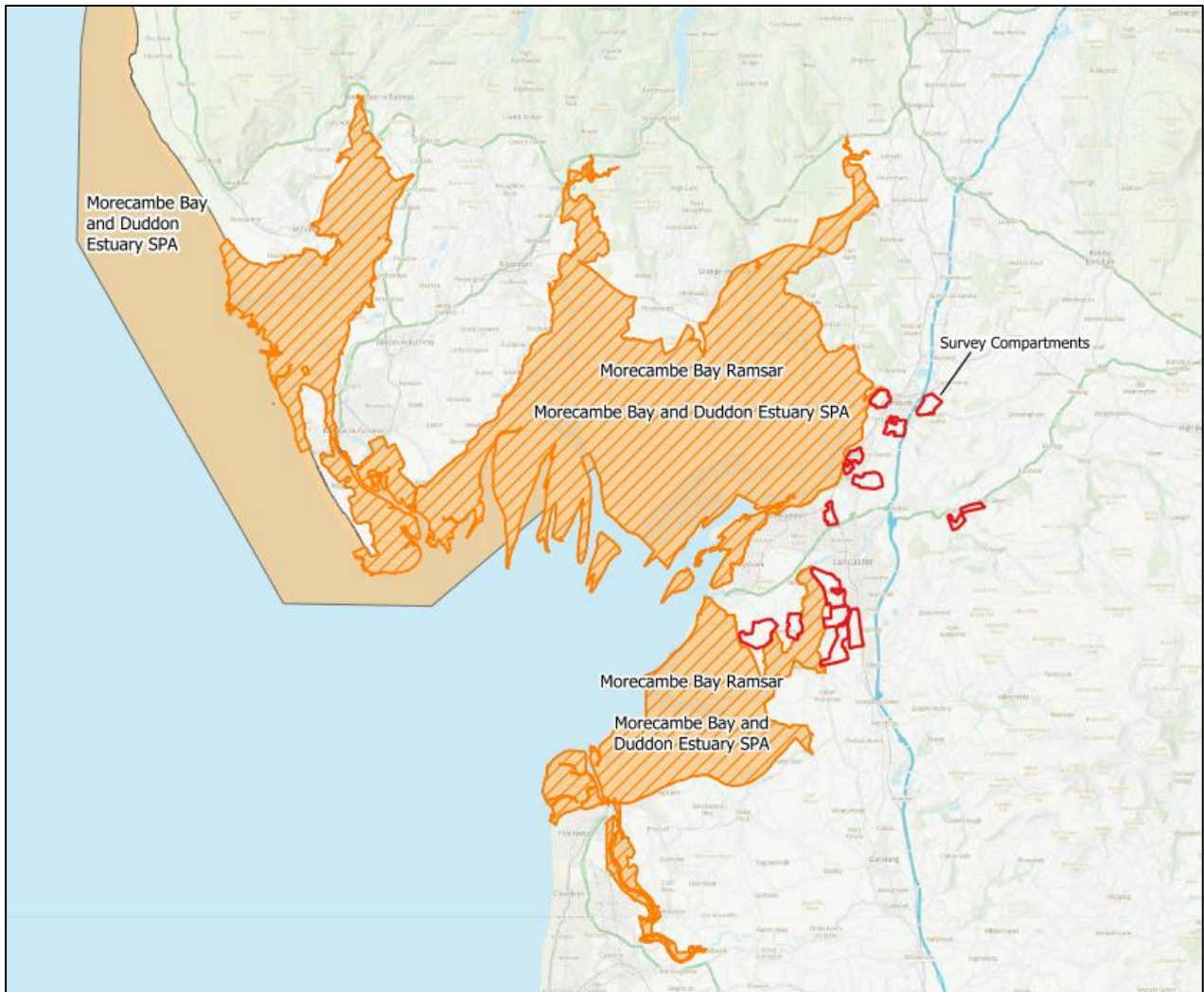
**Figure 1 – Locations of each surveyed site**

1.5 The surveys aimed to:

- Record birds using the site during the survey period, and particularly those bird species which are qualifying species for nearby designated sites, most notably the Morecambe Bay and Duddon Estuary Special Protection Area (SPA) and the Morecambe Bay Ramsar.
- Record dominant habitats and current land-use on the sites.
- Record any public use of the sites during the survey periods.
- Assess the potential of areas to act as ‘functionally linked’ to nationally designated sites. Functionally linked land’ (FLL) is a term often used to describe areas of land or sea occurring outside of designated sites which is considered to be critical to, or necessary for, the ecological or behavioural functions in a relevant season of a qualifying feature for which a Special Areas of Conservation (SAC)/ Special Protection Area (SPA)/ Ramsar site has been designated. These habitats are frequently used by mobile species (particularly birds) and are key to the survival of these species.

## 2 DESIGNATED SITES

2.1 Figure 2 below shows the surveyed sites in relation to Morecambe Bay and Duddon Estuary SPA and Morecambe Bay Ramsar.



**Figure 2 – Location of surveyed sites/compartments (in green) in relation to targeted European Protected Sites**

### **Morecambe Bay and Duddon Estuary SPA – Site Description and Qualifying Features**

- 2.2 The Morecambe Bay and Duddon Estuary SPA is situated along the coast of northern Lancashire and southern Cumbria and includes the second largest embayment in Britain, after the Wash in Norfolk. The protected area represents the largest continuous area of intertidal mudflats and sandflats in the UK.
- 2.3 The site includes several major estuaries where the river Wyre, Lune, Kent, Leven and Duddon enter the Irish Sea. The boundary of the SPA is formed by the amalgamation of two existing SPAs (Morecambe Bay SPA and Duddon Estuary SPA), and the addition of a marine foraging area for terns. The protected site comprises areas for breeding seabirds, foraging breeding seabirds, non-breeding seabirds and waterbirds utilising a range of habitats. The original features of the two SPAs are retained, with the addition of newly qualifying species. There are currently 27 features

including two assemblages; in the breeding season the area regularly supports nearly 62,000 individual sea birds and in the winter it regularly supports over 210,000 individual waterfowl.

2.4 Natural England lists the conservation objectives for Morecambe Bay SPA as follows: to maintain, in favourable condition, the habitats for the populations of Annex 1 species of European importance, with particular reference to:

- Bar-tailed godwit (*Limosa lapponica*), Non-breeding
- Black-tailed godwit (*Limosa limosa islandica*), Non-breeding
- Common tern (*Sterna hirundo*), Breeding
- Curlew (*Numenius arquata*), Non-breeding
- Dunlin (*Calidris alpina alpina*), Non-breeding
- Golden plover (*Pluvialis apricaria*), Non-breeding
- Grey plover (*Pluvialis squatarola*), Non-breeding
- Herring gull (*Larus argentatus*), Breeding
- Knot (*Calidris canutus*), Non-breeding
- Lesser black-backed gull (*Larus fuscus*), Breeding
- Lesser black-backed gull (*Larus fuscus*), Non-breeding
- Little egret (*Egretta garzetta*), Non-breeding
- Little tern (*Sternula albifrons*), Breeding
- Mediterranean gull (*Ichthyaetus melanocephalus*), Non-breeding
- Oystercatcher (*Haematopus ostralegus*), Non-breeding
- Pink-footed goose (*Anser brachyrhynchus*), Non-breeding
- Pintail (*Anas acuta*), Non-breeding
- Redshank (*Tringa totanus*), Non-breeding
- Ringed plover (*Charadrius hiaticula*), Non-breeding
- Ruff (*Calidris pugnax*), Non-breeding
- Sanderling (*Calidris alba*), Non-breeding
- Sandwich tern (*Thalasseus sandvicensis*), Breeding
- Seabird assemblage, Breeding
- Shelduck (*Tadorna tadorna*), Non-breeding
- Turnstone (*Arenaria interpres*), Non-breeding
- Waterbird assemblage, Non-breeding
- Whooper swan (*Cygnus cygnus*), Non-breeding

2.5 The full citation for Morecambe Bay and Duddon Estuary SPA, can be found here:

<https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9020326.pdf>.

2.6 Species of bird that are “ecologically dependent on wetlands” (as per the Ramsar convention, 1994, article 1.2), including all waterfowl, seabirds and waders were recorded during the surveys. Species considered to be of importance or are qualifying species have been mapped; however, some are discussed only and can be found in the full data tables located in Appendix A (separate document).

### **Morecambe Bay Ramsar - Site Description and Qualifying Features**

2.7 Morecambe Bay lies between the coasts of South Cumbria and Lancashire, and represents the largest continuous intertidal area in Britain. Morecambe Bay comprises the estuaries of five rivers and the accretion of mudflats behind Walney Island. The area is of intertidal mud and sandflats, with associated saltmarshes, shingle beaches and other coastal habitats. It is a component in the chain of west coast estuaries of outstanding importance for passage and overwintering waterfowl (supporting the third-largest number of wintering waterfowl in Britain), and breeding waterfowl,

gulls and terns.

2.8 The qualifying species for Morecambe Bay Ramsar are listed below:

- Assemblage of seabirds, gulls and terns - Breeding
- Bar-tailed godwit (*Limosa lapponica*) - Wintering
- Curlew (*Numenius arquata*) - Wintering
- Dunlin (*Calidris alpina*) - Wintering
- Grey plover (*Pluvialis squatarola*) - Wintering
- Knot (*Calidris canutus*) - Wintering
- Oystercatcher (*Haematopus ostralegus*) - Wintering
- Pink-footed goose (*Anser brachyrhynchus*) - Passage
- Pintail (*Anas acuta*) - Wintering
- Redshank (*Tringa tetanus*) - Wintering
- Ringed plover (*Charadrius hiaticula*) - Passage
- Shelduck (*Tadorna tadorna*) - Wintering
- Turnstone (*Arenaria interpres*) - Breeding
- Waterbird assemblage - Wintering

2.9 Other species listed within the citation of Morecambe Bay Ramsar (but not listed on the qualifying features), with peak counts in Spring/Autumn include:

- Eurasian wigeon (*Anas penelope*)
- Northern lapwing (*Vanellus vanellus*)

2.10 The full citation for Morecambe Bay Ramsar can be found here:

<https://jncc.gov.uk/jncc-assets/RIS/UK11045.pdf>.

### 3 METHODS

- 3.1 Field surveys were led by Stephen Atkins, an experienced ornithologist who is the Assistant County Bird Recorder for Greater Manchester and has undertaken bird surveys in Lancashire over a period of twenty years. Other surveyors and assistants included Principal Ecologist Derek Richardson, Ecologists Sam Bolton, Stuart Fraser and Melissa Sullivan, Assistant Ecologist Ciara Bass and ornithologist Chris Marston.
- 3.2 The survey methodology employed was the same as the surveys conducted in 2017-2018 and 2020-2021 with a walkover of each site and point counts conducted from vantage points giving the best views over the surrounding landscape. The routes taken around the sites were along public rights of way and minor roads, consequently some areas were not surveyed. Each survey visit was of five to six hours duration and the survey schedule is shown in Table 1. The surveys covered the mid-winter period when most species will be settled on their wintering grounds and the start of return migration when birds will be staging in Lancashire prior to returning to their breeding grounds primarily in Iceland and Scandinavia.
- 3.3 A minimum of two survey visits were undertaken at each site. Where GMEU have undertaken previous wintering bird surveys, or the initial assessments (desk based and the initial site visit) suggested there was a low probability of sites being FLL, then two surveys were undertaken (Sites 6, 9, 10, 11, 12 and 13). For sites where GMEU have not had previous involvement in wintering bird surveys or where initial survey work suggests that they are more likely to be FLL, three survey visits were carried out (Sites 1, 2, 3, 4, 5, 7 and 8).
- 3.4 Nocturnal surveys were undertaken on sites where the site has been identified as having high potential to support wintering birds during daytime surveys. Nocturnal survey effort included three sites (Slyne, Middleton and Overton) and were undertaken by at least two ecologists for safety reasons.
- 3.5 For each site, an assessment was also undertaken to determine broad land-use and habitat types present, which was taken into consideration when assessing the importance of each site for qualifying bird species. The results of the habitat/land-use assessment are detailed in the results section for each site, and field notes and vantage point photos for each site have been issued separately via SharePoint.

**Table 1 – Survey Schedule and Personnel**

Site Number	Site Name	Surveyor Personnel	Survey Dates
1	South Carnforth	Stephen Atkins	03/12/2024
			05/02/2025
2	Crag Bank, Carnforth	Stuart Fraser	15/12/2024
			05/02/2025
			24/03/2025
3	Over Kellet	Stephen Atkins	27/12/2024
			24/03/2025
4	Bolton Le Sands	Stephen Atkins	16/12/2024
			27/02/2025
5	Slyne	Stephen Atkins and Melissa Sullivan	10/12/2024
			29/01/2025*

Site Number	Site Name	Surveyor Personnel	Survey Dates
			13/03/2025
6	Torrisholme	Sam Bolton and Melissa Sullivan	28/11/2024 27/02/2025
7	Middleton	Stephen Atkins and Stuart Fraser	26/11/2024 10/02/2025* 17/03/2025
8	Overton	Stephen Atkins and Ciara Bass	18/11/2024 28/01/2025* 04/03/2025
9	Aldcliffe	Christopher Marston	19/12/2024 28/02/2025 10/03/2025
10	Land West of Ashton Road	Christopher Marston	07/12/2024 22/02/2025
11	South Lancaster	Christopher Marston	08/12/2024 21/02/2025
12	Land to east of Ashton Road	Derek Richardson and Melissa Sullivan	02/11/2024 13/02/2025
13	Caton	Stephen Atkins	13/11/2024 06/03/2025

\* Denotes dusk/evening surveys

3.6 Following the field surveys, a desk-based assessment to review the survey results was undertaken to identify the likelihood for each of the sites (or compartments within the site) to be 'Functionally Linked Land' to Morecambe Bay Ramsar and Morecambe Bay and Duddon Estuary SPA. The basis of the assessment loosely followed the Site Scoring System applied to the previous wintering bird surveys that GMEU have undertaken across the Lancaster district (GMEU, 2018). However, given the survey effort did not follow the full methodology for assessing FLL a more flexible approach to the criteria was applied, with the criteria shown within Appendix B. The scoring categories are shown below:

- 1 = Very Low Potential
- 2 = Low Potential
- 3 = Medium Potential
- 4 = High Potential
- 5 = Very High Potential

3.7 The scores assigned to each site (or compartment within each site) was based on professional judgement (based on a significant combined years of experience) and observations such as habitats present, abundance and diversity of species linked to the SPA/Ramsar recorded and proximity to the European designated sites. Further rationale for the selections is provided in the results section for each site.

3.8 Given the mobile nature of species and the survey methodology that has been used, the mapping of the potential for a site to be FLL has not been mapped with a defined edge, to reflect these are indicative areas based on the current data, rather than exact boundaries.

3.9 Some areas are captured in the mapping that are not considered likely to be FLL including

hardstanding, small hamlets, farms and sewage treatment works. Such habitats are not considered to be FLL.

### **Limitations and Assumptions**

- 3.10 No Biological Records Search and assessment was included in scope of this work. GMEU understands that this has been included in the scope of another study looking at the wider land use of the area. Where GMEU has existing knowledge of relevant records we have referred to them in the results section.
- 3.11 Access for the surveys was limited to existing Public Rights of Way (PRoWs) and roads or tracks either on or nearby to the site and therefore some areas of some of the sites could not be fully accessed or viewed during the surveys. The areas not accessed or viewed during the surveys are shown in the paper field maps in Appendix C (submitted separately to this document). This is not considered to be a significant limitation as most sites had relatively good coverage, however there is potential that some birds may have been missed as a result of this.
- 3.12 For the nocturnal surveys, infrared cameras were used for Slyne and Overton, however when dark, the range on the cameras was relatively limited and therefore some birds may have been missed. A thermal imaging camera was subsequently used at Middleton which gave a much better range.
- 3.13 Given the nature of the surveys, there is potential that birds or flocks of birds moved around a site when the surveys were being conducted and therefore could potentially be double counted. Surveyors noted down whether they observed flocks of birds moving around the site and this has been detailed in the results.
- 3.14 Birds flying high above the sites and going over the sites only were not deemed to be 'using the site' at the time of the surveys. These were recorded but have been discussed in the results only and not mapped.

## 4 RESULTS

The results of the surveys are detailed below, per site which includes a site and habitat description, field survey results (with accompanying map per survey which shows target species only), plus an assessment of Functionally Linked Land (FLL), with an associated map. Scientific names have not been included within the results, however they are listed within Appendix A.

### 4.1 Site 1 – South Carnforth

#### Site and Habitat Description

Five fields in the north of the site contained maize stubble, divided by low hawthorn hedges with some gappy. A treeline of mature hawthorns and occasional willow is present in one field and a semi-improved marshy field is adjacent.

Elsewhere within the site boundary, most of the fields comprise improved grassland most of which were grazed by sheep with heifers present in one field. A rough unmade track runs north-south across the site with a connected track running east to Back Lane. The hedgerow adjacent to the track comprises hawthorn, elder and sycamore.

In the centre of the site, at the intersection of the tracks, a treeline consists of mature beech and sycamore with blackthorn scrub. The disused Lundsfield quarry contains hawthorn, elder and bramble scrub. The track running north from Thwaite House Farm is bordered by a hedgerow composed of elder, hawthorn and hazel.

On the western boundary, to the south of the canal, a fast-flowing stream runs downhill, crossing Mount Pleasant Lane (unmade track) at one point. The stream issue is in a field on the northeast side of Thwaite House Farm. Mature ash and sycamore border the lane.

Photographs of Site 1 are provided below to give an overview of the types of habitats present.



#### Field Survey Results

There was limited wintering bird interest during both surveys at Site 1. Various gull species were recorded during both surveys including Herring Gull, Lesser Black-backed Gull, Common Gull and Black-headed Gull, mostly observed in fields across the site in numbers varying from one or two, up to groups of 30 (as shown in the maps below). The gulls were mostly observed foraging in the fields with some flying into the site during the surveys.

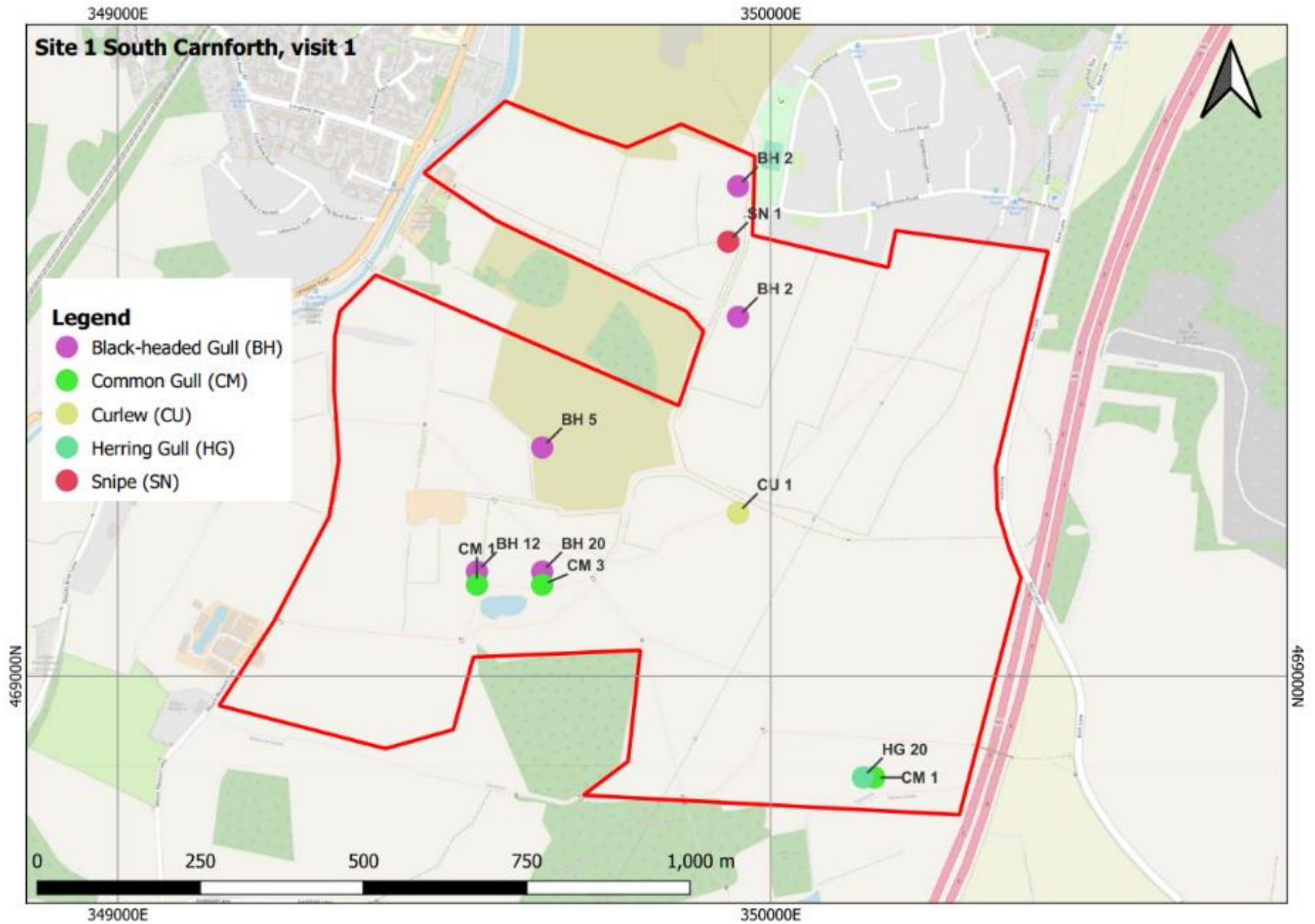
One Curlew was heard calling towards the centre of the site during the first site visit. Although not a target species, one Snipe flew up from a marshy area towards the northern extent of the site. No target species were observed flying over the site during the surveys.

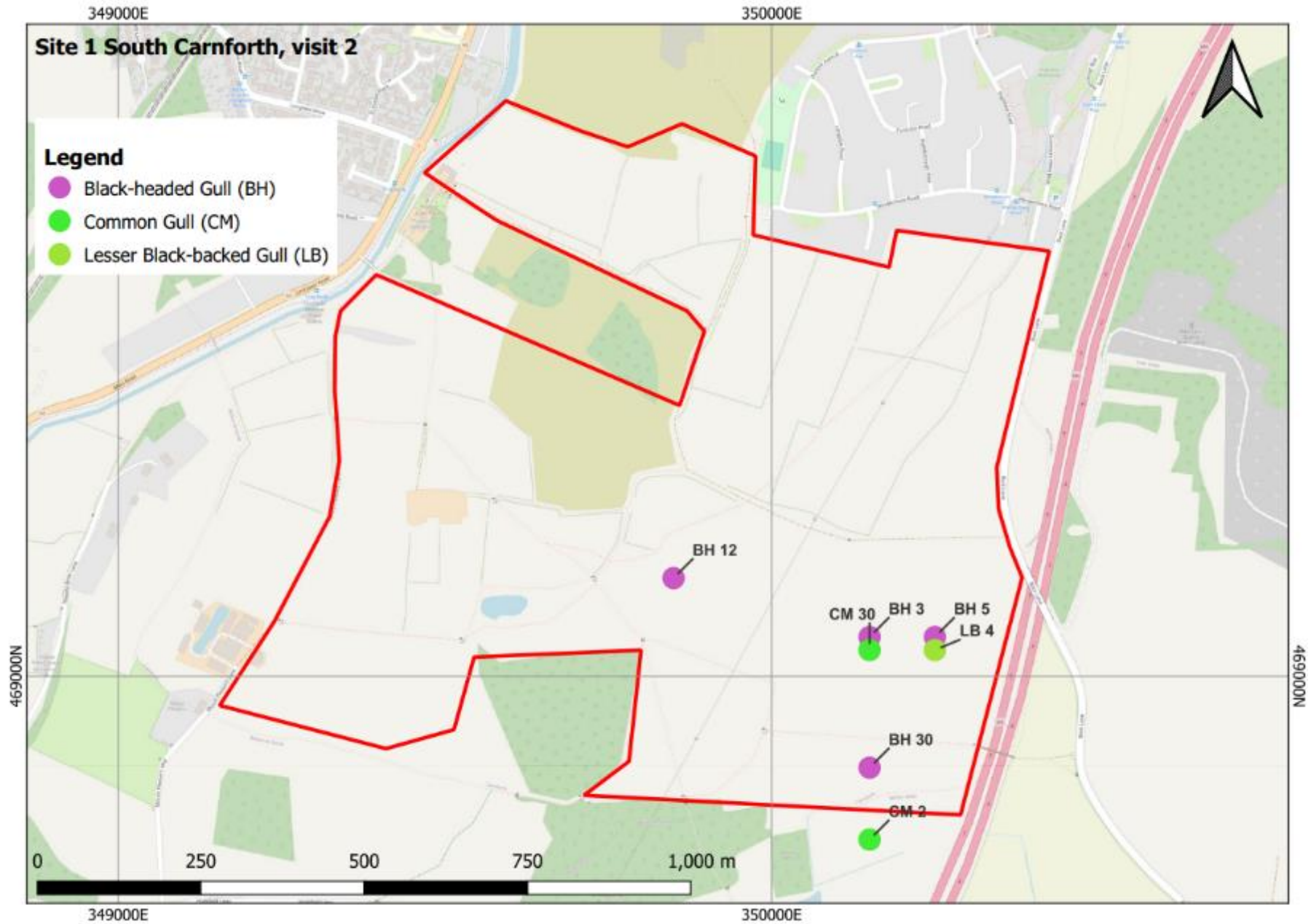
Other priority species (S41 NERC Act) present in small numbers were four House Sparrow (including a singing male), three Reed Bunting, three Song Thrush (including singing male), 220 Starlings (with some foraging in fields) and one Skylark (flying overhead only, towards north). Other notable red listed species (Birds of Conservation Concern, Eaton et al, 2015) recorded include two Lesser Redpoll (flying over site only) and two Mistle Thrush (one foraging in field).

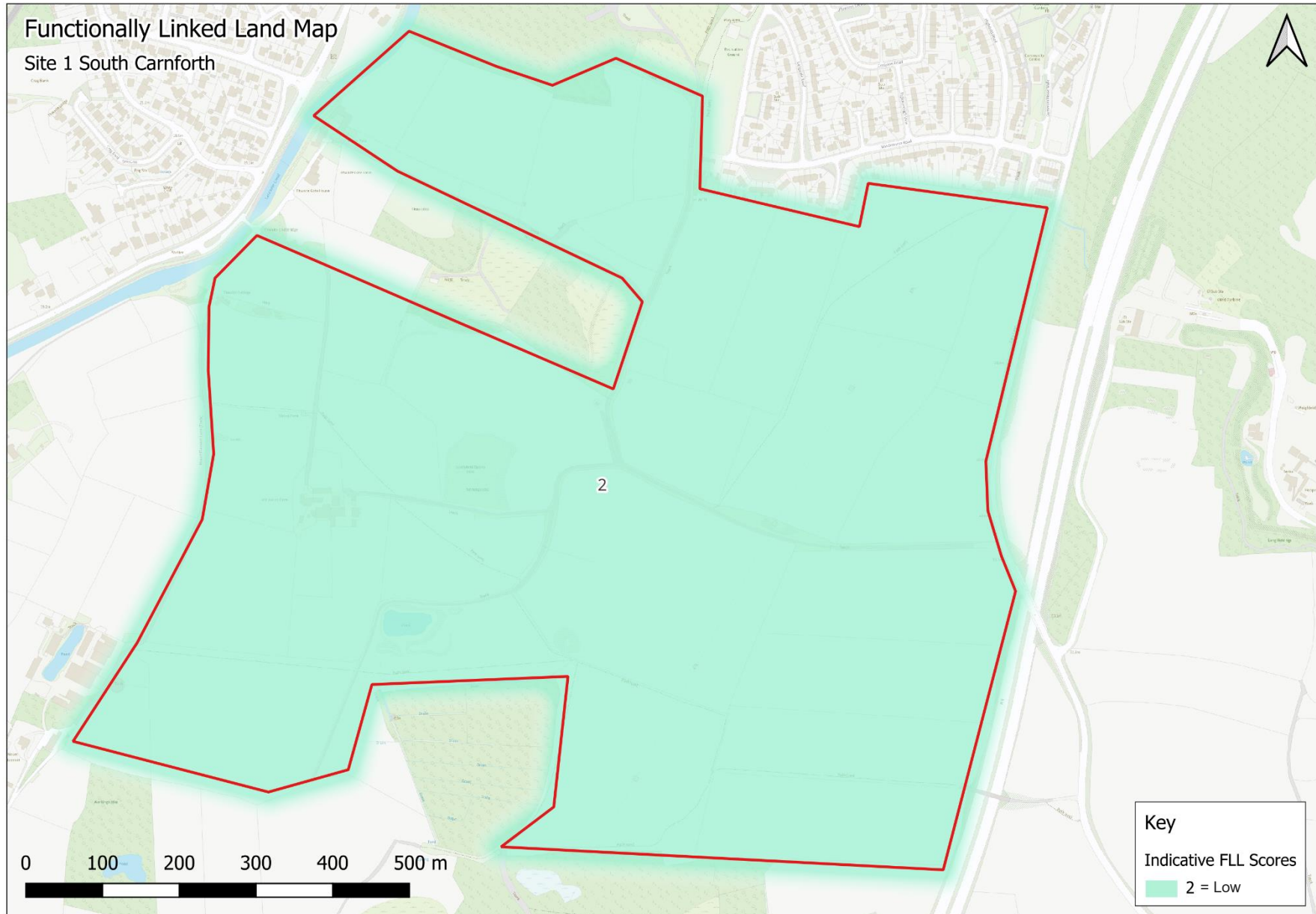
Maps showing the results of the surveys are shown on the following pages.

*Functionally Linked Land Assessment*

Site 1 (whole site) has been assessed as score 2 which is low potential to support wintering birds associated with Morecambe Bay Ramsar and Morecambe Bay & Duddon Estuary SPA and to act as functionally linked land. See FLL Map for Site 1 below.







## 4.2 Site 2 - Crag Bank Carnforth

### Site and Habitat Description

The site is situated to northwest of Carnforth, based around Hunting Hill and bordered by the town, Shore Road to the north and Keer Estuary, part of the Morecambe Bay Ramsar and SPA is within the boundary at the west of the site.

The southwest third of the site is very wet grassland; a combination of pasture, juncus marsh and flood meadow adjacent to the estuary, including a small recently created wetland. The fields on the hill, and to its north and east, are mostly sheep-grazed pasture, though one field has a mix of rough grassland, scrub, reedbed, pond and brook. There is also a semi-permanent tarn on the lower east-facing slope of the hill.

Public footpaths allow good access to most of the site, starting and finishing near the railway line on Shore Road and making a rough circle around the base of the hill. To the northeast, this follows a mature hedge with quality ground flora and diverse farmland birds. The site hedgerows are otherwise well-established but regularly cut back. Carnforth sewage treatment works is located on the western slope of the hill.

Photographs of Site 2 are provided below to give an overview of the types of habitats present.



### Field Survey Results

Various target/SPA qualifying species were identified during all three surveys at Site 2, with a smaller number found in the third survey towards the end of March at low tide, as shown on the maps below.

During the first survey, good numbers of Oystercatcher were recorded at various locations across the site with a peak count of 45 observed to the west of Carnforth sewage works and another 20 and 32 recorded on the marshy grassland towards the south of the site. A peak count of 8 Curlew were observed, with Curlew mostly noted on the fields bordering the estuary and the marshy grassland at the south. Redshank were observed onsite, some foraging in the wetter areas and recorded offsite within the estuary (peak count of 42). Snipe were recorded flying up from the ground (flushed by surveyor) and a flock of 25 Lapwing were recorded towards the southwest corner of the site. Wigeon were recorded both onsite and in higher numbers just offsite within the estuary.

During the second survey, good numbers of target/ SPA qualifying species were recorded again, mostly restricted to the western fields bordering the estuary and the marshy areas to the south. Good numbers of Oystercatcher were again recorded (peak count of 35). There were various gull species recorded, with 80 Black-headed Gulls in flight but low over the site. Wigeon and teal were recorded in relatively small numbers. One Snipe was recorded towards the southwest corner of the site and six Curlews were observed (two in the field adjacent to the estuary on the west and four in the marshy grassland). Six Black-tailed Godwits were recorded towards the western boundary of the site, adjacent to the estuary. A flock of 400 Pink-footed Geese and 80 Oystercatchers were recorded feeding on fields the other side of the River Keer.

During the third survey in March, lower numbers of birds were recorded which included Teal, Gadwall, Greylag Goose, Black-headed Gull, Oystercatcher and Snipe. Four Oystercatcher and two Snipe were recorded towards the southern boundary of the site. Additionally, an individual Cetti's Warbler was recorded (singing male) within the reedbed located towards the northwest of the site (approximate grid reference: SD48887100), just north of the Carnforth sewage works. Cetti's Warbler is listed as a Schedule 1 species under the Wildlife and Countryside Act, 1981 (as amended).

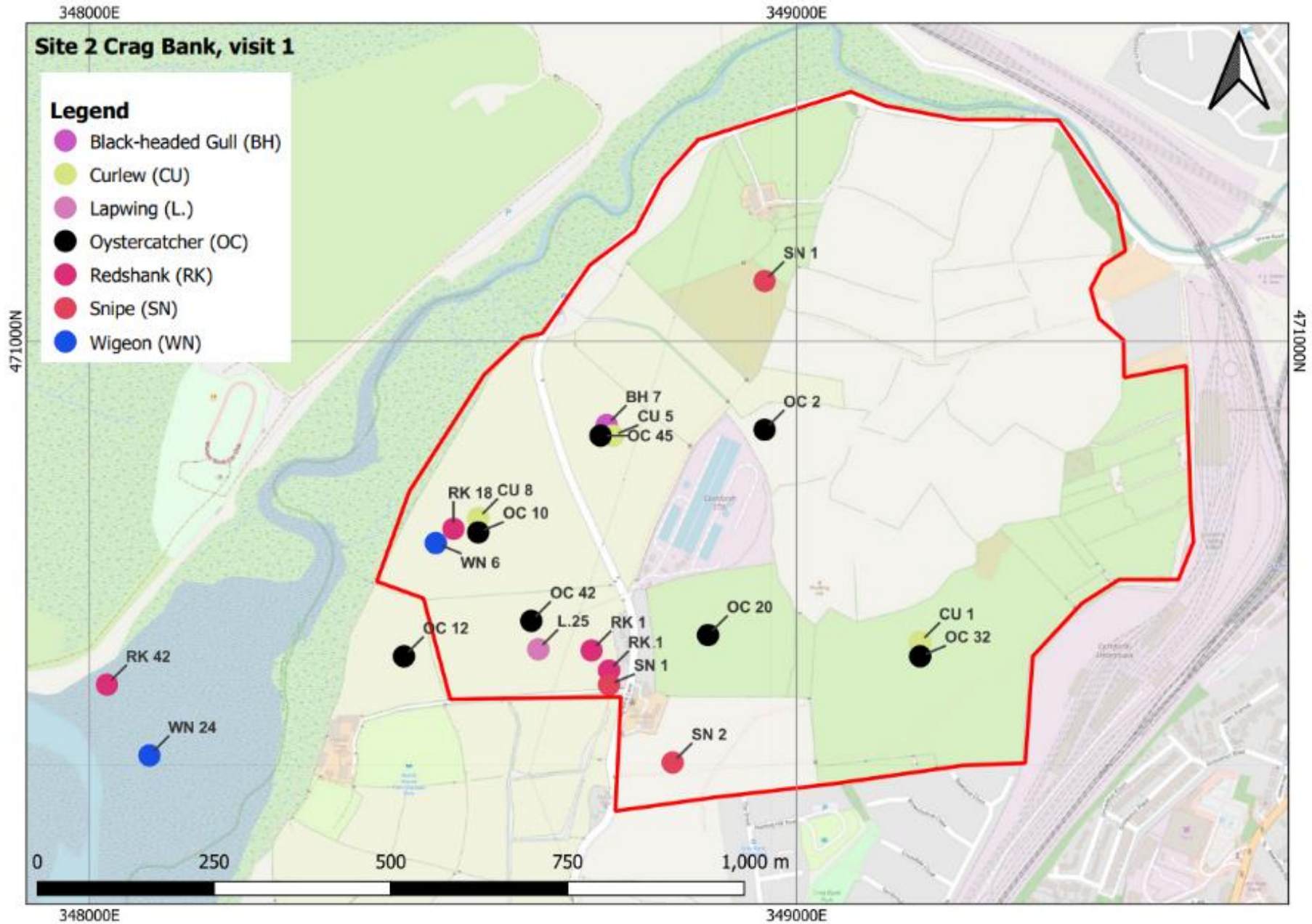
During all of the surveys at Site 2, other priority species (S41 NERC Act) were present in small numbers which included two Linnet, two Marsh Tit, seven Reed Bunting (including two pairs in suitable nesting habitat and two singing males), 11 Skylark (including singing males, and courtship/displaying behaviour), one Song Thrush (singing male), 152 Starling and four Tree Sparrow.

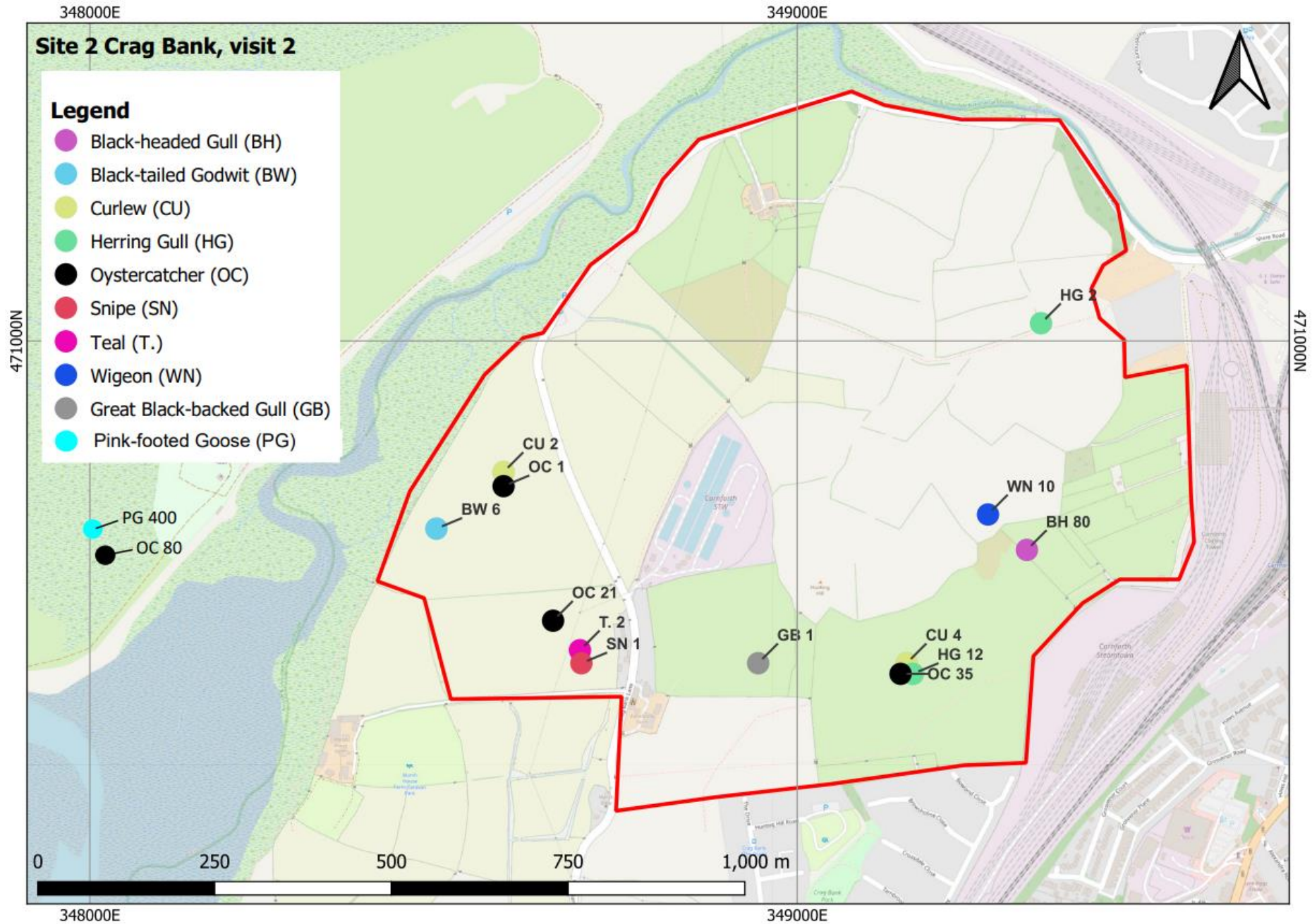
Additionally, 74 Oystercatchers were recorded onsite on 1<sup>st</sup> February 2025 within one of the horse grazing fields towards the south of the site next to the existing residential housing and the railway. Most of the birds stayed on the ground, but a group of 20+ flew and settled in the juncus field to the west. The rest flew up a few minutes later, as the observer was leaving the field. This was an ad-hoc/incidental record from Dr Stephanie Peay (Lancaster City Councils Biodiversity Officer).

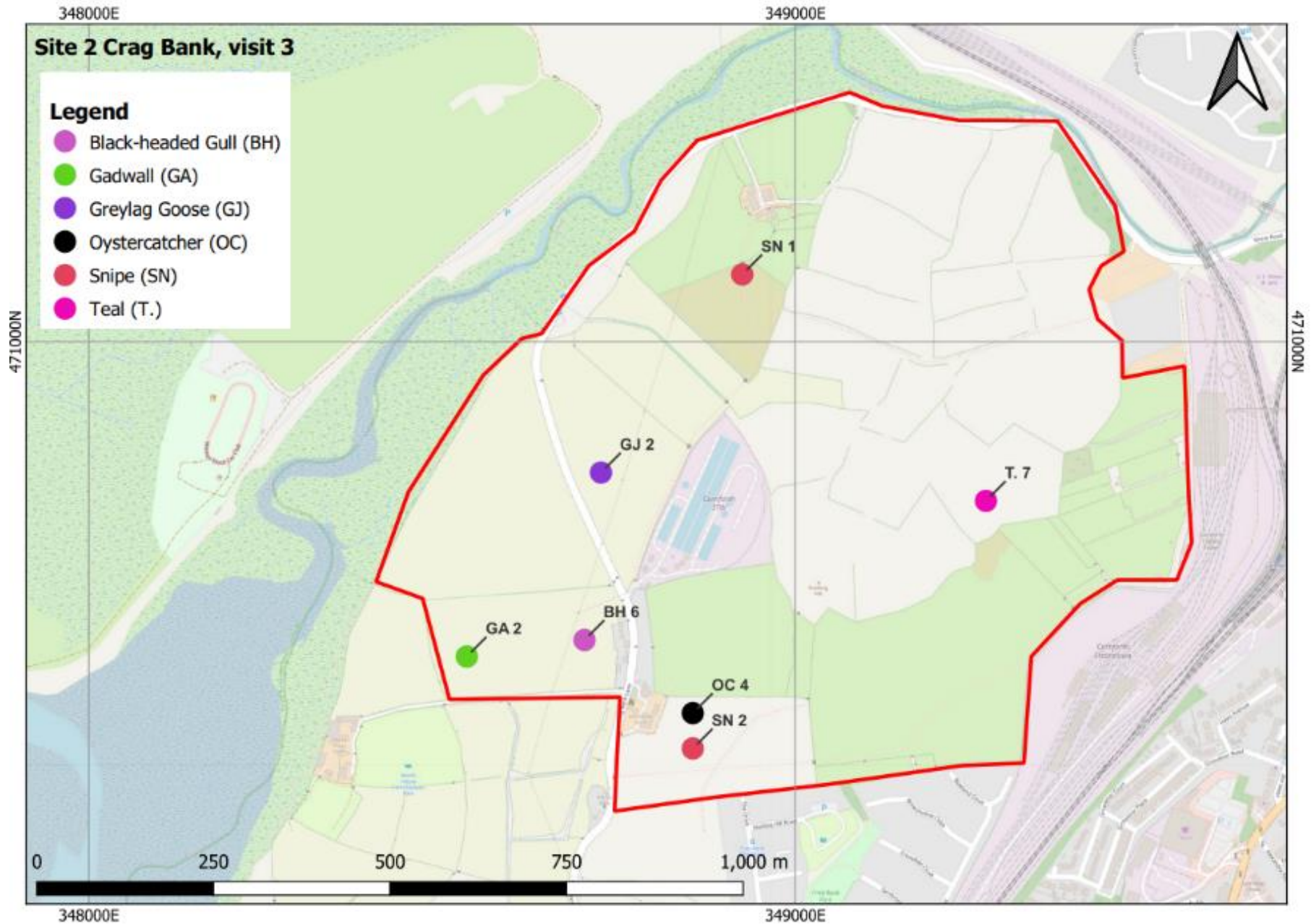
Maps showing the results of the surveys are shown on the following pages.

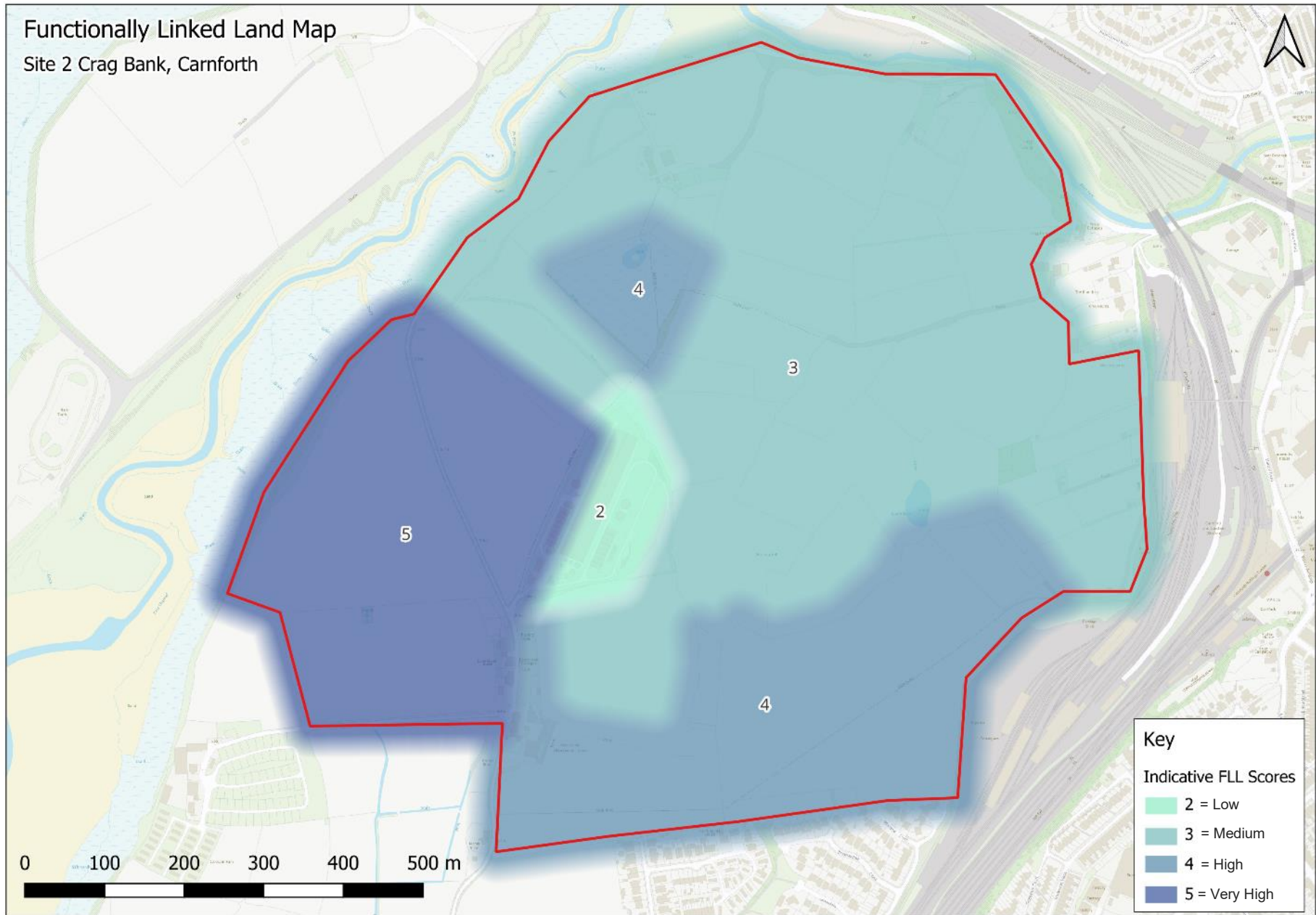
#### Functionally Linked Land Assessment

Site 2 has been split into various compartments for the FLL assessment, ranging from 2 (low potential) to 5 (very high potential) to support wintering birds associated with Morecambe Bay Ramsar and Morecambe Bay & Duddon Estuary SPA and to act as functionally linked land. See FLL Map for Site 2 below.









### 4.3 Site 3 – Over Kellet

#### Site and Habitat Description

There are no PROWs across the site, all habitat and bird recording were undertaken from vantage points along Capernwray Road, Kellet Lane, Kellet Road and the towing path on the north side of the Lancaster Canal between Kellet Lane and the M6.

Nearly all the fields are improved grassland, with sheep grazing in many of them during the surveys. An L-shaped field which runs along the northeast edge of the site boundary and then southwest towards Meadowside contained maize stubble. It extends beyond the site boundary and is bordered by a low hawthorn, elder and sycamore hedge. In the northwest of the site, one field of bare soil, appeared tilled but was viewed at a distance from a vantage point on Kellet Road (B6254).

At the southern end of Kellet Lane, fields to the west contain a stand of mature sycamores, which from aerial photography surround a pond, and a stand of mature beech in the field to the north. Mature sycamores are present along the lane with low sycamore, elder and hawthorn hedgerows forming the field boundaries.

The field to the east of Kellet Lane at its junction with Capernwray Road has a treeline of mature hawthorns and sycamores on its eastern boundary and contains a limestone outcrop on the slope. The adjacent field to the north of Capernwray Road is bordered by a low hedgerow of hawthorn, sycamore and ash which contains a few mature trees, oak, ash and sycamore.

A treeline of mature hawthorns and elders runs along the south and west boundary of the field to the south of Kellet Bridge Farm, west of the lane. The Lancaster Canal forms the northern boundary of the site and contains stands of phragmites with two mature ash trees on the south bank of the canal.

The field boundary along the north side of Kellet Road (B6254) is a low hawthorn hedge. One field has a line of mature ash along its north boundary and another in the SW corner of the site has a hawthorn treeline on its east and west boundaries with a single mature oak and sycamore.

Photographs of Site 3 are provided below to give an overview of the types of habitats present.



#### Field Survey Results

Relatively low numbers of target species were identified during both surveys at Site 3, mainly restricted to gull species, with small numbers of Oystercatcher and Lapwing (nesting). However, during the first survey, a peak count of around 80 Common Gull were observed foraging in one of the grazing pastures towards the southeast of the site. Small numbers of Black-headed Gull and Herring Gull were observed on both surveys and three Lesser Black-backed Gull were observed during the second survey. Three Oystercatcher were

observed during the first survey towards the southeast of the site and two were observed towards the centre of the site during the second survey (a pair in suitable nesting habitat). Six Lapwing were observed on the northeast boundary of the site, which includes one occupied nest with an adult observed sitting on a nest on a scrape within the maize stubble and a pair in suitable nesting habitat (in maize stubble field). Although outside of the scope of the wintering bird surveys, it is recommended that breeding bird surveys are undertaken in this area within the optimal breeding bird survey season (with April and May being the optimum months). Lapwing breeding success on arable land is dependent on the timing of agricultural operations, the birds will often lose first clutches to ploughing/tilling and sowing but then lay second clutches which can hatch successfully, if there is sufficient time between farming operations and the chicks move into cover in adjacent fields.

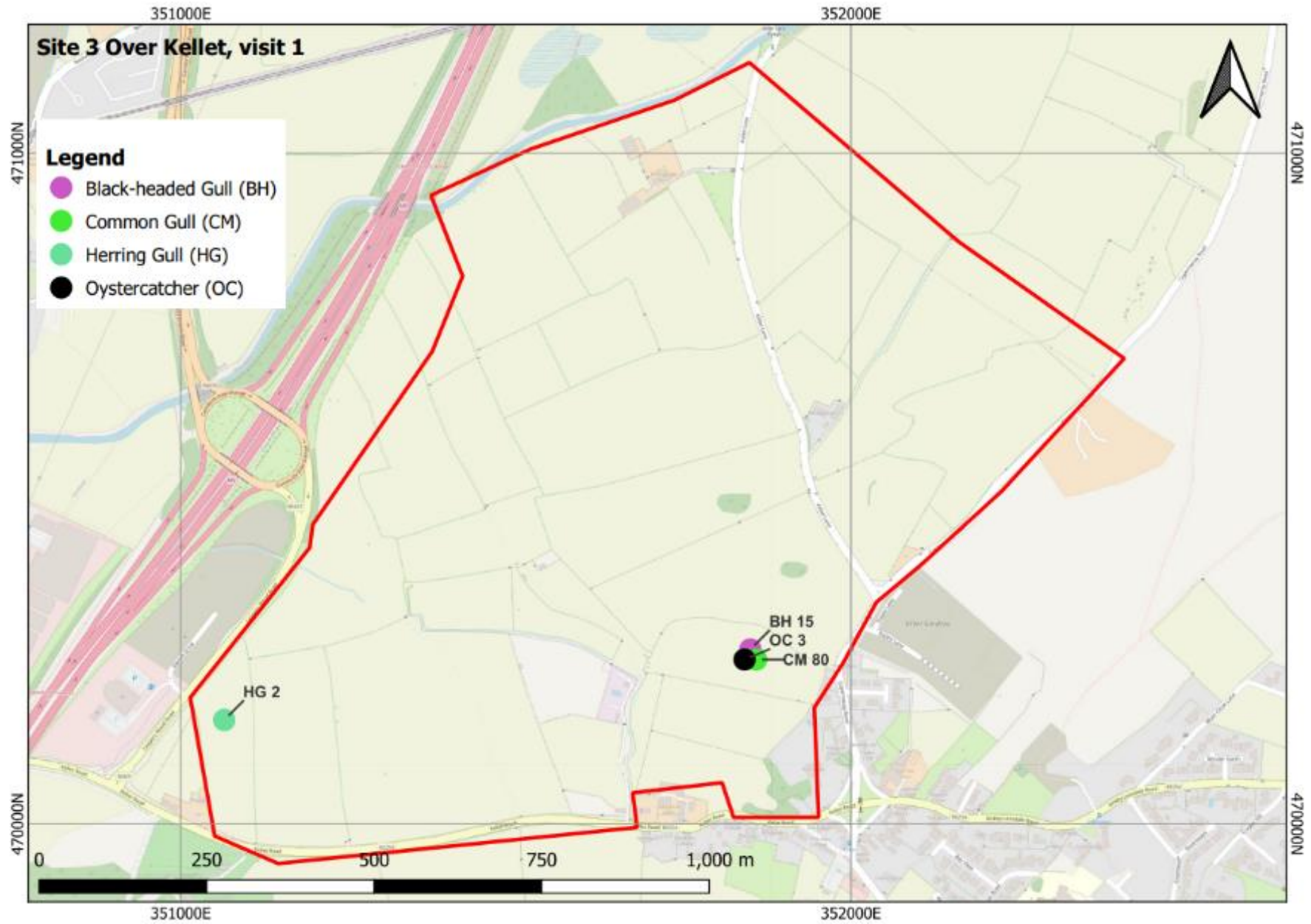
During the first survey, one Greylag Goose was observed calling overhead (not using the site) and flew towards the west. Similarly, during the second survey, two Curlew were recorded flying high overhead (not using the site), heading towards the west.

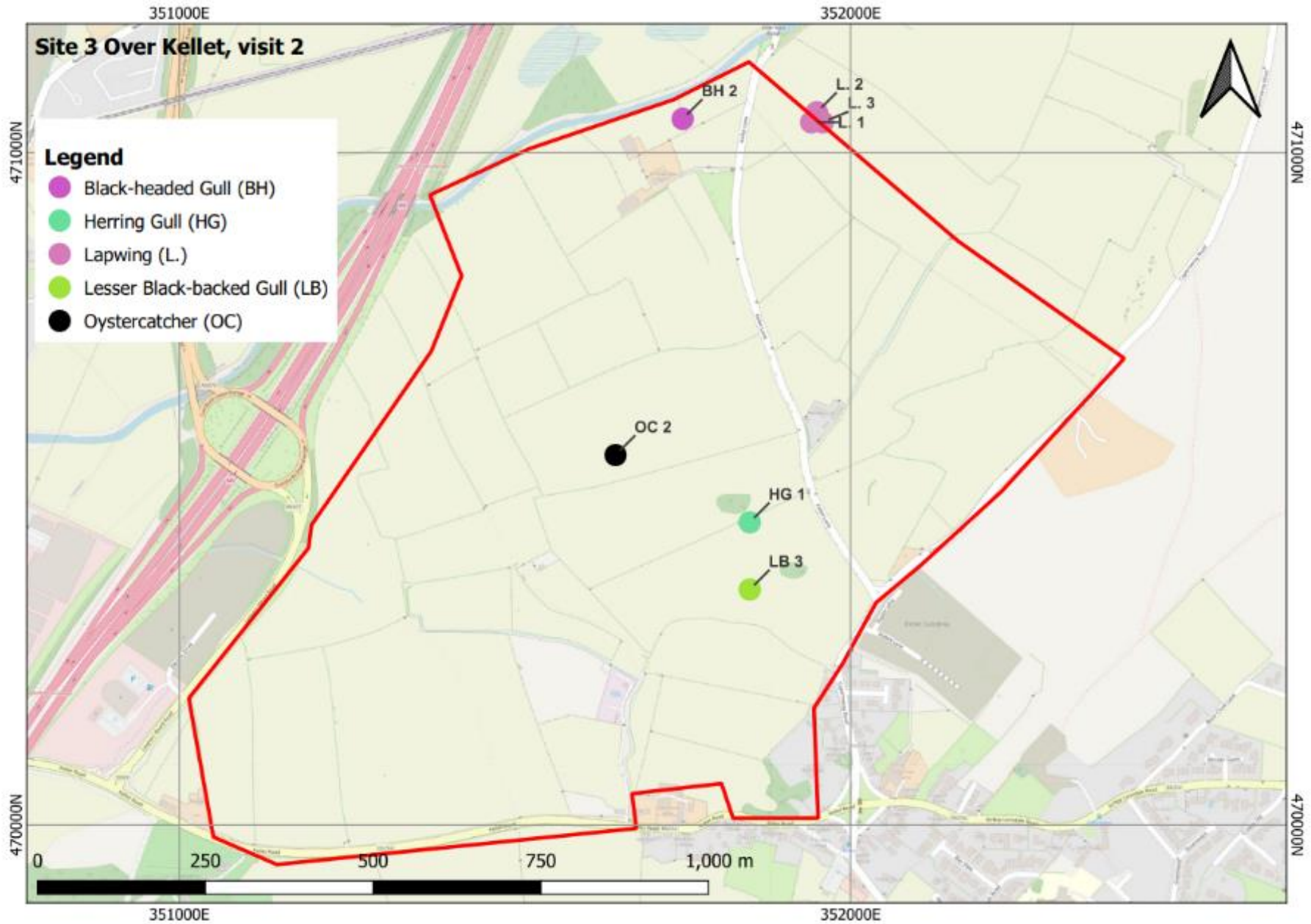
Other priority species (S41 NERC Act) present in small numbers were six House Sparrow, one Song Thrush, over 450 Starlings (with large numbers such as +180 and +130 foraging in some of the fields) and one Tree Sparrow (male singing) towards the eastern boundary of the site, just north of the village of Over Kellet. Other notable red listed species recorded include two Mistle Thrush (one foraging in field).

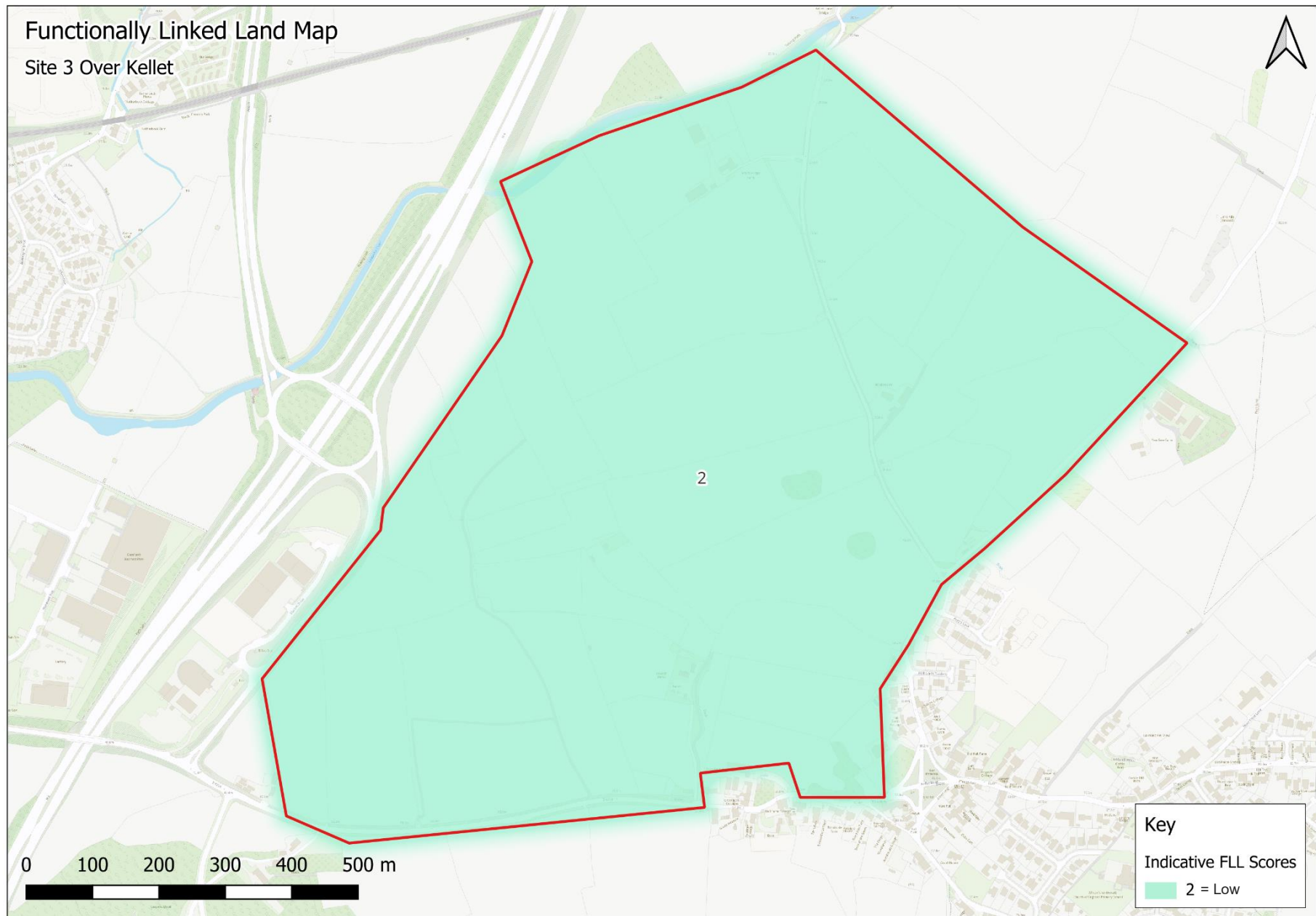
Maps showing the results of the surveys are shown on the following pages.

#### Functionally Linked Land Assessment

Site 3 (whole site) has been assessed as score 2 which is low potential to support wintering birds associated with Morecambe Bay Ramsar and Morecambe Bay & Duddon Estuary SPA and to act as functionally linked land. See FLL Map for Site 3 below.







#### 4.4 Site 4 – Bolton Le Sands

##### Site and Habitat Description

The fields to the north of Shore Lane and west of Pasture Lane are improved, with three fields grazed by sheep and the field on the east side of Red Bank House contained horses. Low, gappy hawthorn hedgerows running alongside drains supporting stands of phragmites form the boundaries of these fields. To the east of Pasture Lane, west of the railway line, most of the fields are semi-improved and contain abundant *Juncus* with drains containing phragmites. A line of mature hawthorns forms the northern site boundary to the east of Pasture Lane and further south on the west side of the lane more mature hawthorns form the field boundary next to a drain. A low hawthorn hedge runs next to the lane with a line of mature hawthorns where it meets the railway line. Phragmites is growing next to the railway line on the west side.

To the east of the railway line across to the site boundary, adjacent to Coastal Road (A5105), the fields are improved with most grazed by sheep. South of Shore Lane, east of the railway line, drains containing phragmites form the boundaries between the fields.

Just outside the site boundary, between the railway line and Coastal Road lies a reed bed (phragmites) containing scattered willow scrub. Adjacent to this is a wood dominated by mature alder.

The fields in the south of the site, to the east of the railway line are intersected by drains containing phragmites with occasional mature hawthorns and willows. A reedbed (phragmites) is adjacent to farm buildings.

A line of mature beech is present along Shore Lane to the west of the railway line and the fields on the north side of the lane contain low hawthorn hedges.

Photographs of Site 4 are provided below to give an overview of the types of habitats present.



##### Field Survey Results

Various target/SPA qualifying species were identified during both surveys at Site 4 albeit in relatively low numbers. Most of the records were restricted to the northwest compartment (wet and marshy grassland) of the site between the railway line and estuary, as shown on the maps below.

During the first survey, Oystercatcher were recorded across the northwest compartment, including some offsite, slightly to the west and adjacent to the estuary. Most were feeding in the fields with some flying both in and out of the site. The peak count for Oystercatcher onsite was 6, however 34 were recorded just offsite. Low numbers of Black-headed Gull, Common Gull, Herring Gull and Lesser Black-backed Gull were recorded onsite, along with one Little Egret (all in the northwest compartment, with the exception of one Herring Gull towards the southeast corner of the site). There were 3 Curlew recorded onsite and one just

offsite to the west which flew south low over the field. A further 18 Curlew were recorded offsite, approximately 175m north.

During the second survey, the same species of gulls were recorded as the first survey and still in relatively small numbers, although a peak count of 26 Lesser Black-backed Gull and 20 Black-headed Gull were recorded onsite. There were 62 Oystercatcher recorded just offsite to the west, foraging in the adjacent field and 3 recorded on the site boundary in the northwest. An individual Water Rail was heard calling from the reedbed located just offsite (between the railway and Coastal Road).

Although they are not mapped due to flying high overhead and not using the site specifically, approximately 180 Pink-footed Geese were recorded in three separate groups throughout the first survey in December. Two groups were flying towards the northwest (70 and 50) and one group (60), flew towards the southwest.

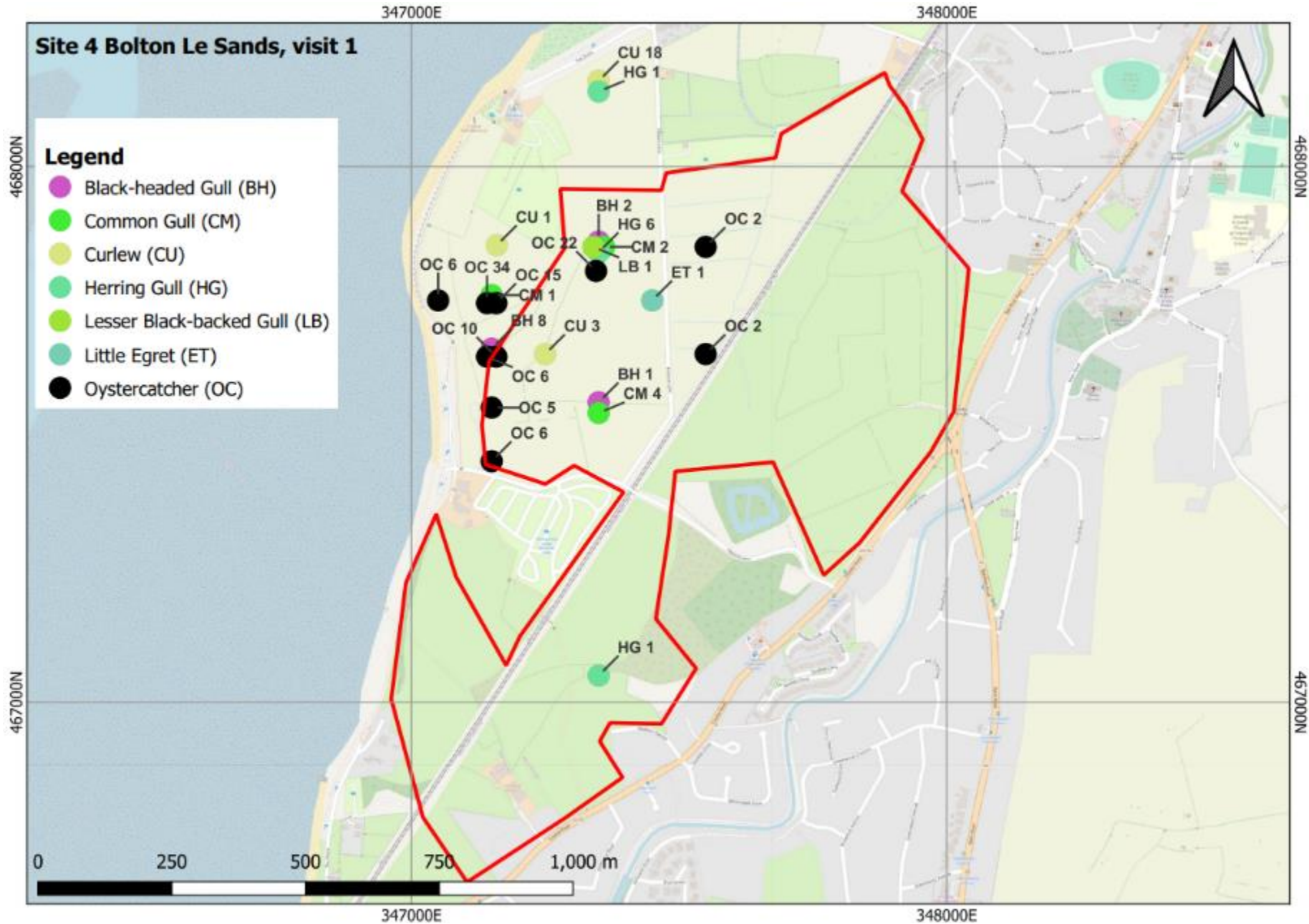
During the surveys at Site 4, other priority species (S41 NERC Act) were present including 26 House Sparrow (two of which were singing males), 11 Linnet (plus one flying over), one Reed Bunting (male singing), three Skylark, one Song Thrush (singing male), 675+ Starling (with a peak count of 350+ feeding on a field onsite (just to the west of Pasture Lane) and one Tree Sparrow (heard calling in flight). Other notable red listed species recorded include one Mistle Thrush recorded during the first survey.

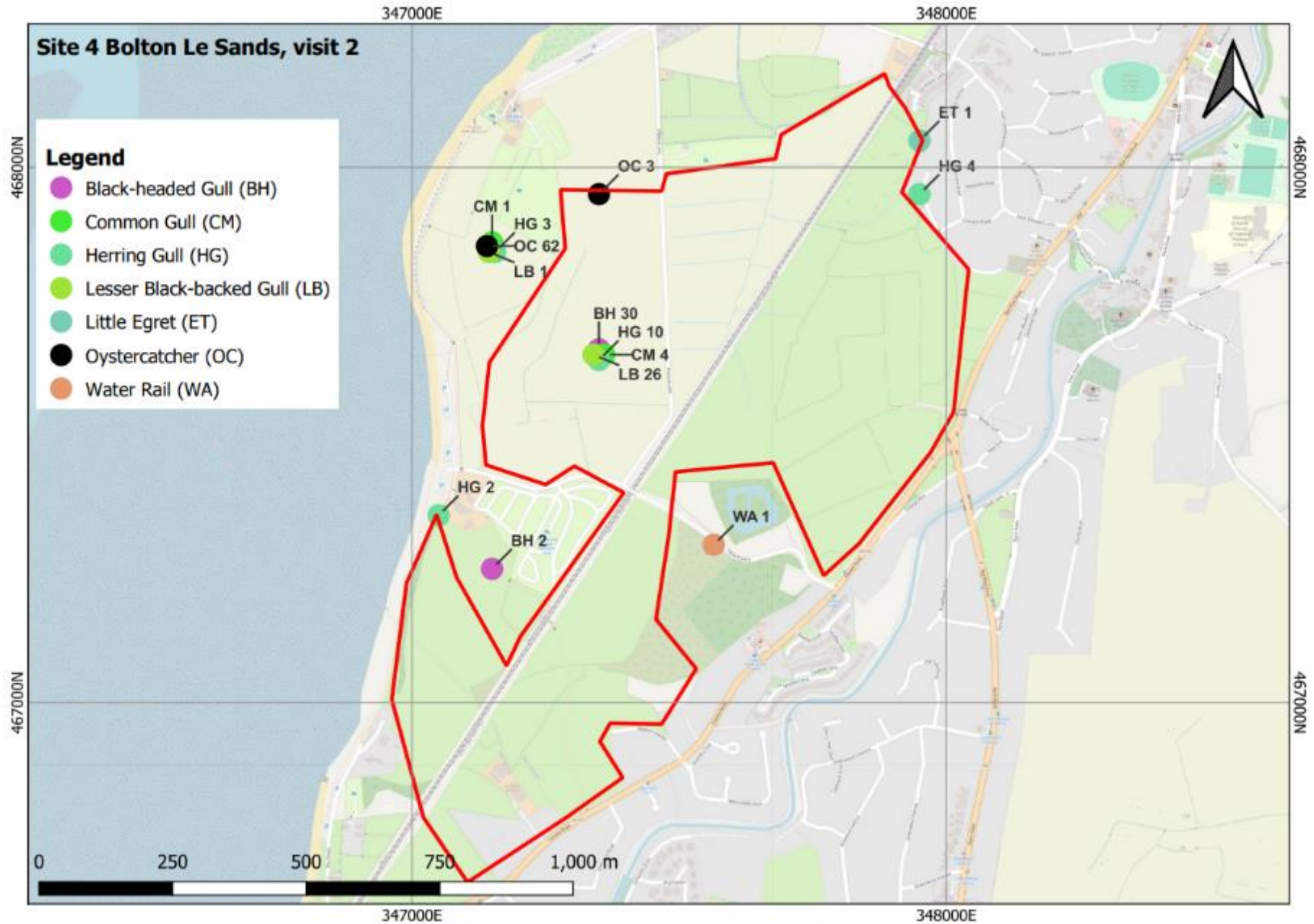
The long field adjoining the east side of the railway line (SD 475 674 north to SD 477 678) was difficult to view because it was obscured by the railway line embankment. The only vantage point it could be viewed from was at the southern end of Pasture Lane at SD 4743 6746. A total of 25 minutes was spent at this VP over the two surveys, and Grey Heron, Moorhen and Magpie were recorded in the field. The rushy habitat should be attractive to wetland birds and it could potentially be a roosting/feeding site for Curlews, Lapwings and Snipe, however the latter species would be difficult to detect without doing a walkover. The proximity to the railway line might act as a deterrent, although the surveyor had seen Curlew feeding close to the railway line at Torrisholme in the past. There are no PRowS across the field itself or in the adjacent fields to the east of the railway line. There is potential for breeding Lapwings especially if the habitat is enhanced with small pools and ditches and the rushes managed to give sitting birds good lines of sight.

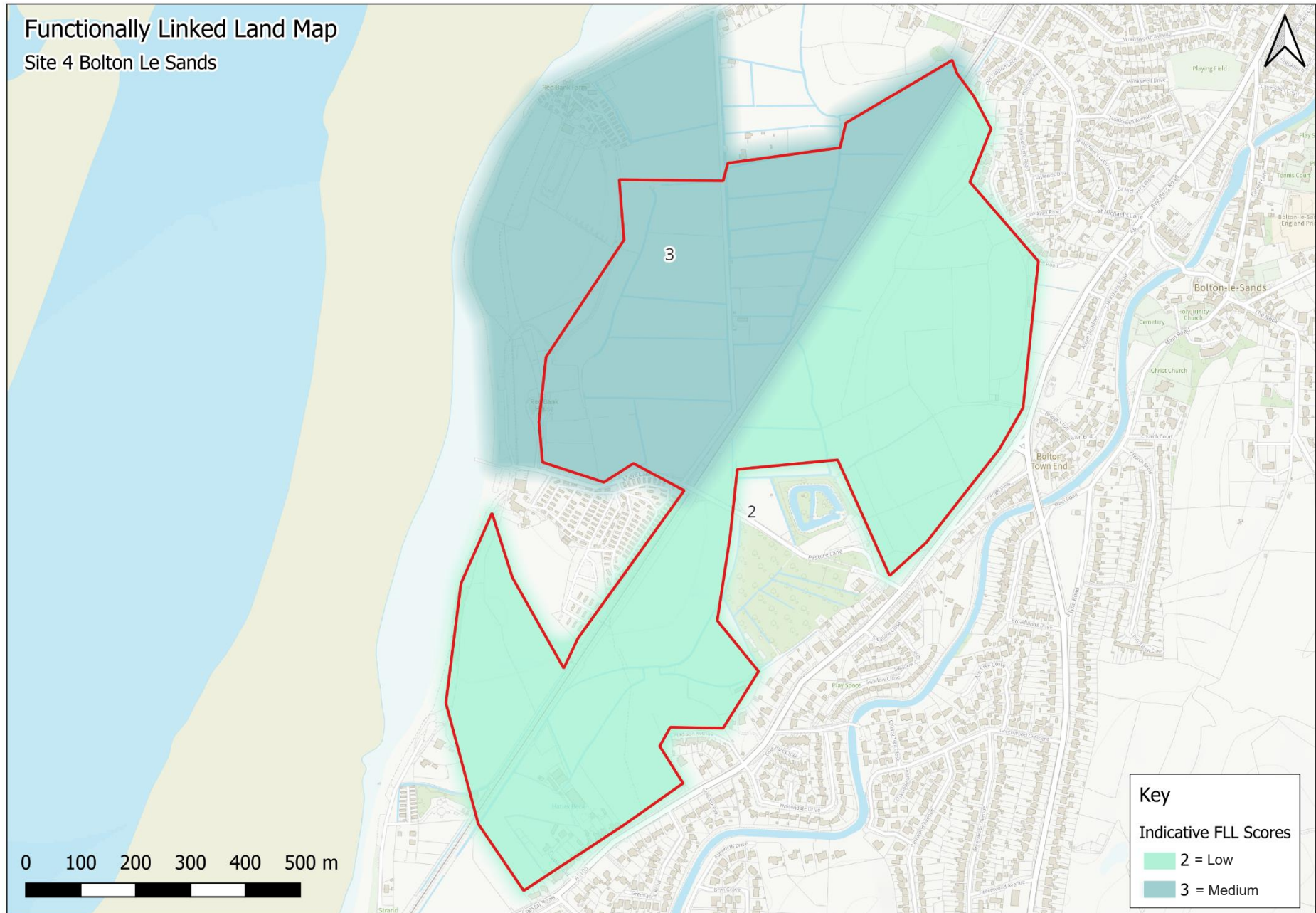
Maps showing the results of the surveys are shown on the following pages.

#### Functionally Linked Land Assessment

Site 4 has been split into two separate compartments, with the northwest section of the site scoring 3 (moderate potential) and the remainder of the site scoring 2 low potential to support wintering birds associated with Morecambe Bay Ramsar and Morecambe Bay & Duddon Estuary SPA and to act as functionally linked land. See FLL Map for Site 4 below.







#### 4.5 Site 5 - Slyne

##### Site and Habitat Description

Most of the fields are improved grassland with just three fields grazed by sheep on the day of the first survey. They are relatively large and separated by low hawthorn and elder hedges. Along Ancliffe Lane the hedgerows are dominated by sycamore with some elder, hawthorn and holly. The field to the east of Ancliffe Lane, north of Ancliffe Hall, was partially flooded adjacent to the lane and contains mature hawthorns and sycamores on the eastern slope, with a stand of old, mature beech extending for 150m in the north. A few mature ash trees are growing in the hedgerows in the field to the north, east side of Ancliffe Lane.

One large field of maize stubble extends from Main Road (A6) to the western site boundary and held a pool of standing water. A large, old ash stands in the field to the south (improved grassland) and three mature ash are in a low hawthorn hedge in the interior of the field. A low sycamore hedge forms the boundary of both fields with the A6. To the east of the A6, north of Slyne Hall Heights a steep slope contains rank grass and gorse.

Photographs of Site 5 are provided below to give an overview of the types of habitats present.



##### Field Survey Results

Various target/SPA qualifying species were identified during the surveys at Site 5, however the dusk/evening survey resulted in very little recorded onsite.

During the first survey, relatively large numbers of Curlew were recorded across the site, however the surveyor noted that it was likely to be the same flock dispersing across the site and feeding in different fields throughout the course of the day, therefore it was challenging to identify exact numbers present. However, a peak count of 116 Curlew were recorded on a field towards the south of the site, slightly east of Slyne Road. Good numbers of Oystercatcher were recorded, including a peak count of 272 just offsite to the northeast. Relatively good numbers of Black-headed Gull and Common Gull were recorded, plus slightly lower numbers of Herring Gull. To the west of Slyne Road, 50 Curlew flew low east over the A6 and landed in the fields to the east of Slyne Hall Heights. Additionally, one Snipe was recorded circling above the site and four Curlew were feeding in an improved field. The surveyor noted that high tide at Morecambe Bay was at 06:10am, low tide at 12:52pm, and the flock of 50 Curlew were observed at 08:50am, therefore the Curlew (and other birds such as Oystercatcher) would have had the option of feeding in Morecambe Bay but chose to exploit a food resource on the improved fields (e.g. possibly earthworms). It is worth noting that there are no PRowWs across the fields in which most of the curlew and the flock of 270 oystercatchers were feeding, so the birds were relatively undisturbed throughout the day.

The second survey was a dusk/evening survey and very little bird activity was recorded, although it was challenging to see in the distance with the infrared camera being used and the undulating land also made this difficult. Only one Lapwing and one Oystercatcher were recorded during the survey, both just offsite to the northeast. Additionally, a flock of Pink-footed Geese were heard flying overhead, however it was too dark at the time they flew over to identify how many birds were present or which direction they were flying in.

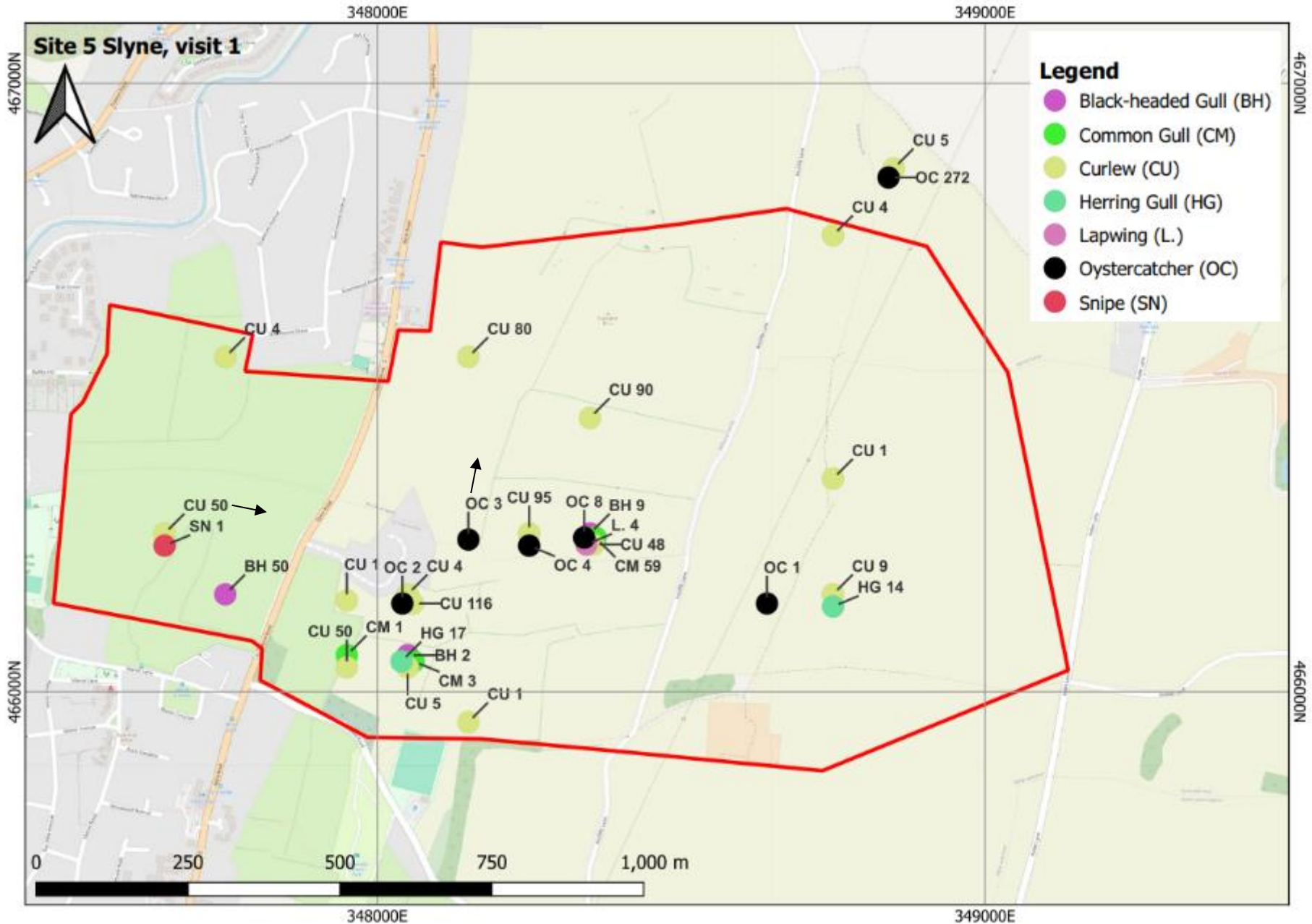
During the third survey, relatively small numbers of target/SPA qualifying species were recorded which included Black-headed Gull, Herring Gull and Oystercatcher (some flying low over site, as shown on map). A peak count of 35 Lesser Black-backed Gulls were observed within a field towards the northeastern extent of the site. Additionally, during the third survey, the wetland area including the large waterbody to the northeast of the site was visited/surveyed, various gulls (including 41 Common Gulls) and a peak count of four Teal (two pairs feeding in flooded area) were observed here. Three Curlew were recorded onsite, one flew south with the other two feeding in the fields towards the southeastern extent of the site. Seven Lapwing were observed to the west of Slyne Road within the maize stubble field, with two noted at an occupied nest and the other five within suitable nesting habitat.

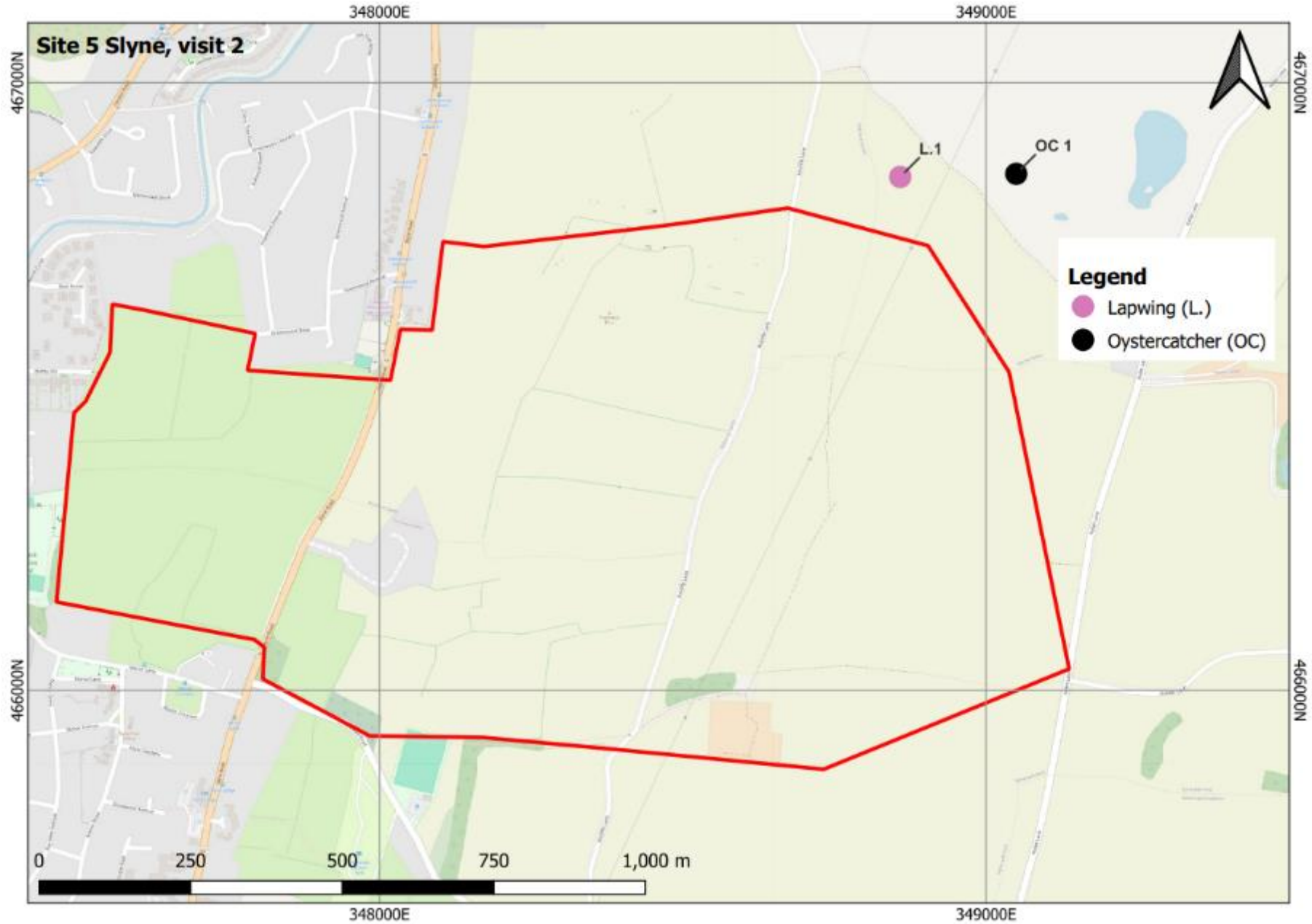
During the surveys at Site 5, other priority species (S41 NERC Act) were present including 24 House Sparrow (two of which were singing males), one Linnet, three Song Thrush and 245+ Starling (with a peak count of 200+ feeding on a field towards the northern extent of the site). Other notable red listed species recorded include one Mistle Thrush recorded during the third survey.

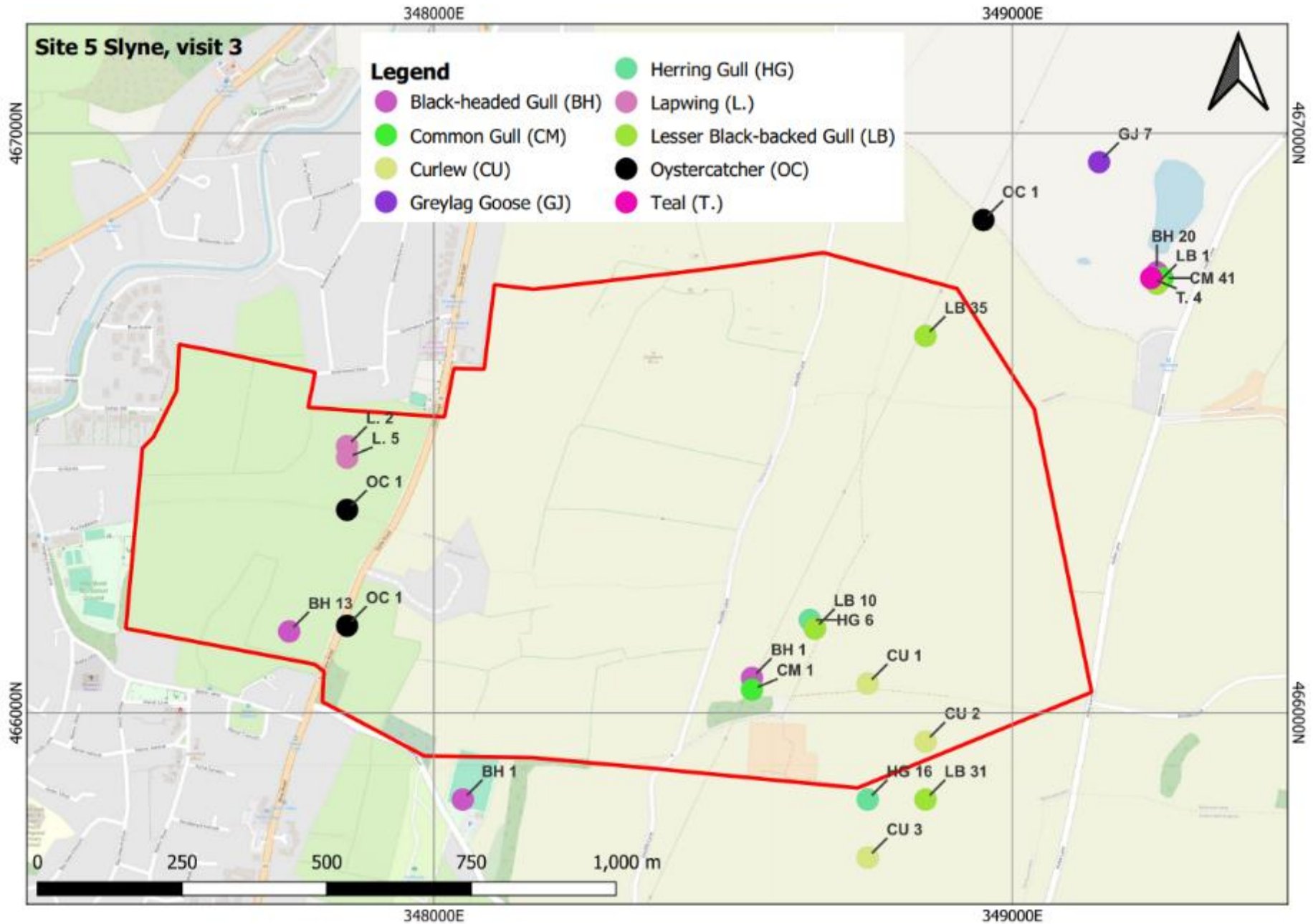
Maps showing the results of the surveys are shown on the following pages.

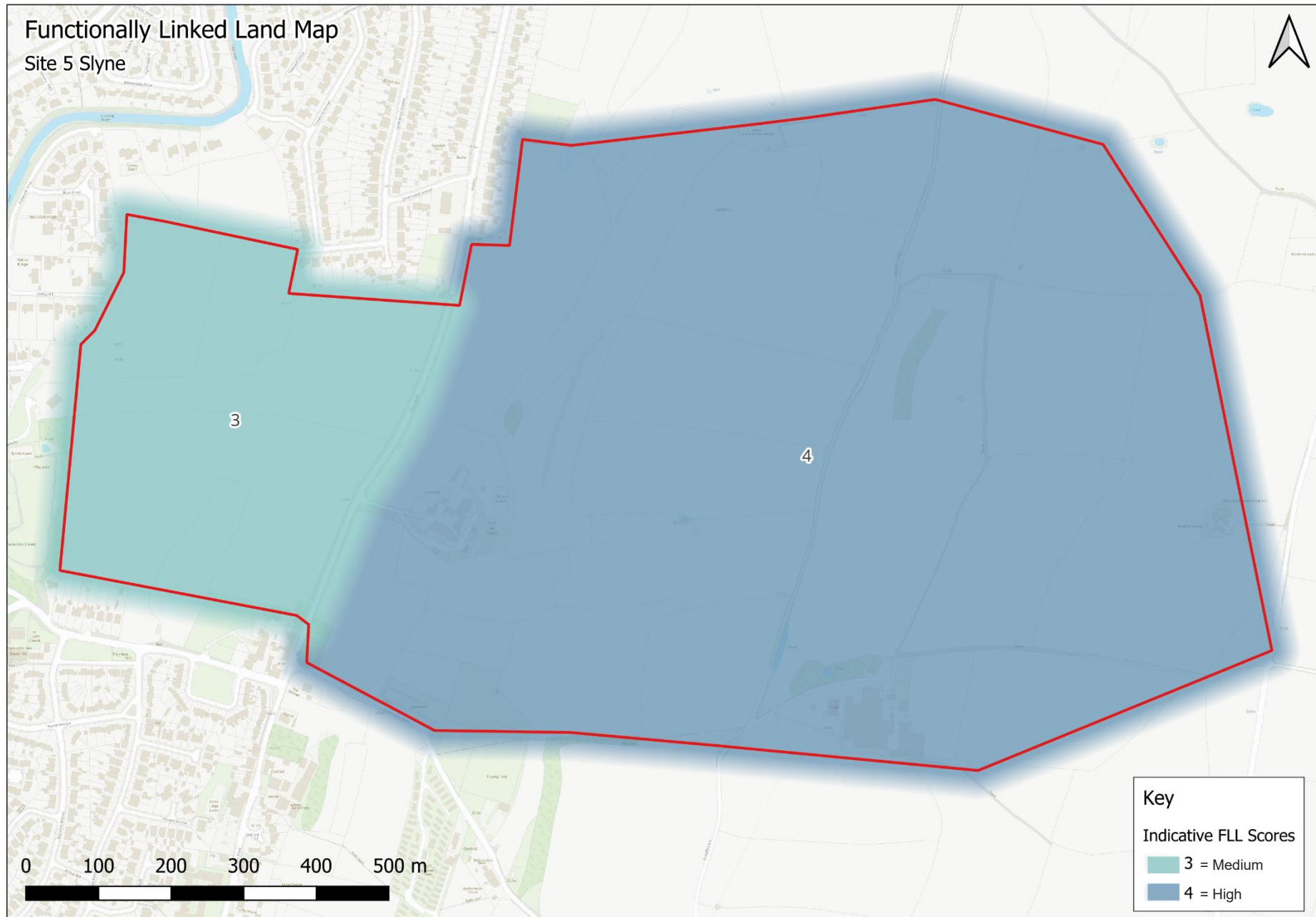
#### Functionally Linked Land Assessment

Site 5 scored 3 to the west of Slyne Road and 4 to the east of Slyne Road, which is moderate and high potential respectively, to support wintering birds associated with Morecambe Bay Ramsar and Morecambe Bay & Duddon Estuary SPA and to act as functionally linked land. See FLL Map for Site 5 below.









#### 4.6 Site 6 – Torrisholme

##### Site and Habitat Description

The site mostly comprises arable fields and grazing pasture. A railway line runs down the eastern boundary and through part of the site towards the northern extent.

To the south of Slyne Road, the fields were predominantly arable, with evidence of maize planting, but comprising stubble and mostly bare earth when the surveys were undertaken. The arable fields were bordered by hedgerows which were well-managed and some recently flailed. The common species found included hawthorn, blackthorn, elder, ivy and bramble with occasional oak.

Towards the south-west corner of the site was semi-improved grassland fields which may occasionally be used for grazing, although not at the time of the surveys. There were hedgerows with trees bordering the fields with species including ash, holly, hawthorn, elder, rose, sycamore and ivy. A small ditch network was present and holding water at the time of the survey, albeit quite shallow after recent rainfall.

To the north of Slyne Road, the fields predominantly consisted of pasture and semi-improved grassland with areas of juncus present. The fields were mostly bordered by post and barbed wire fences, with some hedgerows and treelines present. A railway line dissects the site from east to west, and also runs adjacent to the east boundary of the site.

Torrisholme Barrow was within the site which is a scheduled monument and comprises a small pasture grassland hill. There were various scattered mature parkland trees present along historic tree lines and a small woodland patch (Barrow Hill Woods) located to the west of the hill. There were grazing cows present and it appeared to be a well-used dog walking area.

Photographs of Site 6 are provided below to give an overview of the types of habitats present.



##### Field Survey Results

Limited bird activity was observed during both surveys at Site 6. SPA qualifying species observed were very small numbers of Oystercatcher, Lapwing and Herring Gull. Four Oystercatchers were flying low over the site from west to east during the first survey and one was observed feeding in a pasture field. During the second survey, five Lapwings were flushed from a scrape holding standing water, which was located in one of the maize crop fields, they circled overhead and some landed back on the scrape. Although the habitat to the north of the railway line (with the triangular section of railway lines) appeared to be of higher quality, no target species were observed here during this set of surveys. However, Stephen Atkins surveyed this triangular section in 2017 and found 58 Curlew foraging onsite within the marshy/juncus area and also 57 Curlews to the east of the railway lines, outside of the site

## Lancaster Wintering Bird Surveys 2024-2025

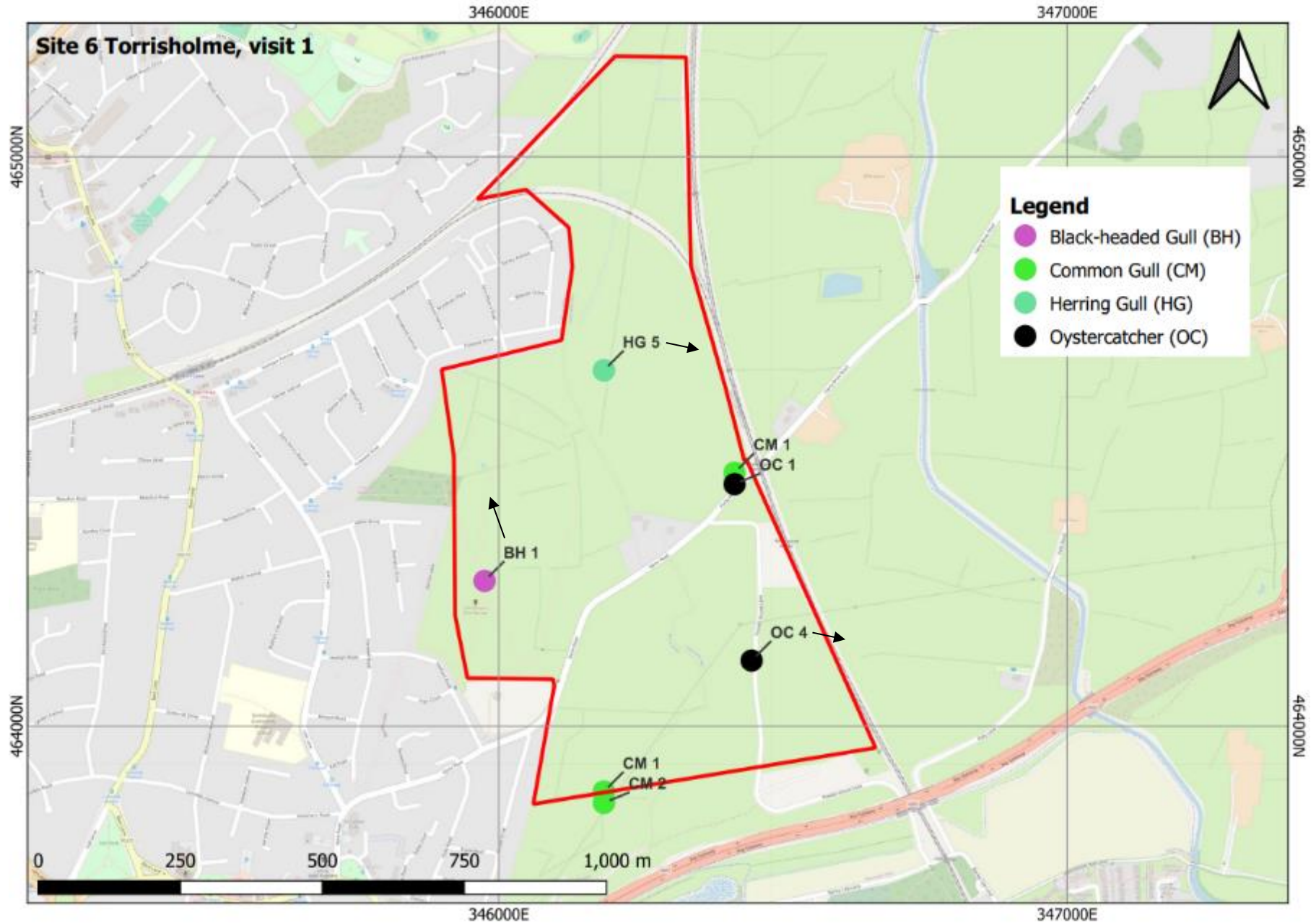
boundary. Other priority species (S41 NERC Act) present in small numbers during the 2024-2025 surveys were Song Thrush and Starling.

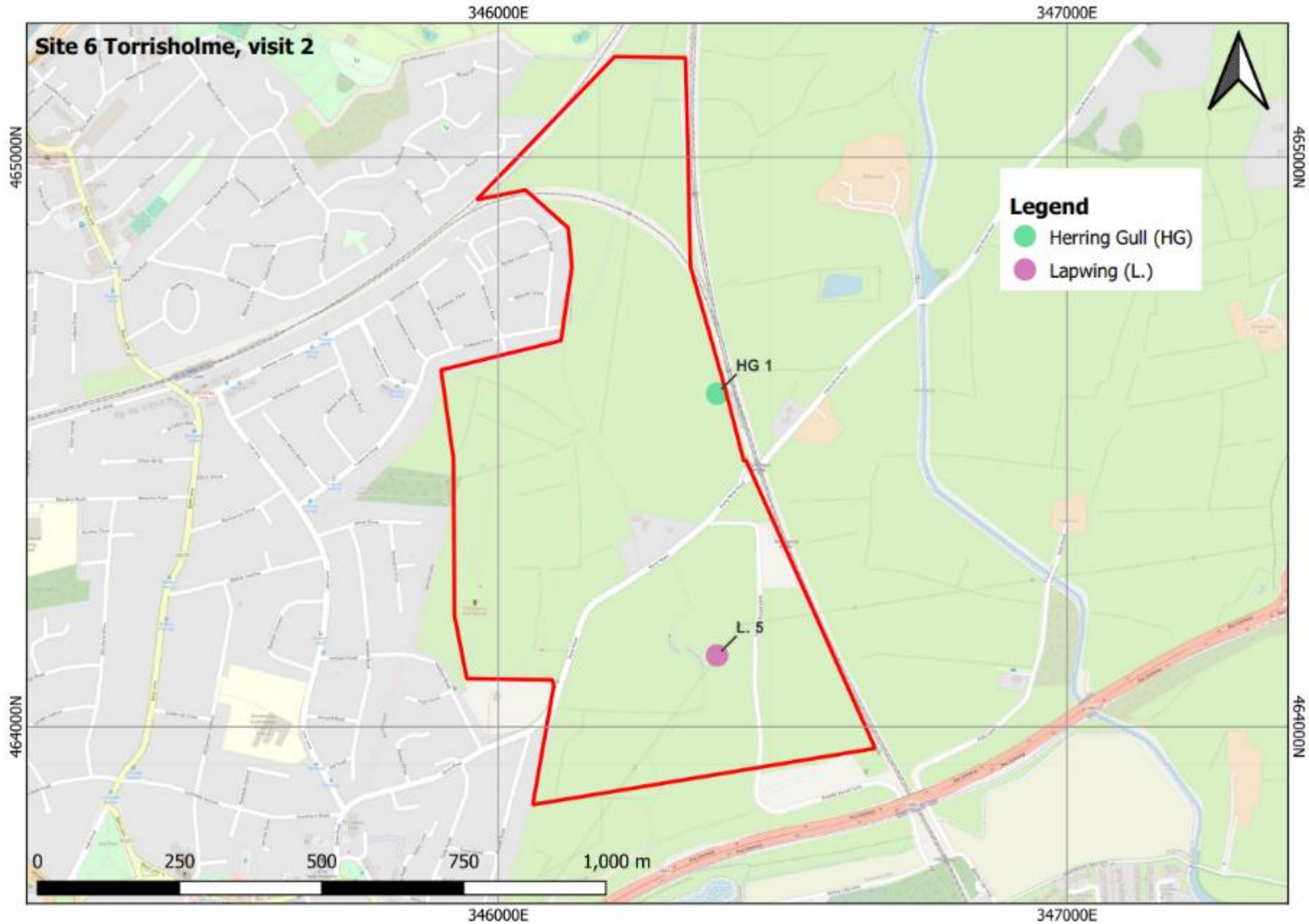
A current outline planning application covers part of the Torrisholme site (Land Off Powderhouse Lane, planning ref: 23/01384/OUT), where bird surveys were conducted to inform the application and therefore additional records are available for the part of this site.

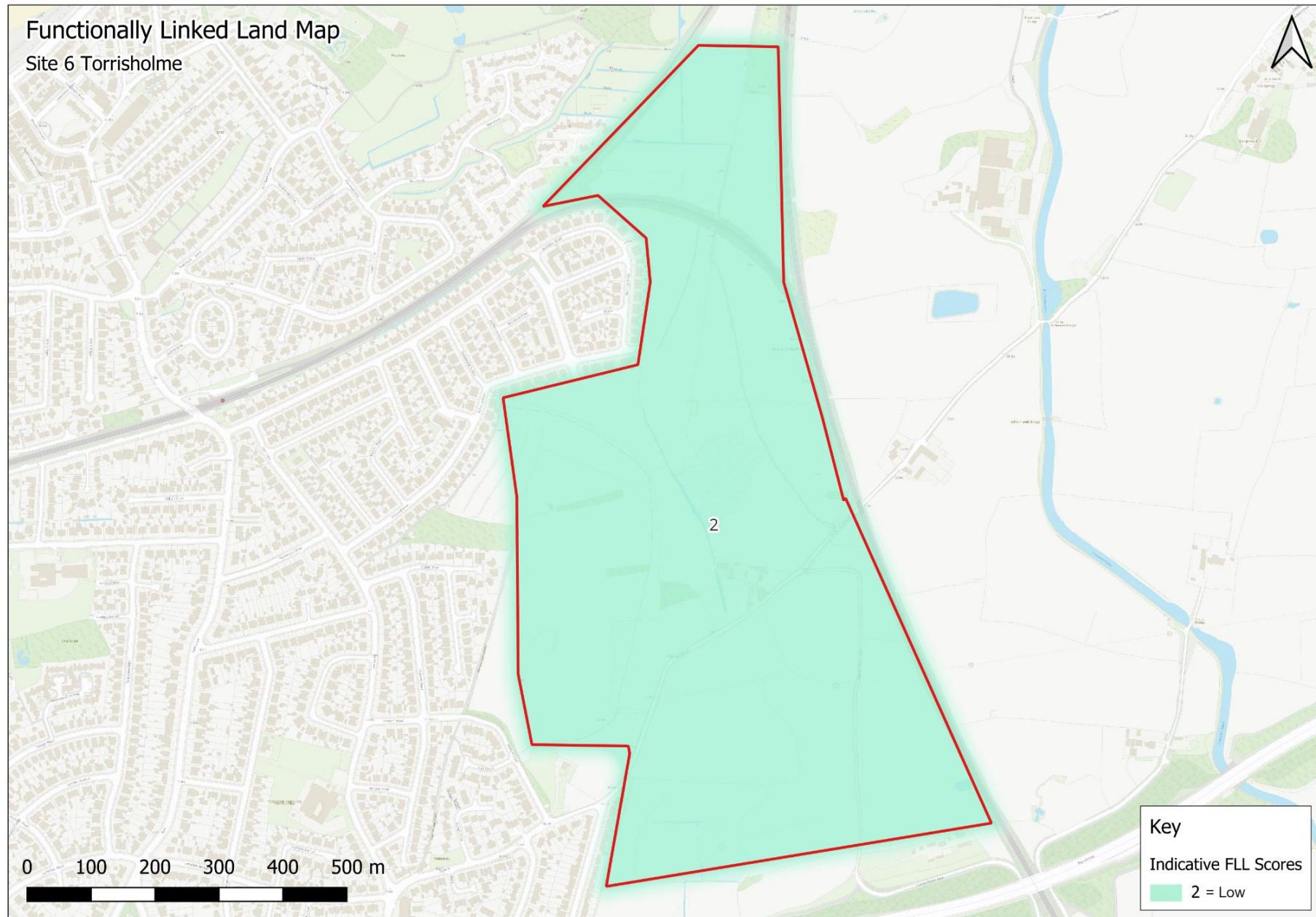
Maps showing the results of the surveys are shown on the following pages.

### Functionally Linked Land Assessment

Site 6 (whole site) scored 2 which is low potential to support wintering birds associated with Morecambe Bay Ramsar and Morecambe Bay & Duddon Estuary SPA and to act as functionally linked land. See FLL Map for Site 6 below.







#### 4.7 Site 7 – Middleton

##### Site and Habitat Description

Most of the fields comprised improved grassland, some of which were grazed by sheep on the day of the first survey and some recently reseeded. Several fields in the north of the site adjacent to Low Road contained improved/semi-improved grassland with tussocky grass (10cm+) and occasional juncus. Mature hawthorns and alders are present along some field boundaries with ditches containing phragmites forming the boundaries of most fields.

One large triangular shaped field in the centre of the site was tilled with bare soil presumably prepared for a crop to be sown. A copse to the south of the ETW contains young oak and ash with a ditch boundary on the north side supporting phragmites. An earth bank (possibly an old field boundary) is present to the east of the ETW and supports mature hawthorns, occasional elder and abundant gorse.

Several fields of improved grassland in the SE of the site, adjacent to the salt marsh of the Lune Estuary SSSI, are contained with a sea wall (grass covered earth embankment) and bisected by a creek containing phragmites. A low hawthorn hedge forms the boundaries between the fields which have probably been reclaimed from the salt marsh. Shallow pools are present in a large field in the northwest of the site which were attracting curlew and redshank.

Photographs of Site 7 are provided below to give an overview of the types of habitats present.



##### Field Survey Results

Various target/SPA qualifying species were identified during the three surveys at Site 7, including waterfowl, waders and gulls. No birds were recorded at the furthest western fields near to the estuary (to the west of Carr Lane, although the fields on the eastern boundary of Shorefields Caravan Park were not visible from the lane, as shown in the associated map in Appendix B.

Access was available across the site along several PROWs, however very few walkers were seen during the surveys, so most of the fields were undisturbed except for occasional agricultural vehicles. During the third survey (17/03/2025), a farmer was rolling the silage fields on the west side of Trailholme farm and the fields in the southeast corner of the site, adjacent to the estuary had recently been rolled.

During the first survey, relatively small numbers of Black-headed Gull and Common Gull were recorded, along with one Lesser Black-backed Gull. Six redshank were recorded feeding at a waterbody/scrape on the western side of the site, along with Mute Swan. A peak count of 76 Curlew were recorded feeding in the north of the site and later 23 Curlew were also recorded feeding in a pasture field towards the centre of the site, possibly from the same flock. One Little Egret was also recorded, along with 70 Greylag Geese which were disturbed by a farmer's vehicle and flew south.

The second survey was a dusk/evening survey, where a thermal imaging camera was used. Significant numbers of Lapwing were recorded onsite, including a minimum of 300+ which were circling overhead and dropped down onto a field towards the northeast extent of the site at approximately 19:05pm. Additionally, eight Lapwing were recorded towards the east boundary and were feeding in the field and an additional 50+ Lapwing were observed flying in from the estuary (from the south) and feeding on the fields towards the south of the site. Small numbers of Oystercatcher were observed and a peak count of five Curlew towards the centre of the site. Three Snipe were flushed on the western boundary and a further 11 were observed feeding in the field. A peak count of 30 Wigeon were recorded in the south-east corner of the site and two separate Little Egrets were also observed.

During the third survey, many target/qualifying species were recorded across the site and just offsite to the south and east. This included small numbers of gulls such as Black-headed Gull, Herring Gull and Lesser Black-backed Gull (with one pair identified but not breeding). Small numbers of Oystercatcher were recorded onsite with a peak count of 20 observed in the estuary to the east of the site. A peak count of seven Curlew were observed towards the centre of the site, feeding in a pasture field, with a further five observed towards the southwest extent of the site (also feeding). Teal, Mute Swan and Little Egret were also recorded onsite in low numbers. There were 34 Whooper Swan observed flying low over the site towards the north. Just offsite in the adjacent saltmarsh/estuary, there were various target species present including Redshank, Shelduck, Wigeon and Greylag Goose (as shown on the maps below).

One Redshank was observed flying over the site towards the northeast during the first survey, with 110 Pink-footed Geese flying northeast and four Whooper Swans flying northwest during the third survey.

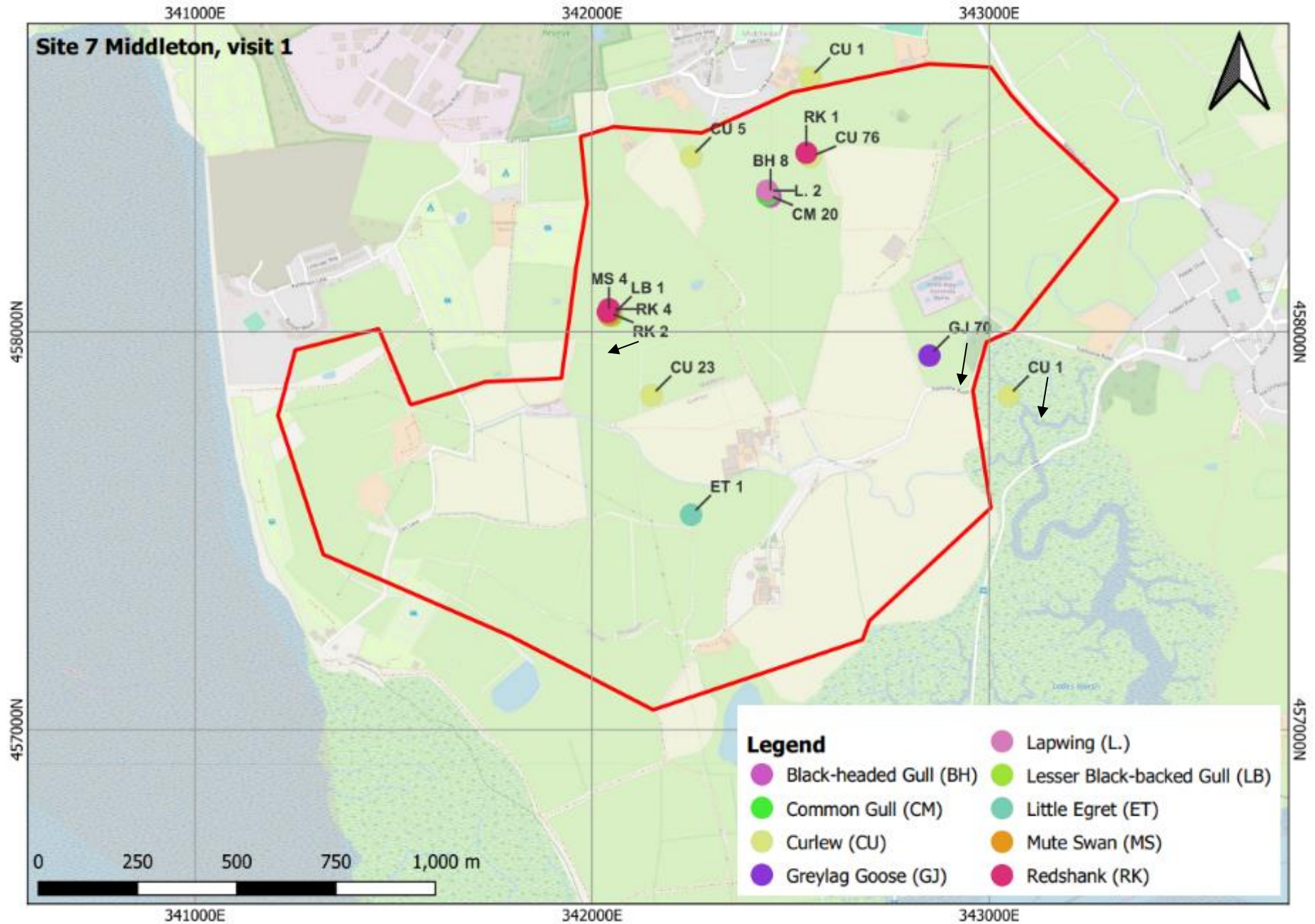
During the first survey, an individual Cetti's Warbler was heard singing twice from a reedbed behind the caravan park, just offsite at approximate grid reference: SD417579. Additionally, an individual Marsh Harrier (female/immature) flew low over the lake adjacent to the south of the site, flushing the ducks (approximate grid reference: SD423569). Cetti's Warbler and Marsh Harrier are listed as a Schedule 1 species under the Wildlife and Countryside Act, 1981 (as amended).

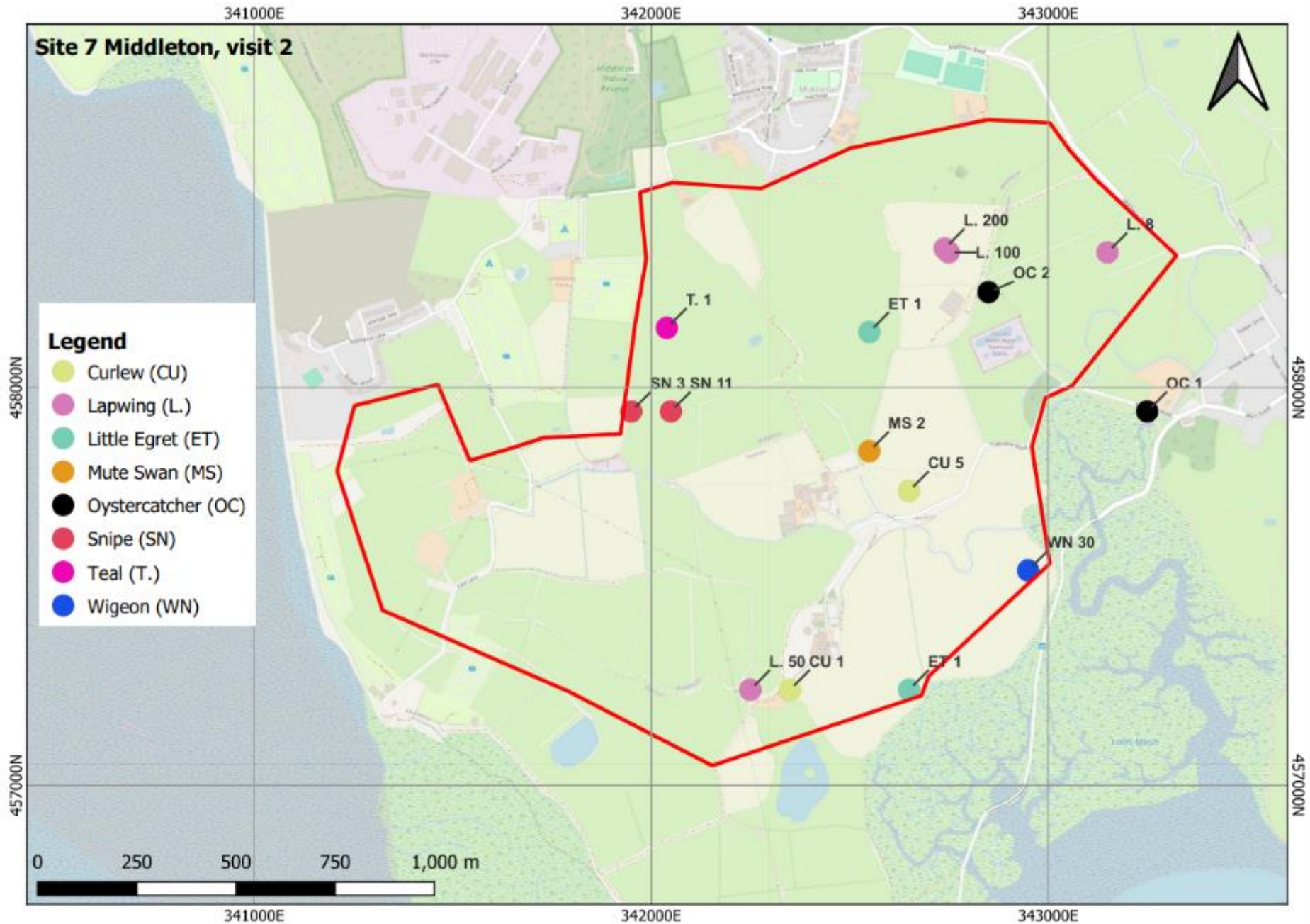
Other priority species (S41 NERC Act) were present including 10 House Sparrow (two of which were heard calling), three Reed Bunting, one Skylark (singing male), one Song Thrush (singing male), 600+ Starling (with a peak count of 150). Other notable red listed species recorded include two Mistle Thrush recorded during the second survey.

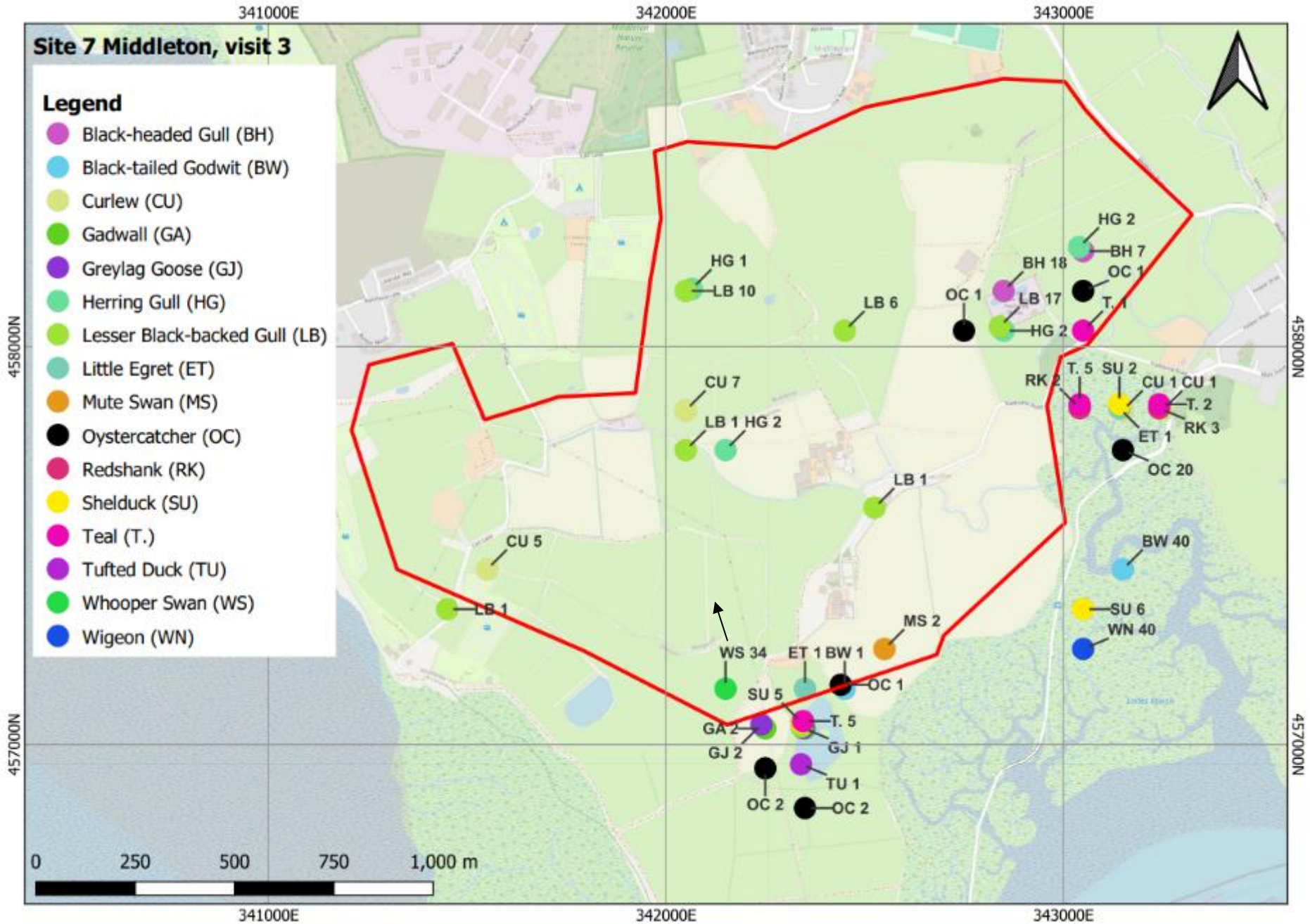
Maps showing the results of the surveys are shown on the following pages.

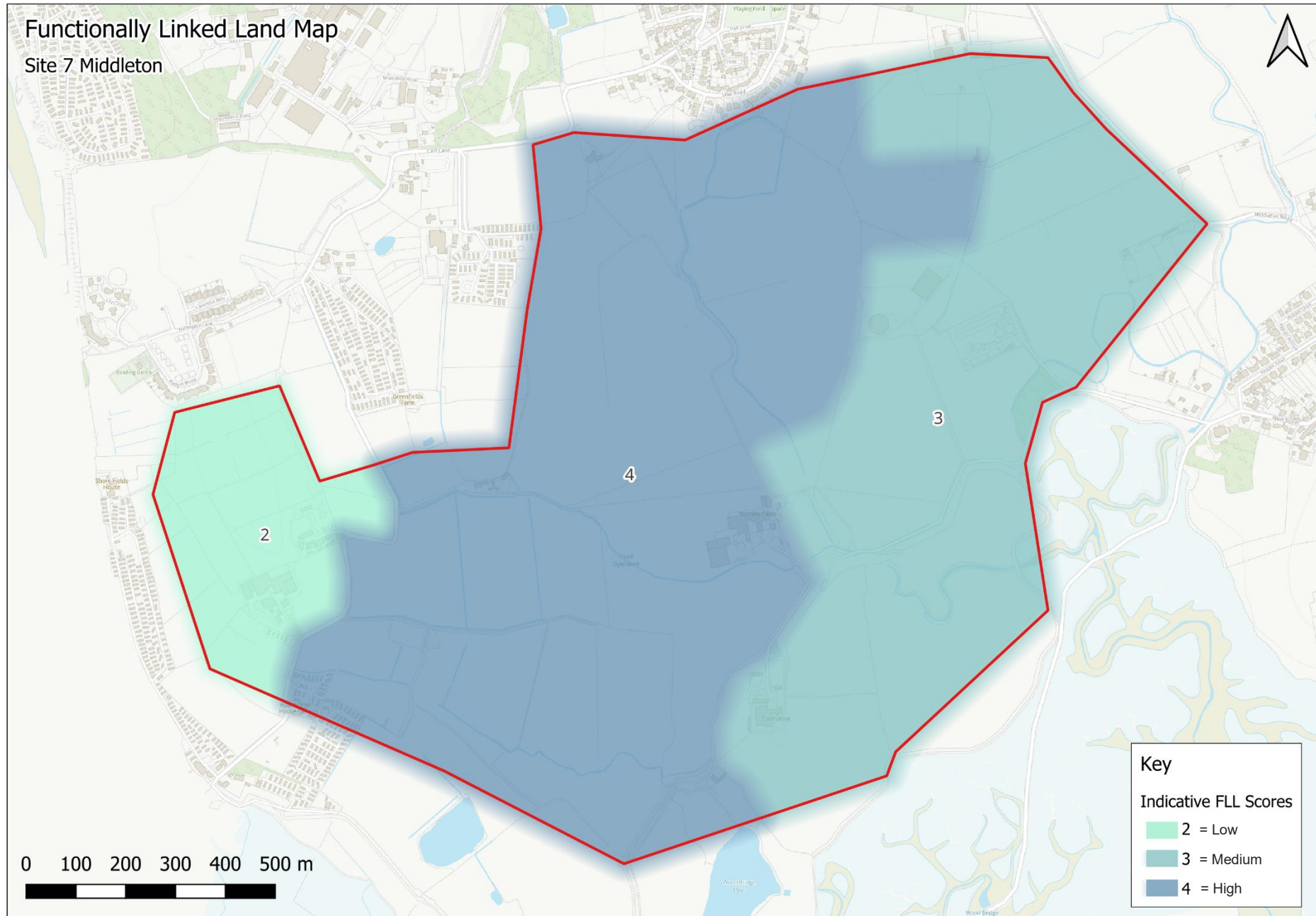
#### Functionally Linked Land Assessment

Site 7 has been split into various compartments for the FLL assessment, ranging from 2 (low potential) to 4 (high potential) to support wintering birds associated with Morecambe Bay Ramsar and Morecambe Bay & Duddon Estuary SPA and to act as functionally linked land. See FLL Map for Site 7 below.









#### 4.8 Site 8 – Overton

##### Site and Habitat Description

The site is bordered by Lancaster Road and Chapel Lane to the west, an unmade vehicle track leading to Colloway Farm to the north and the saltmarsh of the Lune Estuary SSSI (part of the Morecambe Bay & Duddon Estuary SPA) to the east and south. The site is bisected by Yenham Lane (an unmade vehicle track used by farm vehicles) which runs roughly east to west.

North of Yenham Lane the fields are of improved grassland, most grazed by sheep with two possibly growing silage. The fields rise gently to the north up to Colloway Hill (36m asl) and are bordered by low hawthorn and beech hedges. One field adjacent to the lane contains a pond surrounded by trees and a modern wooden barn in the southwest corner.

South of Yenham Lane, the field adjacent to Chapel Lane is improved grassland (ungrazed) and the other fields contain maize stubble with standing water in vehicle tracks. Yenham Lane is bordered on both sides by low hawthorn/elder hedges containing occasional gorse. A few mature ash trees are growing in the hedgerow at the west end of the lane. At the east end, near to the estuary, the PROW is bordered on both sides by an earth bank with a low hedgerow growing on top.

The fields in the south of the site included Dunal Point which was an improved grassland and Wandales Point which contained maize stubble.

Photographs of Site 8 are provided below to give an overview of the types of habitats present.



##### Field Survey Results

A few target/SPA qualifying species were identified during the three surveys at Site 8, along with more just outside of the site to the east and south (e.g. on the saltmarsh/estuary).

During the first survey, a peak count of 15 Curlew and three Lapwing were recorded in the northeast corner of the site feeding within a pasture field. A peak count of nine Black-headed Gull were recorded towards the western boundary and one Little Egret was recorded towards the southeast corner of the site, feeding in the field. There were eight Whooper Swans recorded onsite, two adults with six juveniles and they circled low over the field (immediately south of Yenham Lane), then flew towards the southeast. Helicopter flying nearby. Most notably during the first survey, approximately 700 Lapwings were observed circling high over the Lune Estuary and then landed on the saltmarsh which was only flooded partially at high tide. Other birds recorded on the saltmarsh in low numbers were, Curlew, Shelduck, Redshank and Little Egret.

The second survey was a dusk/evening survey, where relatively low numbers of birds were recorded, although it was challenging to see in the distance with the infrared camera being used. One Curlew was heard calling towards the centre of the site and the remaining birds found were

adjacent to Yenham Lane (to the north and south) which included Lapwing (peak count of three), three Snipe and one Teal (heard calling in flight). No birds were recorded offsite during the survey however this is likely due to it being too dark to record them.

During the third survey, there were quite a few birds recorded onsite with a significant number recorded offsite associated with the saltmarsh and estuary (as shown in the results map). Onsite there were three Curlews recorded which proceeded to fly towards the west. Four Lesser Black-backed gulls and one Little Egret were recorded onsite towards the western boundary, another Little Egret was observed on the southern boundary. Four Shelduck were also recorded along the boundary, towards the southeast extent of the site.

There were 19 Curlew, one Oystercatcher and approximately 380 Pink-footed Geese flying over the site during the first survey. One Little Egret and over 750+ Pink-footed Geese were recorded flying over the site during the second survey. Approximately 345 Pink-footed Geese were recorded flying over during the third survey. Overall, large numbers of Pink-footed Geese were observed flying over the site on each survey.

During the first survey, an individual Marsh Harrier (female/immature) was observed hunting over the maize stubble fields and then flew north over the saltmarsh (at approximate grid reference: SD445580). Marsh Harrier are listed as Schedule 1 species under the Wildlife and Countryside Act, 1981 (as amended).

Other priority species (S41 NERC Act) were present including 24 House Sparrow (including eight within suitable nesting habitat), three Linnet (one flying over), six Reed Bunting (including one female), 67 Skylark (including two singing males), three Song Thrush (including one singing male) and approximately 660 Starling (a combination of flying over and using the site). Other notable red listed species recorded include one Mistle Thrush recorded during the third survey.

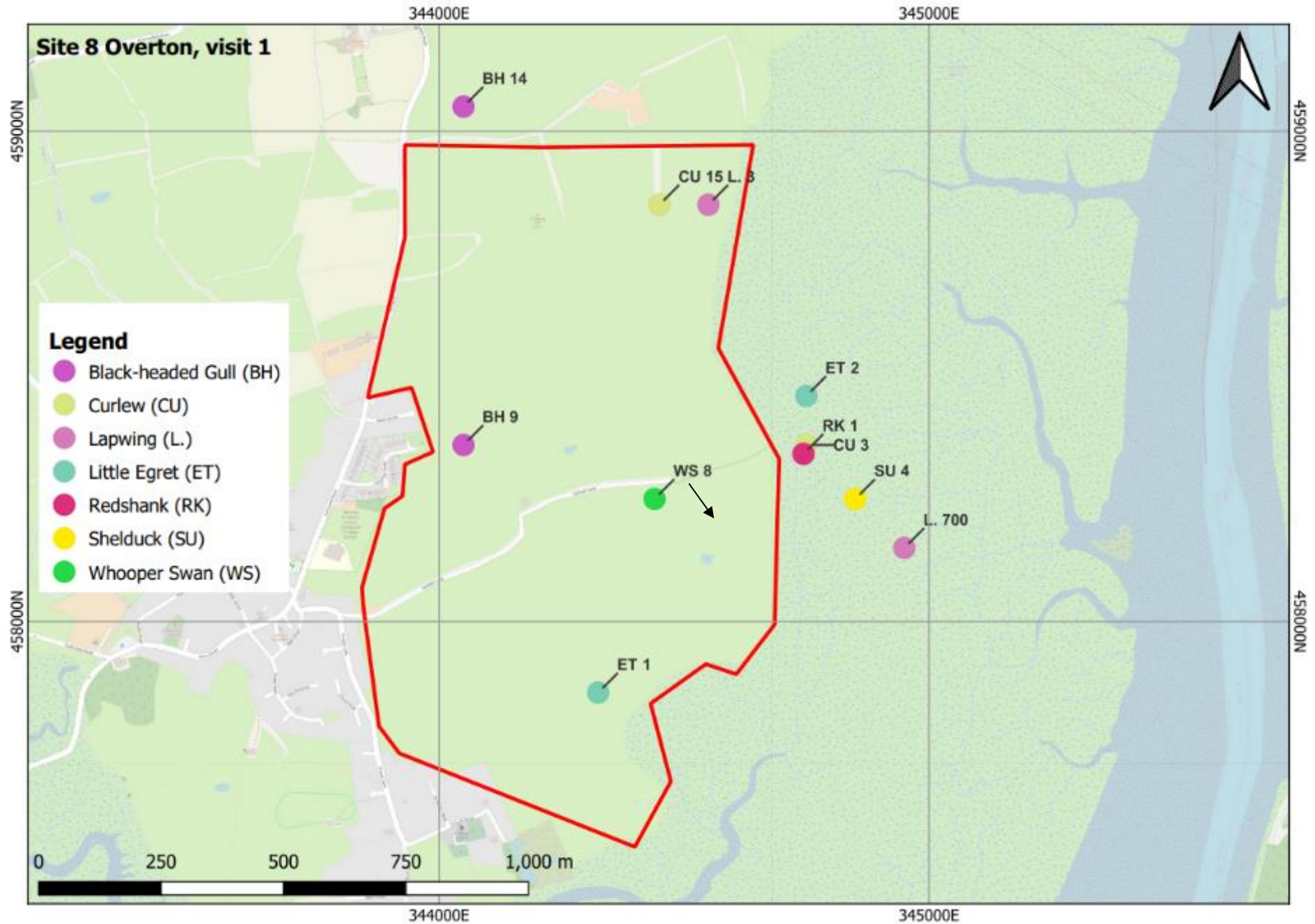
It should be noted that Lapwings are possibly using the fields within the site to feed at night given the proximity to the Lune Estuary and the large flock of 700+ birds seen over the estuary at high tide on the first survey (18/11/2024). Lapwings were heard calling in flight over the fields after sunset on the evening survey on 28/01/2025.

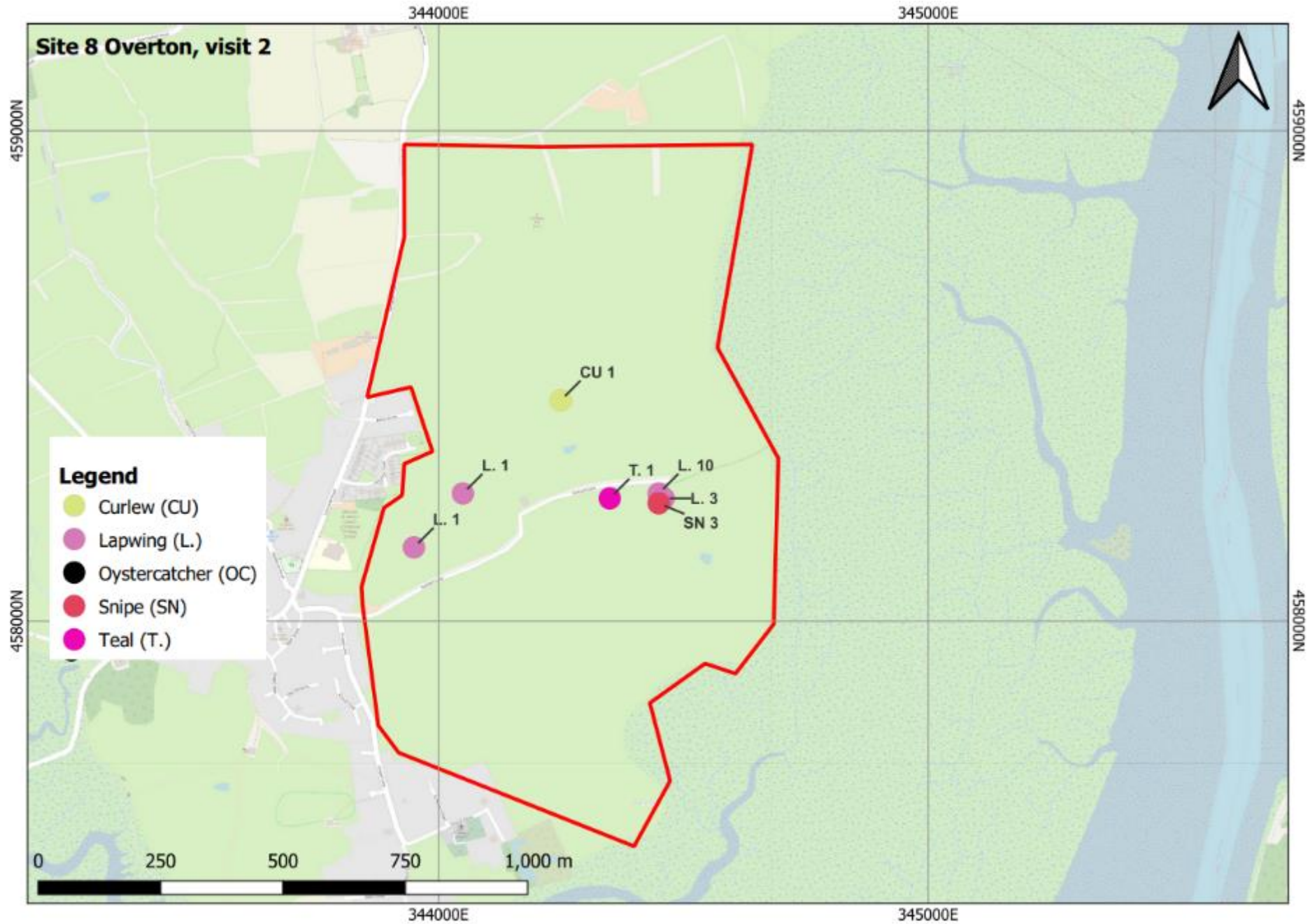
High tide vantage point surveys were conducted from the east end of Yenham Lane (SD 4456 5831) during the first survey (18/11/2024) for a duration of one hour, and from the edge of the salt marsh north of Dunal Point (SD 4444 5767) during the third survey (04/03/2025) for the duration one hour and 15 minutes. The salt marsh partially flooded during the first survey and was 90% flooded on the third survey. Except for 15 Curlew feeding in an improved field during the first survey in November, no ducks, geese or waders were observed using the fields within the site boundary to feed or roost at high tide. The main wader roost for the estuary is located at Sunderland Point, although a small roost was observed in March, as the tide was dropping, on Peggy Marsh Pool (SD446610), approximately 2km to the north of the northern boundary of the site.

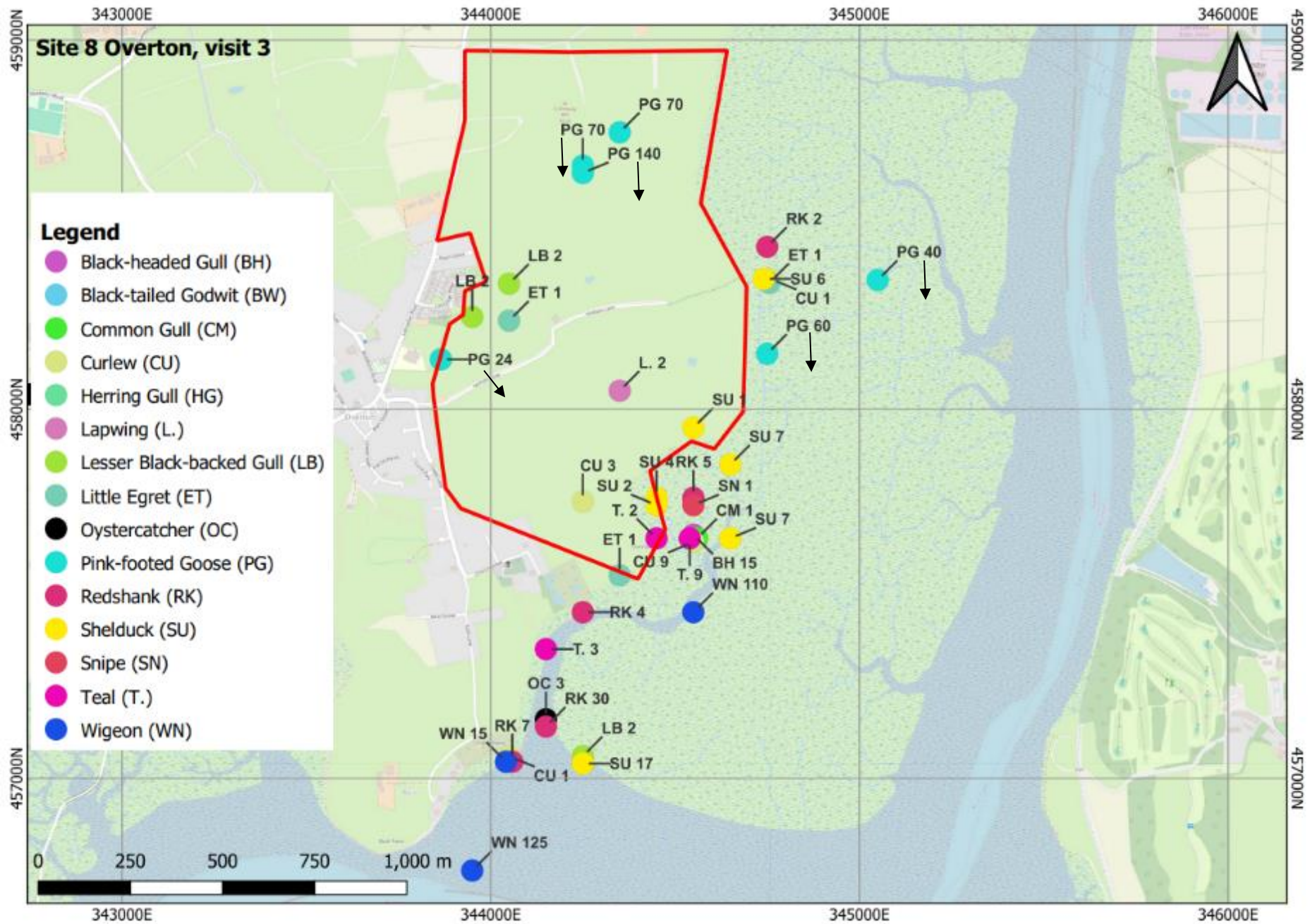
Maps showing the results of the surveys are shown on the following pages.

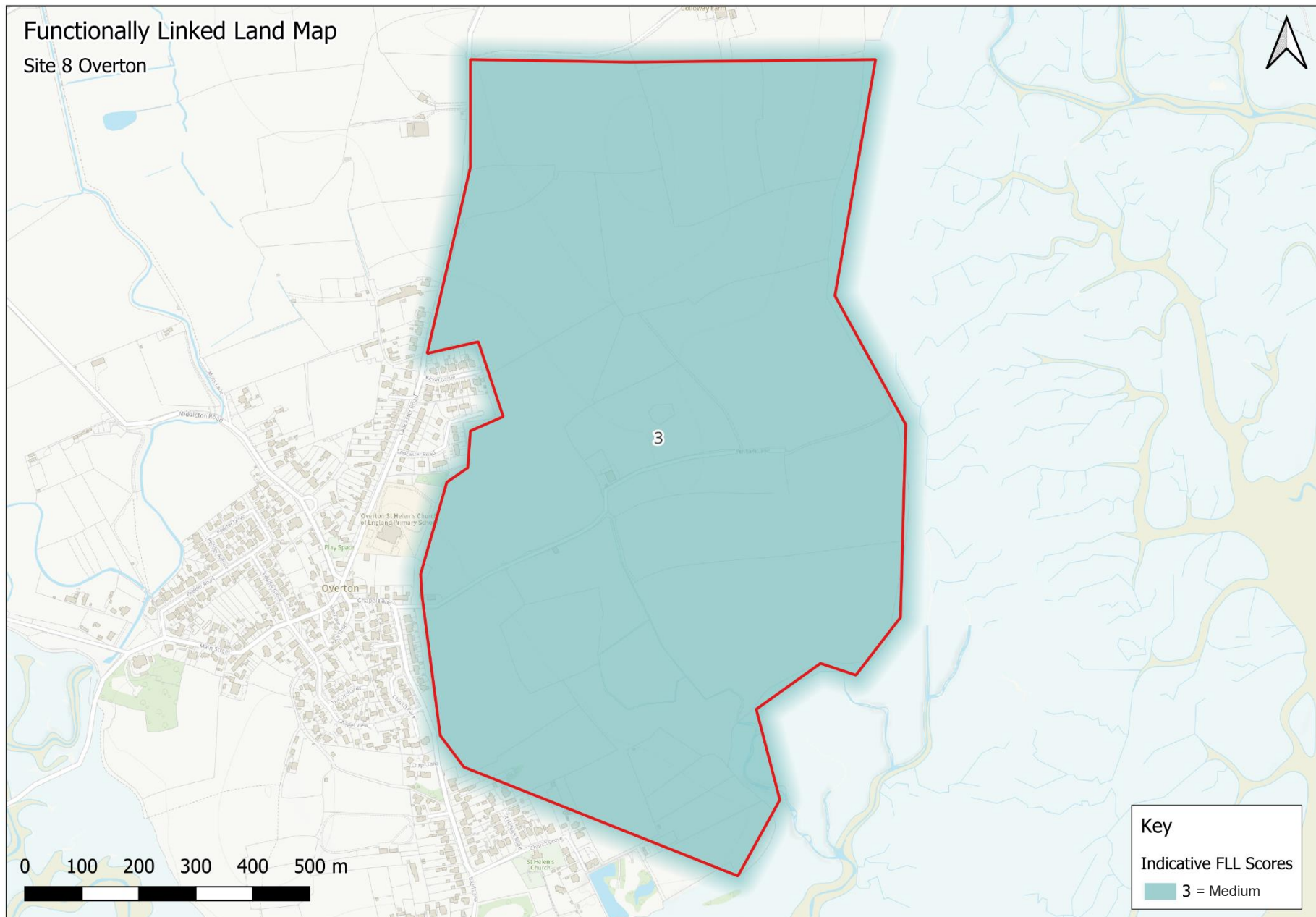
#### Functionally Linked Land Assessment

Site 8 (whole site) scored 3 which is medium potential to support wintering birds associated with Morecambe Bay Ramsar and Morecambe Bay & Duddon Estuary SPA and to act as functionally linked land. See FLL Map for Site 8 below.









#### 4.9 Site 9 – Aldcliffe

##### Site and Habitat Description

The site is located to the southwest of Lancaster and is adjacent to Morecambe Bay Ramsar and SPA along the western edge. The site also borders the hamlet of Aldcliffe, to the north, south and west.

The majority of the site was covered by grassland, with grazing sheep fields scattered throughout. The fields were bounded by hedgerows, with occasional trees present. Various ponds and small waterbodies were also scattered across the site, with a wetter area in the northwest corner. A few fields towards the western edge of the site, to the southwest of Aldcliffe hamlet, were recently sown with crop. Arna Wood solar farm is adjacent to the southwest corner of the site. Most fields were accessed during the surveys, with the exception of a couple of fields to the east of the unnamed road going north towards Aldcliffe and Lancaster Canal. There were a few PRowS dissecting the site.

Photographs of Site 9 are provided below to give an overview of the types of habitats present.



##### Field Survey Results

Various target/SPA qualifying species were identified during all three surveys at Site 9, mostly restricted to the northern half of the site (e.g. northwest of Aldcliffe hamlet/Aldcliffe Hall Lane).

During the first survey, various ducks and waterfowl were recorded using the network of waterbodies located on the far western fields (adjacent to the estuary (Ramsar/SPA)), this included Teal (peak counts of 10), one Shelduck, one Mute Swan and three Snipe. Relatively small numbers of Wigeon, Shoveler, Teal, Oystercatcher and Curlew were also recorded towards the north of the site.

During the second survey, Teal and Wigeon were recorded in relatively small numbers mostly associated with the existing waterbodies onsite. A peak count of 15 Oystercatcher were recorded in the northwest corner of the site, adjacent to the estuary. Redshank were also recorded in small numbers (maximum of two), located towards the fields immediately north and south of Aldcliffe Hall Lane. Two Shelduck were recorded using the network of waterbodies, plus another two located immediately west of Aldcliffe hamlet. One Little Egret was also observed using the waterbodies. The most notable observation during the second survey was 134 Pink-footed Geese recorded foraging in one of the fields towards the northeast of the site (see map for location).

The results of the third survey were similar to the previous two surveys, with most birds restricted to the waterbodies. Various ducks, waders and waterfowl were recorded on or around the waterbodies in relatively low numbers including Teal, Wigeon, Shelduck, Little Egret, Redshank, Oystercatcher and Lapwing. Four Black-tailed Godwits were recorded near to the waterbodies and seven Curlew were recorded towards the northwestern extent of the site.

No other priority species were recorded during the surveys, however the surveyor focussed on recording target/qualifying species only.

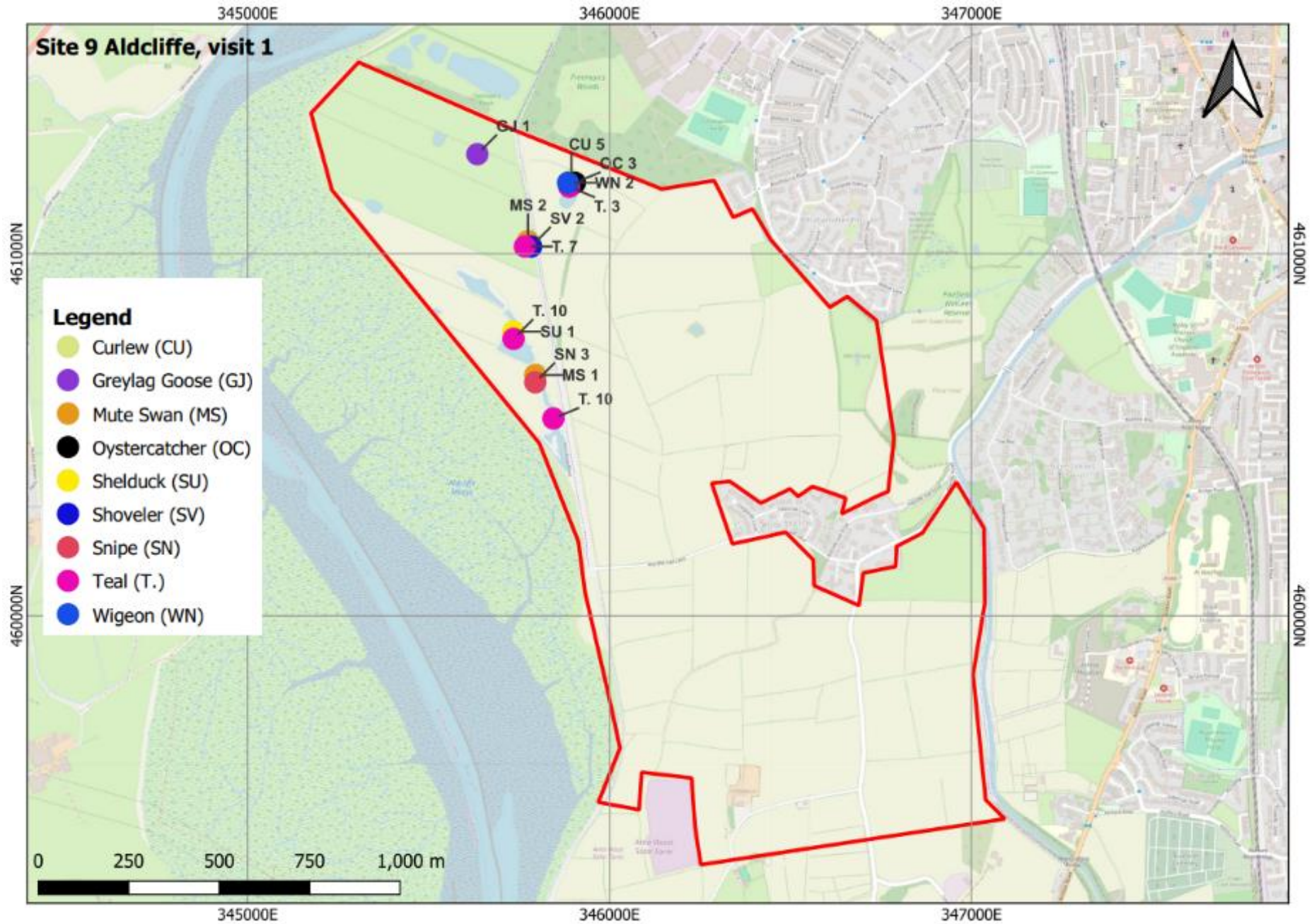
Incidental observations were that birds were recorded moving between the salt marsh and the site, and that bird activity and numbers were higher on the adjacent saltmarsh area. A discussion with a local birder whilst on site suggested that pink footed geese have been recorded in larger numbers in previous years, and that areas of the site had large number of black godwit one year when the sea defences were breached. These records should be with the Lancaster and District Bird Watching Society.

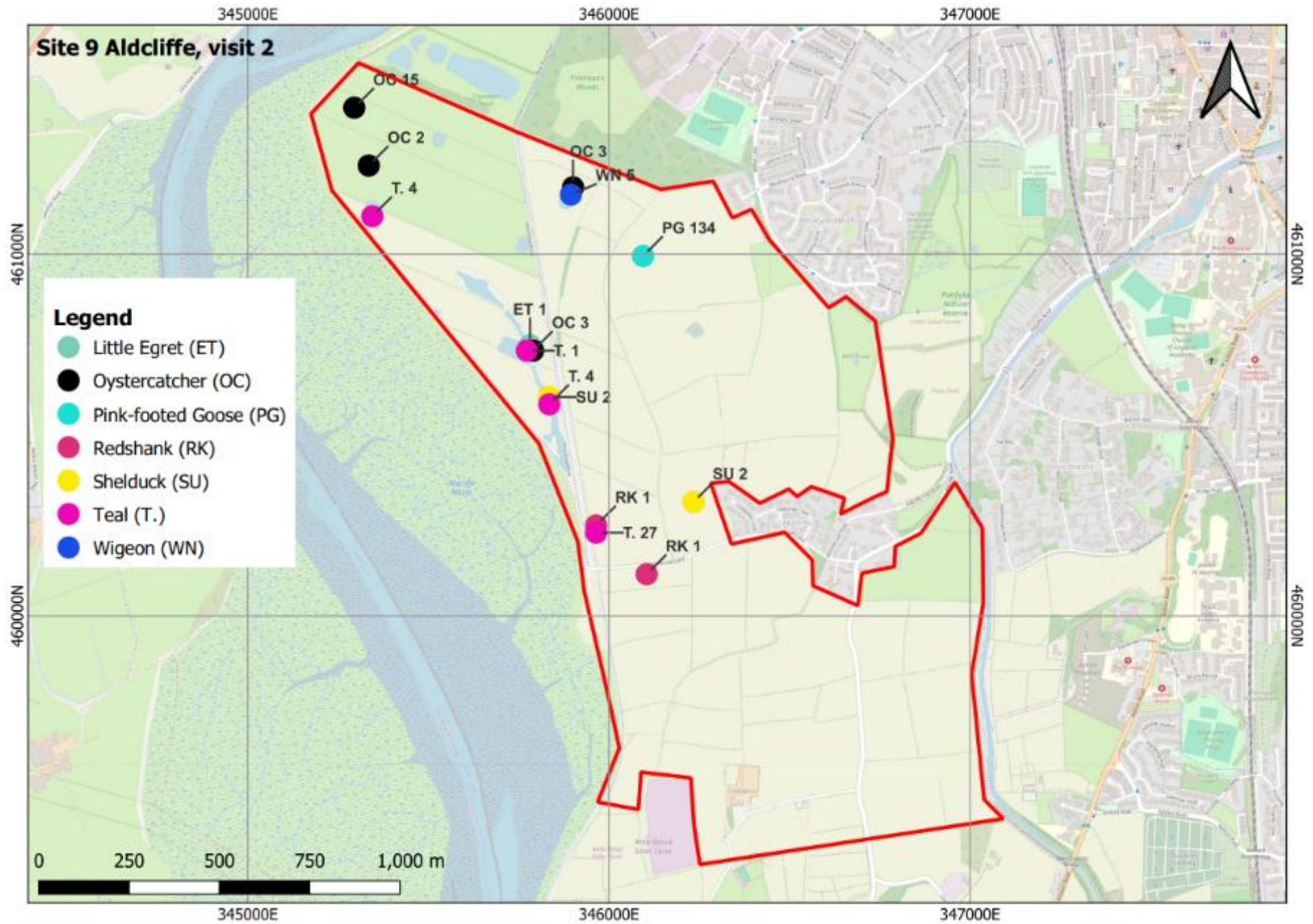
In summary, the existing network of waterbodies located towards the northwest of the site appear to be particularly important habitats at Site 9 for waterfowl and target/qualifying species.

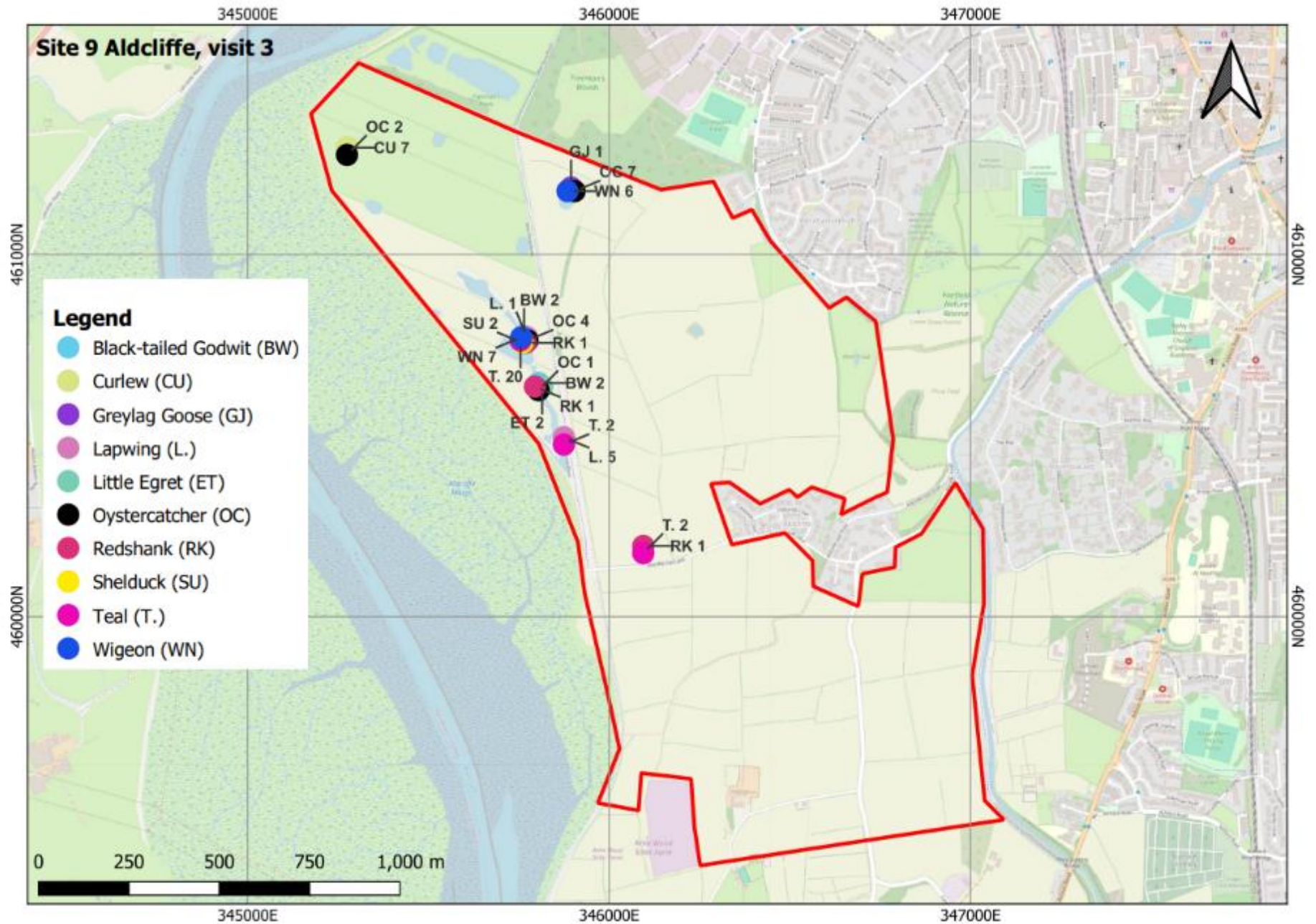
Maps showing the results of the surveys are shown on the following pages.

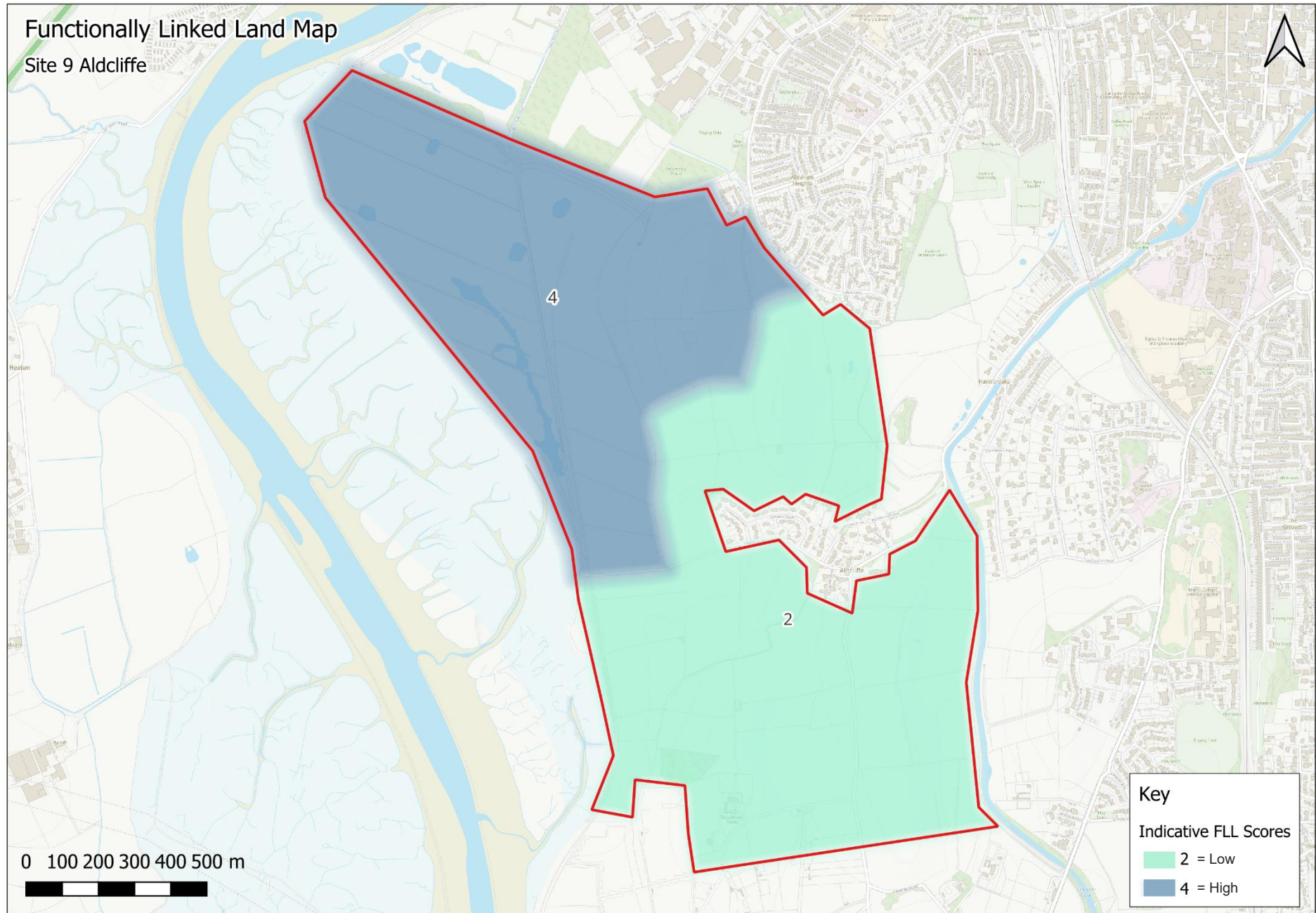
#### Functionally Linked Land Assessment

Site 9 has been split into two separate compartments, with the southern part of the site (south of Aldcliffe Hall Lane) scoring 2 (low potential) and the north of Aldcliffe Lane scoring 4 which is high potential to support wintering birds associated with Morecambe Bay Ramsar and Morecambe Bay & Duddon Estuary SPA and to act as functionally linked land. See FLL Map for Site 9 below.









#### 4.10 Site 10 - Land West of Ashton Road

##### Site and Habitat Description

The site is located to the southwest of Lancaster and part of the site, towards the southwest corner, is directly adjacent to Morecambe Bay Ramsar and SPA. The hamlet of Stodday is located towards the centre of the site. A sewage works are located just offsite towards the northwest.

The majority of the site was covered by grassland, with occasional sheep grazing fields. Two fields to the west of Stodday were recently sown with crop. There were ponds scattered within fields towards the northwest section of the site. Some of the fields could not be accessed due to lack of PRowS or views from nearby roads, this includes fields in the northwest and northeast corners of the site and to the south of Stodday.

Photographs of Site 10 are provided below to give an overview of the types of habitats present.



##### Field Survey Results

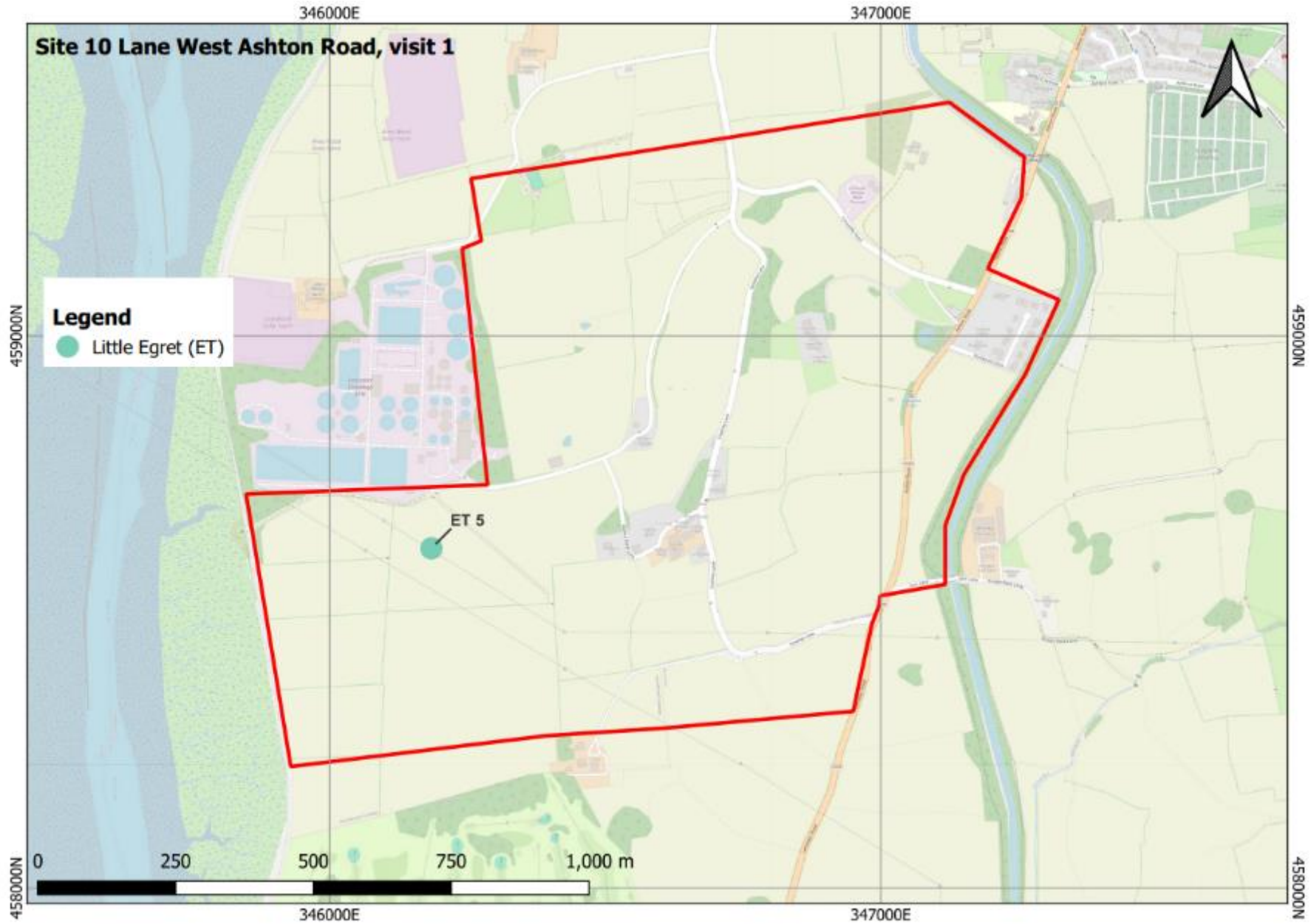
Limited bird activity was observed during both surveys at Site 10. SPA qualifying species observed were small numbers of Little Egret, Oystercatcher, Lesser Black-backed Gull and Curlew. Five Little Egrets were observed during the first survey, and a peak count of seven were recorded during the second survey, these were all recorded in fields relatively close to the estuary. From surveyor knowledge, Little Egrets are known to breed just to the south of the site, within the grounds of Ashton Hall. Five Curlews were observed during the second survey, located in the fields south of the sewage works, near to the estuary.

During the second survey, one Oystercatcher was recorded towards the northeast corner of the site and one Lesser Black-backed Gull was observed towards the centre of the site. There were no target species observed flying over Site 10 during either of the surveys. No other priority species were recorded during the surveys, however the surveyor focussed on recording target/qualifying species only.

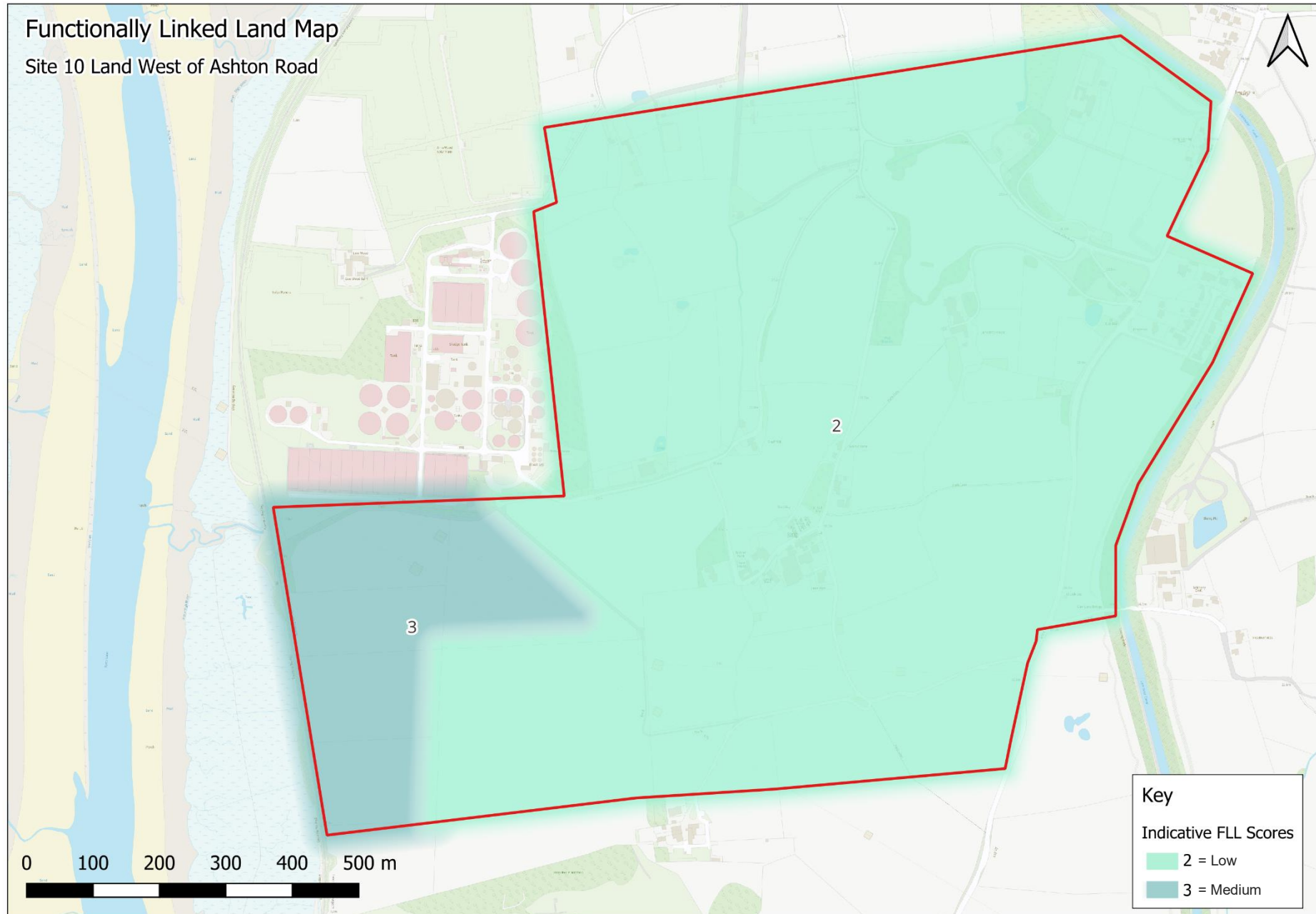
Maps showing the results of the surveys are shown on the following pages.

##### Functionally Linked Land Assessment

Site 10 has been split into two separate compartments, with most of the site scoring 2 (low potential) and the far southwestern fields (adjacent to the estuary) has scored 3 which is medium potential to support wintering birds associated with Morecambe Bay Ramsar and Morecambe Bay & Duddon Estuary SPA and to act as functionally linked land. See FLL Map for Site 10 below.







#### 4.11 Site 11 – South Lancaster

##### Site and Habitat Description

The site is located to the south of Lancaster between Bailrigg to the east and the hamlet of Stodday to the west. The site was bordered by the A6 on the east boundary and Lancaster Canal on the west.

The majority of the site was covered by grassland, with scattered fields of grazing sheep, plus the occasional field containing grazing cows and horses. There was also one field sown with crop towards the south of the site. Burrow Beck runs east to west through the centre of the site, with lack of other waterbodies present. Some of the fields could not be accessed due to lack of PRowS or views from nearby roads, this includes fields in the northwest corner and just north of Burrow Beck.

Photographs of Site 11 are provided below to give an overview of the types of habitats present.

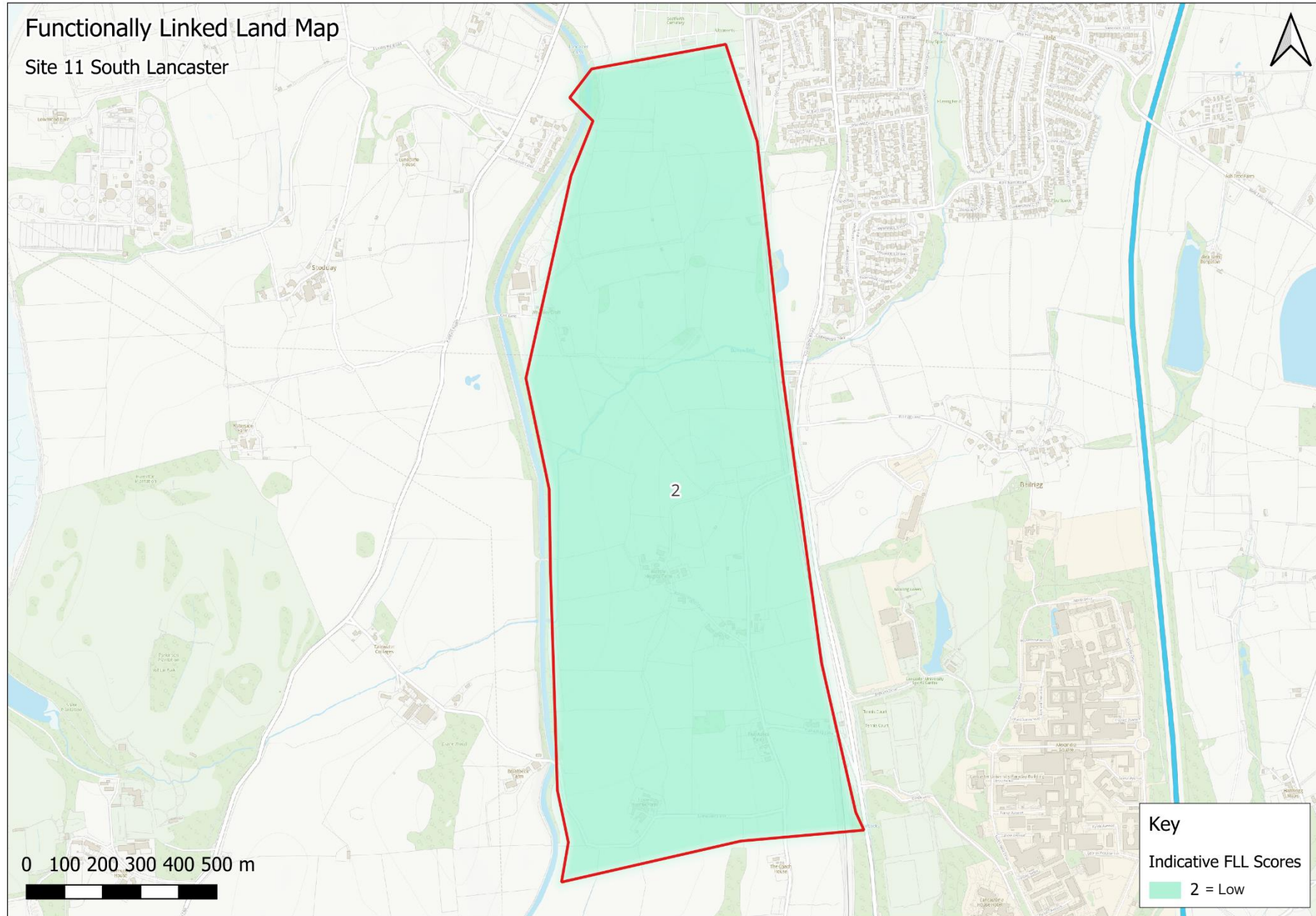


##### Field Survey Results

No SPA qualifying species or target species were identified during either survey at Site 11. No other priority species were recorded during the surveys, however the surveyor focussed on recording target/qualifying species only. There are no maps provided for Site 11, given that no target species were recorded.

##### Functionally Linked Land Assessment

Site 11 (whole site) has been assessed as score 2 which is low potential to support wintering birds associated with Morecambe Bay Ramsar and Morecambe Bay & Duddon Estuary SPA and to act as functionally linked land. See FLL Map for Site 11 below.



#### 4.12 Site 12 - Land East of Ashton Road

##### Site and Habitat Description

The site is located to the north of Conder Green and mostly lies between the A588 to the west and the Lancaster Canal to the east, except for a couple of areas at the northern and southern extents where the site extends to the west of the A588.

Due to a lack of PROWs across the site, only certain areas could be viewed or accessed from the Vantage Points. Quite a large area in the southeast corner of the site was not accessible and therefore could not be surveyed. The site could not be viewed from Lancaster Canal to the east of the site due to the upward sloping topography from the bank of the Canal.

All of the fields that could be viewed were all improved pasture and grazing fields with sheep present in many fields during the survey. There were managed hedgerows bordering most of the fields and along the A588 with species including hawthorn, gorse and sycamore. There were a few mature scattered trees across the site however the species were not identified as no close access was available.

Photographs of Site 12 are provided below to give an overview of the types of habitats present



##### Field Survey Results

Limited bird activity was observed during both surveys at Site 12, mostly restricted to the southwestern corner of the site, towards the estuary. SPA qualifying species observed including Curlew, Lapwing and Little Egret. During the first survey, six Lapwings were observed on a pasture field and during the second survey six Little Egrets were observed feeding on various pasture fields near to Heronswood.

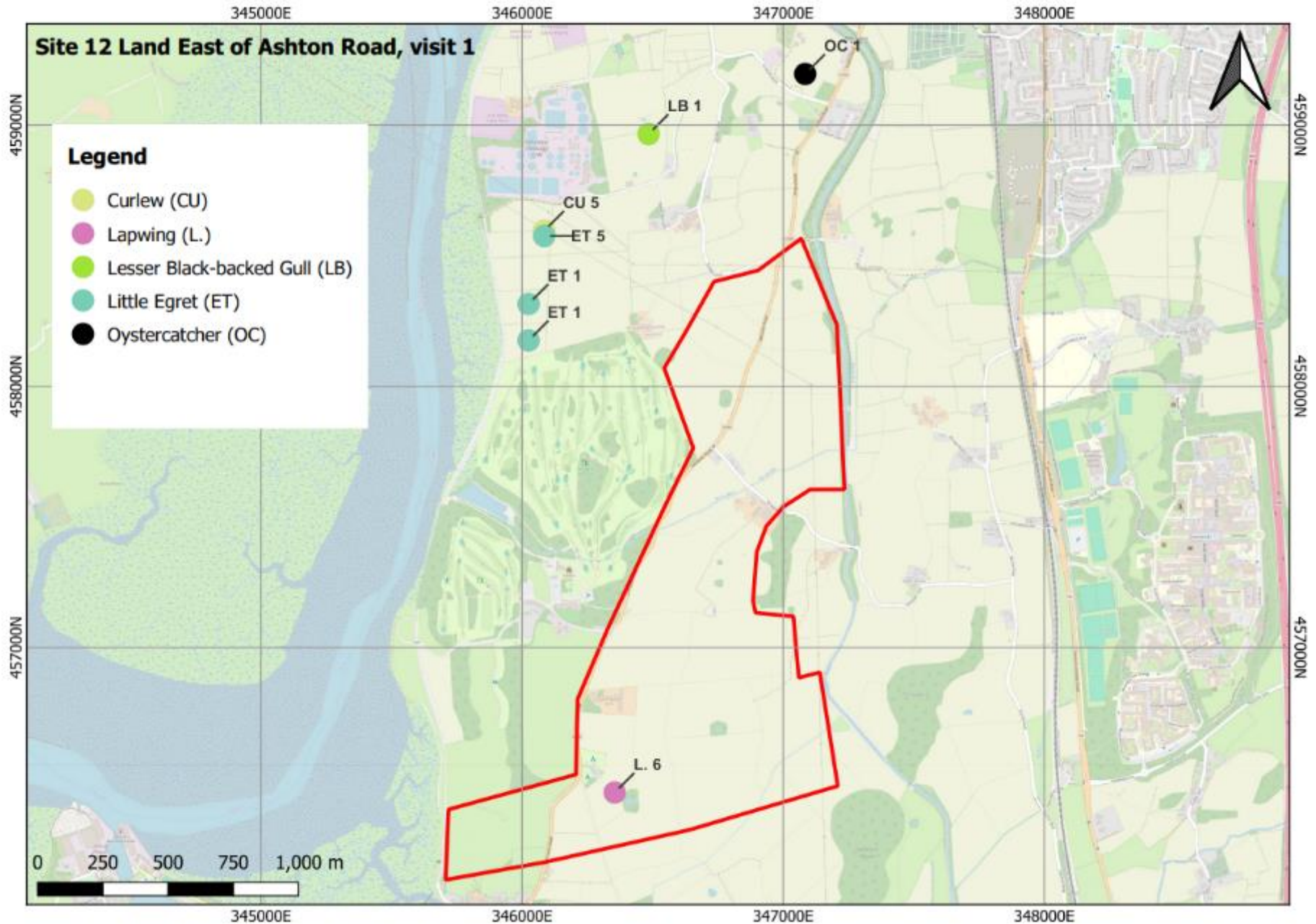
Most notably, during the second survey, 19 Curlews were observed feeding on a field just outside of the site boundary (although part of this field was within the site). There were also 23 Black-headed gulls and 21 Starlings feeding within the same field alongside the Curlews. Additionally, during the second survey, a flock of 25 Black-headed gulls were feeding on a pasture field and moved off to the north when the surveyor headed towards the field. The southeast corner of the site could not be accessed or viewed during the surveys due to no PROW's or roads nearby.

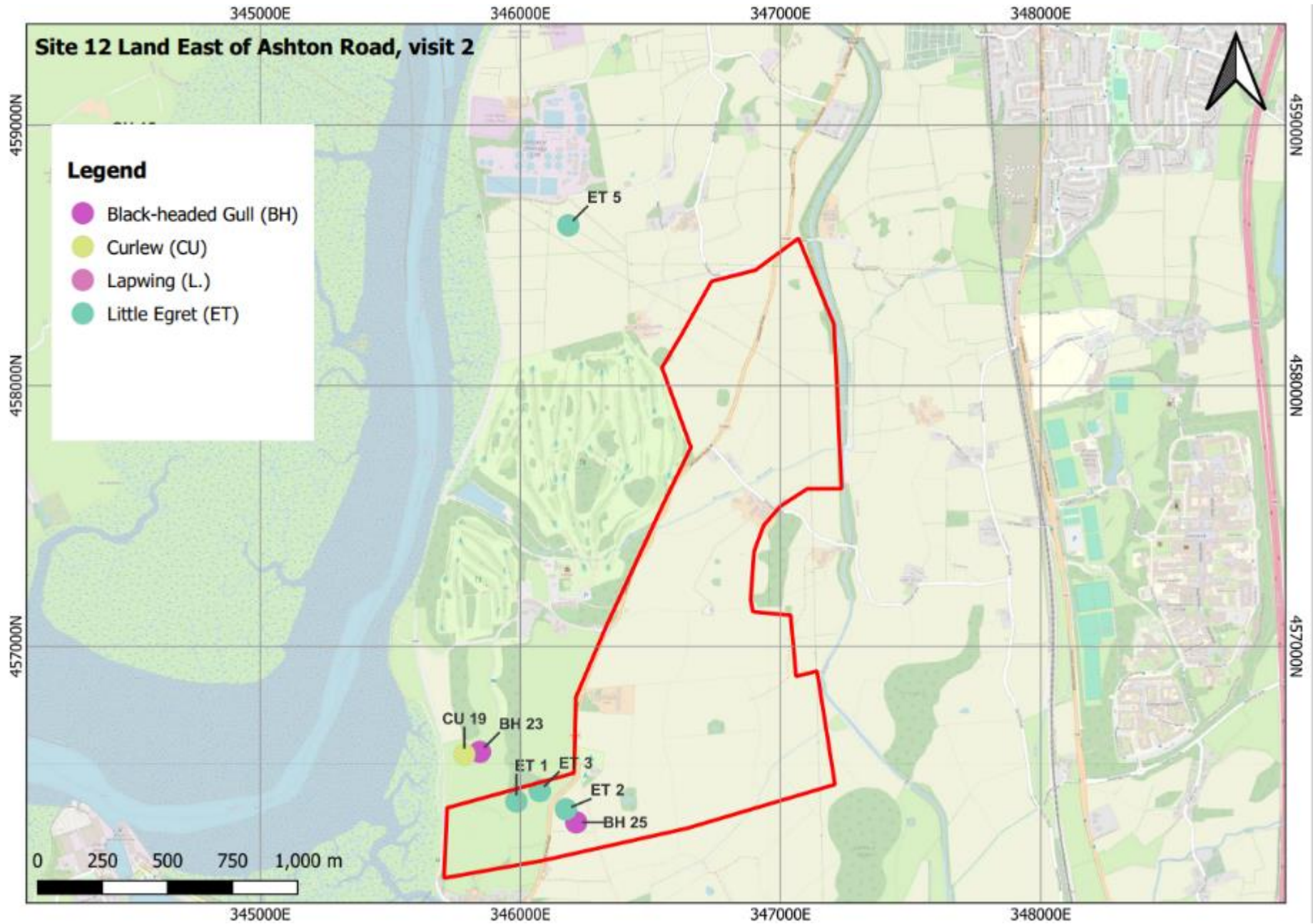
There were gulls flying high overhead (too high to determine the species) during the second survey, plus 24 Starlings flying from the northwest to southeast at the northern tip of the site. Other priority species (S41 NERC Act) present in small numbers were Song Thrush (one individual).

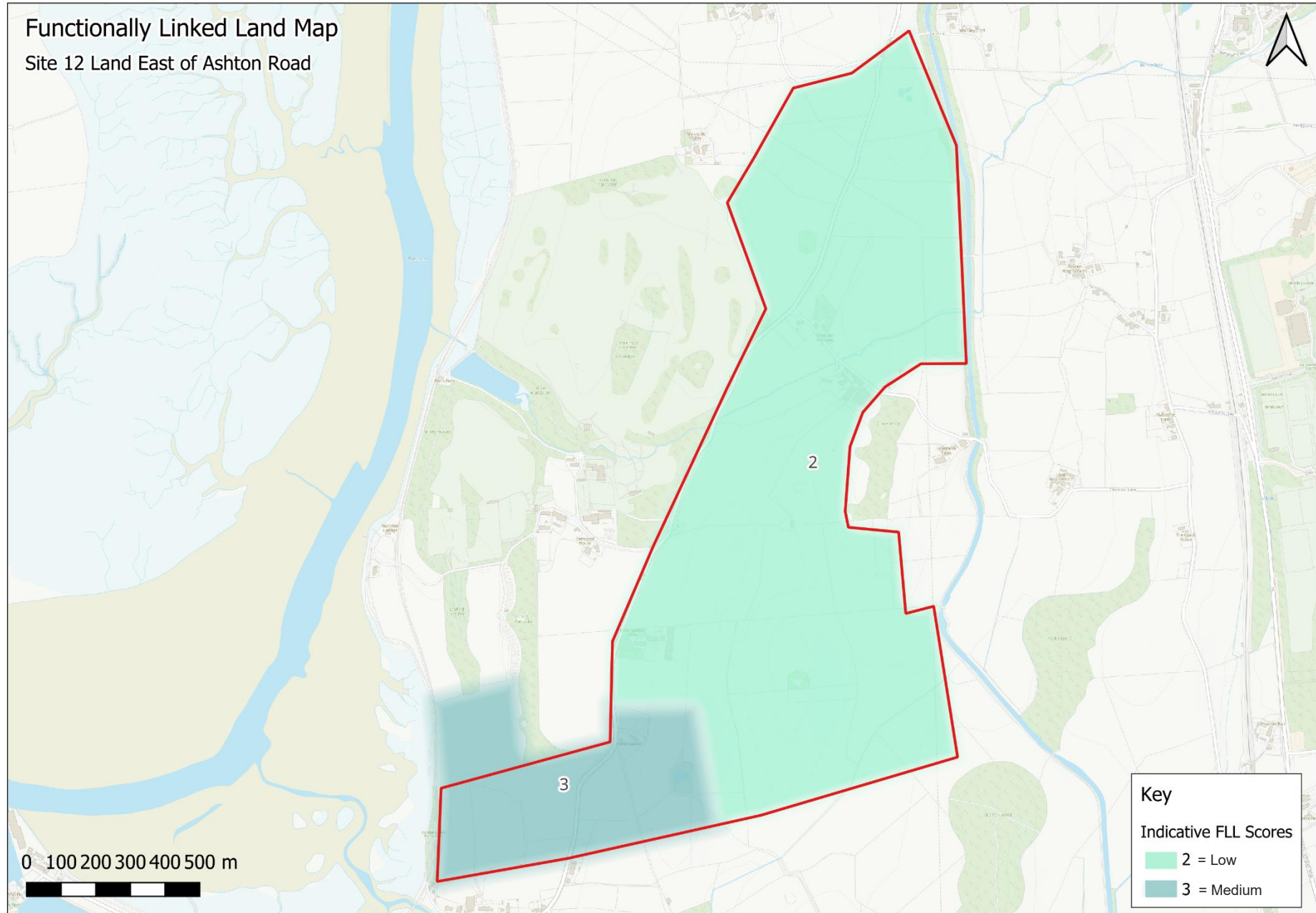
Maps showing the results of the surveys are shown on the following pages.

*Functionally Linked Land Assessment*

Site 12 has been split into two separate compartments, with most of the site scoring 2 (low potential) and the far southwest field (where Curlews were feeding) has scored 3 which is medium potential to support wintering birds associated with Morecambe Bay Ramsar and Morecambe Bay & Duddon Estuary SPA and to act as functionally linked land. See FLL Map for Site 12 below.







#### 4.13 Site 13 - Caton

##### Site and Habitat Description

A small area of semi-natural broad-leaved woodland is present along Bull Beck in the northeast of the site, bordering the Bull Beck picnic site and forming the western boundary of fields to the north of Caton Green Road, which slope downhill to the Lancaster Road (A583). The fields comprise short, improved grassland, some of which were grazed by sheep on the survey day. Two minor streams intersect the fields and are bordered by a few scattered mature hawthorns, a single mature oak and alder. Small patches of juncus are growing in the stream gullies.

A large field of improved grassland, lies to the west of Holme Lane, sloping steeply downhill to the Lancaster Road (A583). Sheep were grazing on the survey day. A line of mature hawthorns and 2 oaks are present at the top of a steep slope, with a small area of marshy grassland at the bottom of the slope dominated by juncus, with abundant willowherb and tufted hair grass.

The fields between Lancaster Road (A583) and Brookhouse Road, to the east of Artle Beck are smaller, divided by low hawthorn hedges, improved grassland and ungrazed on the survey day. Artle Beck is shallow with a stony bed, lined on both sides by mature alders and other trees forming a canopy over the brook. The east bank has collapsed in several places due to erosion.

The fields to the south of Brookhouse Road, east of Artle Beck and Forgelands are relatively large, comprising improved grassland, most grazed by sheep. The field boundaries consist of tree lines including mature alder, ash, hawthorn and oak, and in places low hawthorn hedges.

The fields adjacent to Escowbeck Farm comprise improved grassland, ungrazed on 06/03/2025, with a hedgerow of hawthorn, sycamore and holly bordering Quernmore Road. Further south along the road, some of the improved fields to the east were grazed by sheep divided by low hedgerows on the north and south sides containing elder, hawthorn and sycamore. A treeline along the side of Quernmore Road comprises mature hawthorn, sycamore and holly with young oak. To the west of the road the improved fields contain small plantations of young ash, beech birch and oak. To the south of Gresgarth Lodge, a PRoW runs SE away from the road through a line of mature beech and oaks with ground flora of abundant ramsons. The fields to the south of Forgelands are improved grassland grazed by horses with a line of mature beech lining the east bank of Artle Beck and a low elder hedgerow along the roadside.

Photographs of Site 13 are provided below to give an overview of the types of habitats present.



##### Field Survey Results

Various target/SPA qualifying species were identified during both surveys at Site 13 albeit in relatively low numbers onsite, with higher numbers recorded just offsite to the northeast, likely associated with the River

Lune.

During the first survey, bird activity was considered to be low for the target species. Four Black-headed Gull were recorded towards the northeast compartment of the site and one Curlew was recorded flying in from the north and dropped down into the field onsite. There were 35 Greylag Geese recorded offsite, in a field to the north of the River Lune and an additional 50 were observed flying over the site towards the west.

During the second survey, seven Black-headed Gull were recorded towards the centre of the site, just to the east of Caton. One Curlew was recorded feeding on a pasture field on the western boundary of the site. No other target species were recorded onsite, however good numbers were recorded just to the northeast of the site, associated with the River Lune, this included 64+ Black-tailed Godwit which were roosting on the north bank of the Lune and a few were feeding in the river. A flock of 300+ Black-tailed Godwit were circling low over fields at approximate location SD551661 (offsite). To the northeast of the site, there were also 100+ Oystercatcher feeding in a field to the north of the Lune and various gull species, mostly feeding in the fields. Redshank and Lapwing were also recorded along with 57 Wigeon drifting downstream on the River Lune.

A member of the Lancaster & District Birdwatching Society recorded approximately 1000 Pink-footed Geese on 7<sup>th</sup> March (the day after the second survey at Caton), located around 750m northeast of the site.

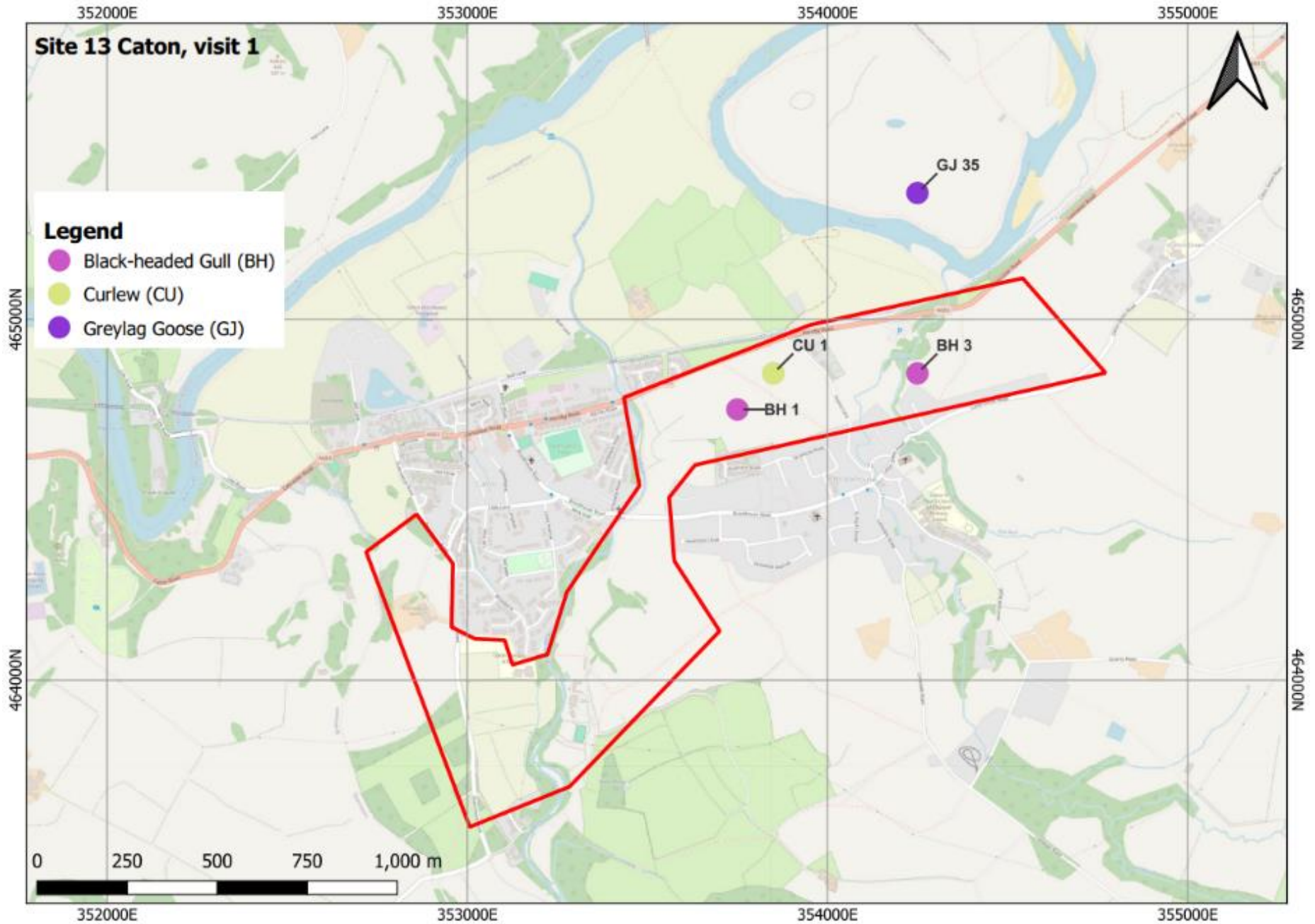
Other priority species (S41 NERC Act) were present including 10 House Sparrow (including one singing male, three in suitable nesting habitat and two in a permanent territory), two Linnet (flying), three Song Thrush (including one singing male) and 12 Starling. Other notable red listed species recorded include two Mistle Thrush (including one singing male). Additionally, one Dipper was recorded during the first survey foraging in a brook (at approximate location SD53396438) and another was recorded in suitable nesting habitat during the second survey (at approximate location SD53166359).

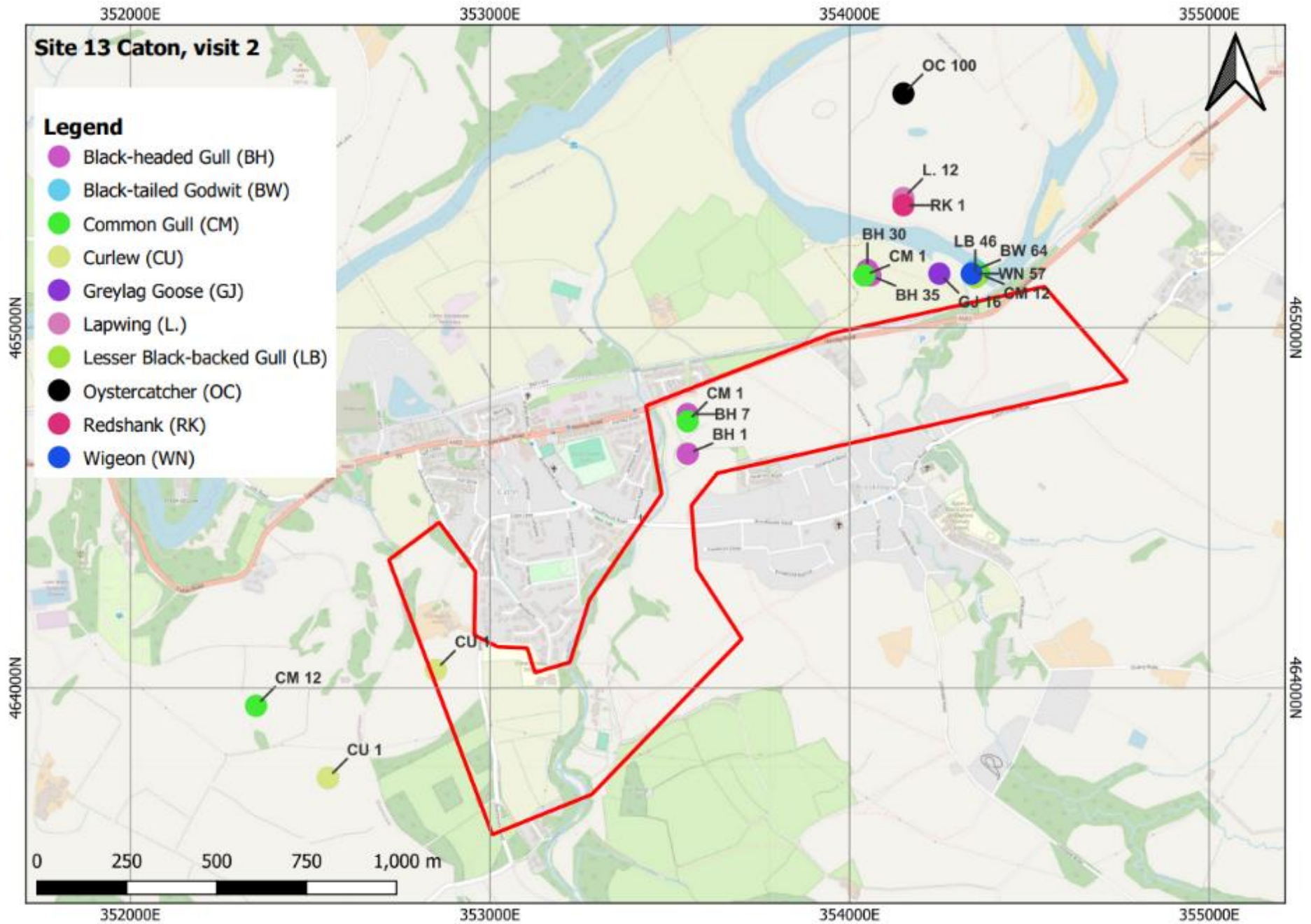
Adhoc counts indicate that the Lune Valley flood plain is of high importance for waders although the WeBS data do not appear to reflect this. There are two WeBS sectors covering the river at Caton, Halton (Crook of Lune) to Caton, and Caton to Hornby and Wenning Foot (The Snab). Between winters 2019/20 and 2022/23, no Black-tailed Godwit were recorded during WeBS counts on either sector. However, 1350 birds were observed at the The Snab, at Aughton on 28/03/2021 (White et al 2022) and 300+ were recorded to the NE of the Caton site, circling low over fields at approximate location SD551661, on 06/03/2025. These counts equate to 56% and 12.4% respectively of the Morecambe Bay and Duddon Estuary SPA wintering population (SPA citation). Numerous PROWs criss-cross the area, so recreational disturbance is a potential issue which may require consideration.

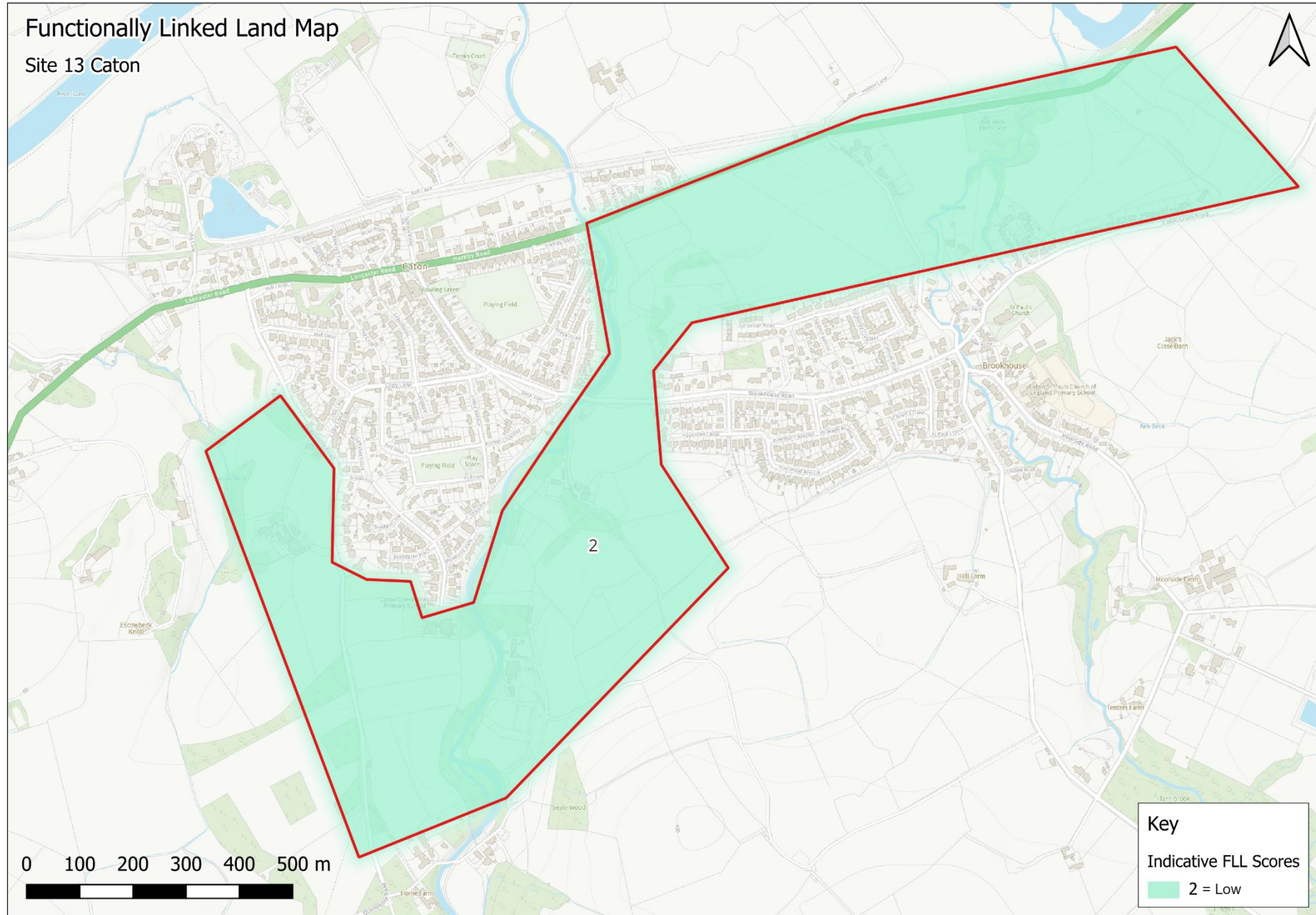
Maps showing the results of the surveys are shown on the following pages.

#### Functionally Linked Land Assessment

Site 13 (whole site) has been assessed as score 2 which is low potential to support wintering birds associated with Morecambe Bay Ramsar and Morecambe Bay & Duddon Estuary SPA and to act as functionally linked land. See FLL Map for Site 13 below.







#### 4.14 Summary of Assessment of Functionally Linked Land

The results from the wintering bird surveys were assessed against the SPA and Ramsar citations, along with criteria for Functionally Linked Land (FLL). Table 2 shows the indicative suitability of each site to act as FLL.

**Table 2 – Final Results for Functionally Linked Land Assessment per Site**

Site Number	Site Name	Potential for the Site to act as Functionally Linked Land	
		Score	Suitability
1	South Carnforth	2	Low
2	Crag Bank, Carnforth	3-5	Medium to Very High
3	Over Kellet	2	Low
4	Bolton Le Sands	2 & 3	Low and Medium
5	Slyne	3 & 4	Medium and High
6	Torrisholme	2	Low
7	Middleton	2-4	Low to High
8	Overton	3	Medium
9	Aldcliffe	2 & 4	Low and High
10	Land West of Ashton Road	2 & 3	Low and Medium
11	South Lancaster	2	Low
12	Land to east of Ashton Road	2 & 3	Low and Medium
13	Caton	2	Low

## 5 Overall Summary and Discussion

The surveys carried out between November 2024 and March 2025 have gathered additional wintering bird data across the Lancaster district (alongside the 2017-2018 and 2020-2021 data). The results of the surveys suggest that various sites are considered to be of at least ‘medium’ potential to support wintering birds associated with Morecambe Bay Ramsar and Morecambe Bay & Duddon Estuary SPA and to act as Functionally Linked Land (FLL), with the exception of Sites 1, 3, 6, 11 and 13 being of ‘low’ potential (as shown in Table 2). Part of Site 5 (Slyne), parts of Site 7 (Middleton) and parts of Site 9 (Aldcliffe) were assessed as having ‘high’ potential and parts of Site 2 (Crag Bank) were assessed as having ‘very high’ potential. It should be noted that although some sites are considered to be of ‘low’ potential, they still have ecological value and provide suitable habitats for target species.

The Eurasian Curlew is considered the UK’s highest conservation priority bird species (Brown *et al.*, 2015) due to its adverse global conservation status (Near Threatened) and the importance of the UK population (around 25% of the world’s breeding population) coupled with its decline in the UK (Red-listed BoCC). Out of the 13 sites surveyed, Site 5 Slyne ranked first for its importance for wintering Curlew (minimum of 116 birds recorded in December 2024) and Site 7 Middleton ranked second (minimum of 76 birds recorded in November 2024). These counts represent 0.95% and 0.62% respectively of the Morecambe Bay and Duddon Estuary SPA wintering population (as per the SPA citation) and this is the primary justification for

allocating a FLL score of 4 (High potential) to these two sites, which are used by the birds for feeding even at low tide. In addition, other SPA qualifying species and factors, including proximity to the SPA, also contribute to the high ecological value of the Middleton and Slyne sites.

Site 2 Crag Bank scored 5 (Very High potential) towards the west of the site. Along the western boundary, part of Site 2 is within the Ramsar/SPA and the remainder of the boundary is immediately adjacent and therefore it is considered to be directly linked to the site.

Site 8 Overton and part of Site 12 Land East of Ashton Road are ranked 3 (Medium potential) as they are adjacent to the Lune Estuary, a component of the SPA, and SPA qualifying species could potentially make use of the adjacent fields (within the site boundary) for roosting and feeding, especially over high tides.

We would advise that the findings of these surveys are assessed, along with additional Biological Records, and are used to guide future survey effort and to consider proposed land allocations in the Local Plan.

## 6 REFERENCES

- Assessment of Potentially Functionally Linked Land. Bailrigg Garden Village Lancaster (GMEU 2018)
- Assessment of Potentially Functionally Linked Land – Lancaster South Area Action Plan (GMEU 2021)
- Birds of Conservation Concern 4 (Eaton et al 2015) British Birds 108 (708-746)
- Brown, D. et al 2015. The Eurasian Curlew – a UK conservation priority British Birds 108: 660-668
- Morecambe Bay and Duddon Estuary Special Protection Area (SPA) citation - <https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9020326.pdf>
- Morecambe Bay Ramsar citation - <https://jncc.gov.uk/jncc-assets/RIS/UK11045.pdf>
- Natural Environment and Rural Communities Act 2006 – Section 41 (Species of Principal Importance in England)
- WeBS Online Report [River Lune - Halton \(Crook of Lune\) to Caton \(WeBS Data\)](#)
- WeBS Online Report [River Lune - Caton to Hornby & Wenning Foot \(The Snab\) \(WeBS Data\)](#)
- Wildlife and Countryside Act (1981), as amended – Schedule 1 (Bird which are protected by special penalties)
- White, S. J. 2022. Lancashire Bird Report 2021. Lancashire & Cheshire Fauna Society publication no. 133: 46-47
- Wintering Bird Surveys of Sites in Lancaster Under Consideration for Potential Future Development (GMEU 2017)

**APPENDIX A – RAW DATA TABLES PER SITE (IN SEPARATE DOCUMENT)**

## APPENDIX B – FLL INDICATIVE SITE SCORING CRITERIA

Score	Description	Factors influencing overall site score
1	<b>Very low</b> potential to act as Functionally Linked Land	<p><b>PRIMARY CRITERIA</b></p> <ul style="list-style-type: none"> <li>No existing qualifying bird species records (from available desk-top data)</li> <li>No qualifying bird species recorded during field surveys</li> </ul> <p><b>SECONDARY CRITERIA</b></p> <ul style="list-style-type: none"> <li>Lack of suitable habitats present to support qualifying species</li> <li>Lack of suitable habitats on surrounding land to support qualifying species</li> <li>Land use hostile to qualifying birds</li> <li>Site very likely to be subject to significant disturbance</li> </ul>
2	<b>Low</b> potential to act as Functionally Linked Land	<p><b>PRIMARY CRITERIA</b></p> <ul style="list-style-type: none"> <li>No or few existing qualifying bird species records (from available desk-top data)</li> <li>No or few qualifying bird species recorded during field surveys</li> </ul> <p><b>SECONDARY CRITERIA</b></p> <ul style="list-style-type: none"> <li>Lack of suitable habitats present to support qualifying species</li> <li>Lack of suitable habitats on surrounding land to support qualifying species</li> <li>Land use unfavourable to qualifying birds</li> <li>Site likely to be subject to significant disturbance</li> </ul>
3	<b>Medium</b> potential to act as Functionally Linked Land	<p><b>PRIMARY CRITERIA</b></p> <ul style="list-style-type: none"> <li>Some existing qualifying bird species records (from available desk-top data)</li> <li>Some qualifying bird species recorded during field surveys</li> </ul> <p><b>SECONDARY CRITERIA</b></p> <ul style="list-style-type: none"> <li>Lack of suitable habitats present to support qualifying species</li> <li>Lack of suitable habitats on surrounding land to support qualifying species</li> <li>Land use neutral for qualifying birds</li> <li>Site likely to be subject to some disturbance</li> </ul>

Lancaster Wintering Bird Surveys 2024-2025

Score	Description	Factors influencing overall site score
4	High potential to act as Functionally Linked Land	<p><b>PRIMARY CRITERIA</b></p> <ul style="list-style-type: none"> <li>• Site known to regularly support qualifying bird species (from available desk-top data)</li> <li>• Significant numbers of qualifying bird species recorded during field surveys</li> </ul> <p><b>SECONDARY CRITERIA</b></p> <ul style="list-style-type: none"> <li>• Suitable habitats present to support qualifying species</li> <li>• Surrounding land supports suitable habitats</li> <li>• Land use favourable to qualifying birds</li> <li>• Site unlikely to be subject to significant disturbance</li> </ul>
5	Very high potential to act as Functionally Linked Land	<p><b>PRIMARY CRITERIA</b></p> <ul style="list-style-type: none"> <li>• Site known to regularly support significant qualifying bird populations (from available desk-top data)</li> <li>• Significant numbers of qualifying bird species recorded during field surveys</li> </ul> <p><b>SECONDARY CRITERIA</b></p> <ul style="list-style-type: none"> <li>• Suitable habitats present to support qualifying species</li> <li>• Surrounding land supports suitable habitats</li> <li>• Land use very favourable to qualifying birds</li> <li>• Site very unlikely to be subject to significant disturbance</li> </ul>

**APPENDIX C - FIELD NOTES TO SHOW AREAS NOT ACCESSED (IN SEPARATE DOCUMENT)**