



**Riverside Chalet Park, Occupation Lane, Singleton,
Poulton-Le-Fylde, FY6 7RA**

Habitats Regulations: Appropriate Assessment

Simply Ecology Limited

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For

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Control Sheet

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1.0 INTRODUCTION

- 1.1.1 This document provides an appropriate assessment of any likely significant effect upon the nature conservation value of Morecambe Bay and Duddon Estuary Special Protection Area, the Morecambe Bay Special Area of Conservation and Wyre Estuary Site of Special Scientific Interest arising from a proposed change of use of land at Riverside Chalet Park, Occupation Lane, Singleton, Poulton-Le-Fylde, FY6 7RA (see Plan 1), to include redevelopment of the chalet park, including removal of existing chalets, siting of 35 new static caravan bases, the reconfiguration of the internal access road and provision of new parking spaces (see Plan 2 and Plan 3).



Plan 1: Aerial view of the Proposed development site.

- 1.1.2 The northern boundary of the proposed development site is adjacent to the boundaries of Morecambe Bay & Duddon Estuary Special Protection Area (SPA), Morecambe Bay Ramsar Site and the Wyre Estuary Site of Special Scientific Interest (SSSI) (see Plan 4 and Plan 5). As per Natural England letter dated 19 November 2019, this could have potential significant effects on these designated sites and “further information (*is needed*) in order to determine the significance of these impacts and the scope for mitigation”.

Habitats Regulations Assessment (HRA)
 Development of Site at Riverside Chalet Park in relation to
Morecambe Bay and Duddon Estuary SPA, Morecambe Bay SAC and Wyre Estuary SSSI

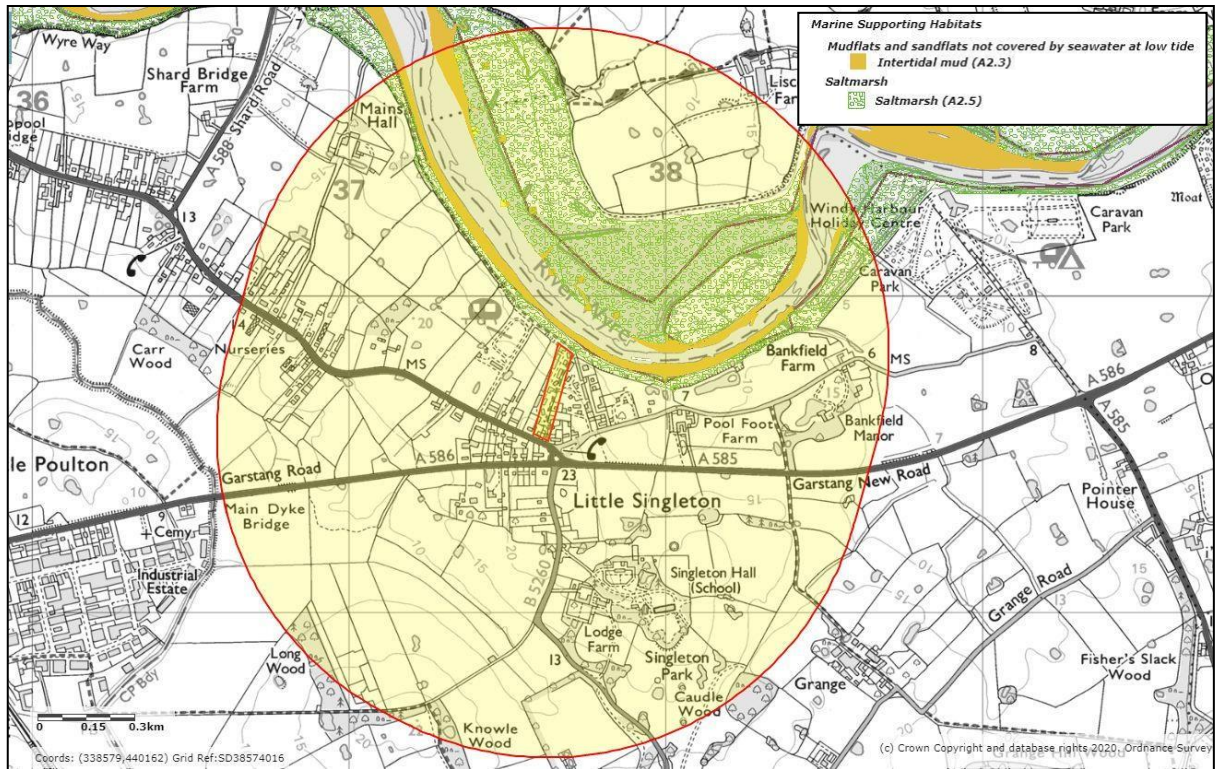


Plan 2: Existing site plan.

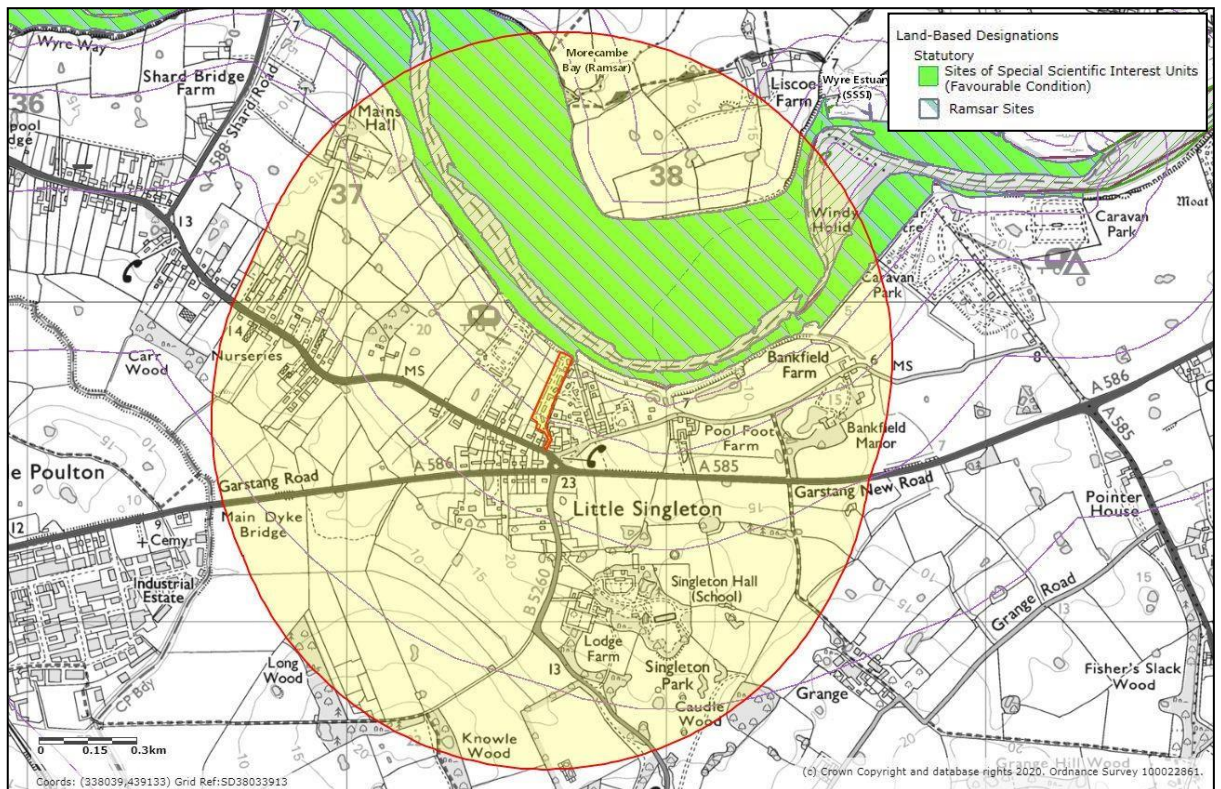


Plan 3: The proposed caravan park.

Habitats Regulations Assessment (HRA)
Development of Site at Riverside Chalet Park in relation to
Morecambe Bay and Duddon Estuary SPA, Morecambe Bay SAC and Wyre Estuary SSSI



Plan 4: Site Location and the limits of Morecambe Bay & Duddon Estuary SPA on the River Wyre.



Plan 5: Site Location and the Wyre Estuary SSSI and Morecambe Bay Ramsar.

2.0 CONTEXT

2.1 Background

2.1.1 **Morecambe Bay and Duddon Estuary SPA** (UK9020326) covers 66899ha and more than 91% of this is Marine. It contains the UK's largest continuous area of intertidal mudflats and sandflats and supports a variety of infaunal communities including cockle beds. Morecambe Bay supports a wide range of habitats including saltmarsh and transitional habitats as well as sand dune systems and coastal lagoons.

- Within the Bay there are areas of skear (i.e. stony reef) which support blue mussel beds and honeycomb worm *Sabellaria alveolata* reefs. Extensive eelgrass beds are present around Foulney Island and in the south Walney Channel, the only examples in the North West of England.
- The Duddon and Ravenglass Estuaries support saltmarsh, intertidal mud and sand communities and sand dune systems with small areas of stony reef. The intermediate coast comprises extensive shingle and sand beaches. The parts of the SPA away from the coast are sandy and shallow, mostly less than 15m deep.

Table 1: Broad Habitat Categories of Morecambe Bay and Duddon Estuary SPA

Habitat class	% Cover
No1 Marine areas, Sea inlets	1.6
No2 Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	90.4
No3 Salt marshes, Salt pastures, Salt steppes	6.2
No4 Coastal sand dunes, Sand beaches, Machair	1.5
No5 Shingle, Sea cliffs, Islets	0.1
Total Habitat Cover	100

2.1.2 **Morecambe Bay SAC** (UK0013027) is a Special Area of Conservation and Ramsar site that covers over 61538km², most of which (99.1%) is marine or sea inlet; dunes, beaches Machair, shingles, sea cliffs and islets make up the remaining 0.9%. The proposed development is not directly connected with or necessary for the management of the SAC and no works will take place within the SAC.

2.2 The Need for Habitats Regulations Assessment

2.2.1 EC Directive (92/43/EEC) on the Conservation of natural habitats and of wild flora and fauna ('Habitats Directive') and EC Directive (2009/147/EC) ('The Birds Directive') are implemented in the UK via 'The Conservation of Habitats and Species Regulations 2017'. This legislation provides the legal framework for the protection of habitats and species of European importance. In this case, Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC.

- 2.2.2 Article 6(3) of The Habitats Directive sets out the decision-making tests for plans and projects likely to affect Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); collectively these sites are referred to as Natura 2000 sites.

Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the sites' conservation objectives.

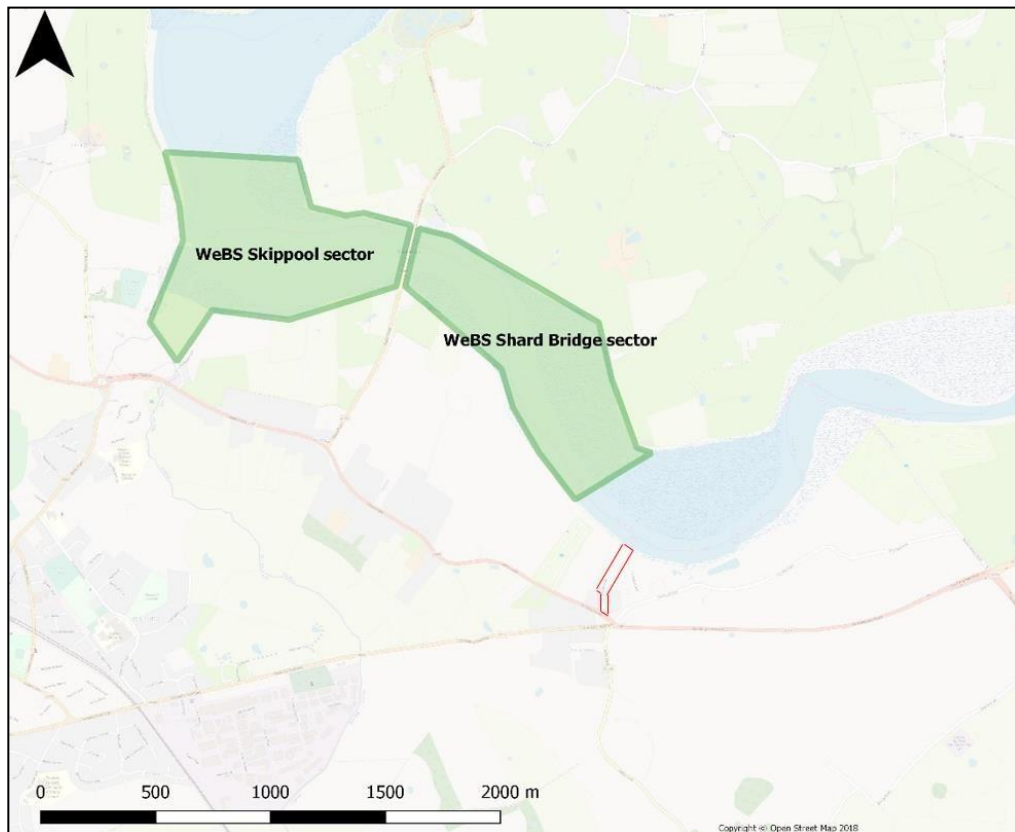
- 2.2.3 This applies to all SACs and SPAs, including candidate SACs and Sites of Community Importance (SCI).
- 2.2.4 The need for the appropriate assessment is underpinned by the precautionary principle, especially in the assessment of potential impacts and is constantly updated by case law. If it is not possible to rule out the risk of harm (additional mitigation or compensatory measures cannot be taken into account at this stage), then on the evidence available then it is assumed that a risk may exist and it needs to be dealt with by an appropriate assessment. However, if it is possible to revise the proposal so that changes can be implemented which maintain a level of risk below the 'likely significant effect' threshold then the plan or project may not need to be subject to an 'appropriate assessment'.
- 2.2.5 The proposed development of the site could have negative effects on the designated sites' features if carried out in the wrong way, for the wrong duration or at the wrong time of year. The spatial scale, location, timing and nature of these actions are critical in relation to the sensitivity, exposure and vulnerability of the nature conservation features present within the designated sites.
- 2.2.6 **The Wyre Estuary SSSI** (1482HA) forms 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 River Wyre is of national importance for wintering and passage black-tailed godwit, wintering turnstone and teal especially in times of hard weather. The Wyre Estuary supports the largest area of ungrazed saltmarsh in North West England.

2.3 The Project Description

- 2.3.1 The site is a 1.2HA parcel of land with 35 residential chalets and gardens. The proposed development is land is for the removal of the existing properties and replacement with 35 static caravan bases, the reconfiguration of the internal access road and provision of new parking spaces.
- 2.3.2 The site of the proposed development is not directly connected with or necessary for the management of the SPA or its birds. The northern boundary of the site is adjacent to a boundary of the designated sites that include the Morecambe Bay and Duddon Estuary SPA.

3.0 ASSESSMENT METHODOLOGY

- 3.1.1 Jason Reynolds MSc MCIEEM undertook the Habitats Regulations Assessment. This assessment is underpinned by the precautionary principle in relation to any potential impacts upon the SAC and SPA, in particular the Conservation Objectives (CO) of the SAC and SPA sites. The CO are the parameters against which it is possible to judge any likely significant effects. Additionally, the potential risks to the special features of the SSSI and its management are considered.
- 3.1.2 To enable this assessment, all relevant Information on the location of bird records from land within 2KM of the site was purchased from the Fylde Bird Club – this data included that obtained for the Wetland Bird Survey (WeBS). Particular attention was paid to filtering the records, so that all species for which the SPA is classified were subject to analysis. The data was then digitized and mapped using QGIS.
- 3.1.3 The Wetland Bird Survey (WeBS) gathers data for an ongoing study and is jointly funded by the British Trust for Ornithology, Royal Society for the Protection of Birds and Joint Nature Conservation Committee.
- 3.1.4 The WeBS covers the Wyre Estuary as part of the Morecambe Bay survey; the closest over-winter bird counts that take place in the immediate area are at Shard Bridge and Skippool Pool (see Plan 6).
- 3.1.5 Additionally, searches were made through other sources of local knowledge, such as <https://fleetwoodbirder.blogspot.com>, for any relevant information about the proposed site and bird counts in the local area. No reference to the proposed development site or the local area was found on these sites.
- 3.1.6 Data regarding the internationally designated sites was obtained from the Multi Agency Geographic Information for the Countryside (MAGIC) website (www.magic.gov.uk); JNCC UK Protected Sites website (<http://jncc.defra.gov.uk/page-4>), and the Conservation Objectives for Morecambe Bay & Duddon Estuary SPA were obtained from Natural England at: <http://publications.naturalengland.org.uk/publication/6242841537806336>.



Plan 6: WeBS sectors in relation to Proposed Development Site

3.2 The Designated Site Conservation Objectives

3.2.1 The Conservation Objectives for the SAC and SPA are as follows:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of qualifying natural habitats and habitats of qualifying species
- The structure and function (including typical species) of qualifying natural habitats
- The structure and function of the habitats of qualifying species
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- The populations of qualifying species, and,
- The distribution of qualifying species within the site.

3.2.2 The European Site Conservation Objectives for Morecambe Bay & Duddon Estuary SPA are available at:

<http://publications.naturalengland.org.uk/publication/6242841537806336>

- 3.2.3 The European Site Conservation Objectives for Morecambe Bay SAC are available at:
<http://publications.naturalengland.org.uk/publication/5314736417669120>
- 3.2.4 Electronic copies of English Nature's 'Views About Management' and 'Operations Likely to Damage the Special Interest' at Wyre Estuary SSSI are available at:
<https://designatedsites.naturalengland.org.uk/PDFsForWeb/VAM/2000199.pdf>
<https://designatedsites.naturalengland.org.uk/PDFsForWeb/Consent/2000199.pdf>
- 3.2.5 We have considered issues such as the spatial scale, location, timing and nature of the proposed development as these factors are critical in relation to the sensitivity, exposure and vulnerability of the bird species present.
- 3.2.6 If it is not possible to conclude that there is no reasonably foreseeable likely adverse effect upon the designated sites based upon our knowledge of the project, then we have assumed that a risk may exist and it needs to be dealt with via an Appropriate Assessment.

3.3 Limitations

- 3.3.1 It is noted that the Fylde Bird Club records were not generated through systematic survey and monitoring, and are likely to have been produced as incidental bird sightings. The locations of the bird sightings are also likely to be recorded in close proximity to roads and public rights of way, where recorders are likely to have access – this may result in an under-recording of birds within less accessible areas. Furthermore, an absence of bird records may be due to a lack of recording within that area rather than an absence of birds.
- 3.3.2 Ideally, records would be provided as Ordnance Survey 6 figures grid references. However, these records only had a 'low level' of precision and were localized only to the level of tetrad coordinates. Rather than discard this data, it was mapped to the 'centre point' of the appropriate tetrad, i.e. a record for the 2km tetrad SD33z was converted to SD 390390. . Whilst this artificially locates the birds to the centre of a tetrad, it helps to illustrate that birds might be in and around a certain area.
- 3.3.3 Despite the above, based upon the number of records obtained, it is clear that birds in the area are well-observed it is considered that the bird data provided gives a good indication of the species and numbers of birds that are likely to be present within the Poulton-le-Fylde area. Therefore, it is concluded that the desk study data and provides sufficient information to enable an assessment of potential impacts from the development to be completed.

4.0 QUALIFYING FEATURES OF INTEREST

4.1 Morecambe Bay and Duddon Estuary Special Protection Area

4.1.1 The Morecambe Bay and Duddon Estuary SPA qualifies under Article 4 of the Birds Directive (2009/147/EC) for the following reasons:

- Species listed in Annex I of the Birds Directive: the site regularly supports more than 1% of the Great Britain populations of three breeding species and six non-breeding species (Table 1). Therefore, the site qualifies for SPA classification in accordance with the UK SPA selection guidelines (stage 1.1: JNCC1999).
- Regularly occurring migrants not listed in Annex I of the Birds Directive: the site regularly supports more than 1% of the biogeographical populations of two breeding species and 14 non-breeding species (Table 1). Therefore, the site qualifies for SPA classification in accordance with the UK SPA selection guidelines (stage 1.2: JNCC1999).
- Assemblages: the site regularly supports an assemblage of more than 20,000 individual breeding seabirds and a separate assemblage of more than 20,000 individual waterbirds. Therefore, the site qualifies for SPA classification in accordance with the UK SPA selection guidelines (stage 1.3: JNCC1999).

Table 2: The site qualifies under Article 4.1 of the Directive (2009/147/EC) as it is used regularly by 1% or more of the Great Britain populations of the following species listed in Annex I in any season.

Species	Season	Count (Period)	% of population
Whooper swan <i>Cygnus Cygnus</i>	Non-breeding 113 individuals	(2009/10 – 2013/14) ¹	1.0% of GB population
Little egret <i>Egretta garzetta</i>	Non-breeding 134 individuals	(2009/10 – 2013/14) ¹	3.0% of GB population
European golden plover <i>Pluvialis apricaria</i>	Non-breeding 1,900 individuals	(Morecambe Bay SPA citation value 1991) ²	1.0% of GB population (1991)
Bar-tailed Godwit <i>Limosa lapponica</i>	Non-breeding 3,046 individuals	(2009/10 – 2013/14) ¹	8.0% of GB population
Ruff <i>Calidris pugnax</i>	Non-breeding 8 individuals	(2009/10– 2013/14) ¹	1.0% of GB population
Mediterranean gull <i>Larus melancephalus</i>	Non-breeding 18 individuals	(2009/10– 2013/14) ¹	1.0% of GB population
Little tern <i>Sternula albifrons</i>	Breeding 84 individuals	(2010 –2014) ³	2.2% of GB population
Sandwich tern <i>Sterna sandvicensis</i>	Breeding 1,608 individuals	(1988- 1992) ⁴	5.7% of GB population (1992)
Common tern <i>Sterna hirundo</i>	Breeding 570 individuals	(Morecambe Bay SPA citation value 1991) ⁵	2.0% of GB population (1991)

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Table 3: The site qualifies under Article 4.2 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the biogeographical populations of the following regularly occurring migratory species (other than those listed in Annex I) in any season

	Season	Count (Period)	% of population
Pink-footed goose <i>Anser brachyrhynchus</i>	Non-breeding 15,648 individuals	(2009/10 – 2013/14) ⁶	4.5% of biogeographic population
Common shelduck <i>Tadorna tadorna</i>	Non-breeding 5,878 individuals	(2009/10 – 2013/14) ¹	2.0% of biogeographic population
Northern Pintail <i>Anas acuta</i>	Non-breeding 2,498 individuals	(2009/10 – 2013/14) ¹	4.2% of biogeographic population
Eurasian oystercatcher <i>Haematopus ostralegus</i>	Non-breeding 55,888 individuals	(2009/10 – 2013/14) ¹	6.8% of biogeographic population
Grey plover <i>Pluvialis squatarola</i>	Non-breeding 2,000 individuals	(Morecambe Bay SPA citation value 1991) ⁷	1.0% of biogeographic population (1991)
Common ringed plover <i>Charadrius hiaticula</i>	Non-breeding 1,049 individuals	(2009/10 – 2013/14) ¹	1.4% of biogeographic population
Eurasian curlew <i>Numenius arquata</i>	Non-breeding 12,209 individuals	(2009/10 – 2013/14) ¹	1.5% of biogeographic population
Black-tailed godwit <i>Limosa limosa</i>	Non-breeding 2,413 individuals	(2009/10 – 2013/14) ¹	4.0% of biogeographic population
Ruddy turnstone <i>Arenaria interpres</i>	Non-breeding 1,359 individuals	(2009/10 – 2013/14) ¹	1.0% of biogeographic population
Red knot <i>Calidris canutus</i>	Non-breeding 32,739 individuals	(2009/10 – 2013/14) ¹	7.3% of biogeographic population
Sanderling <i>Calidris alba</i>	Non-breeding 3,600 individuals	(Morecambe Bay SPA citation value 1991) ⁸	3.0% of biogeographic population (1991)
Dunlin <i>Calidris alpina alpina</i>	Non-breeding 26,982 individuals	(2009/10 – 2013/14) ¹	2.0% of biogeographic population
Common redshank <i>Tringa totanus</i>	Non-breeding 11,133 individuals	(2009/10 – 2013/14) ¹	4.6% of biogeographic population
Lesser black-backed gull <i>Larus fuscus</i>	Non-breeding 9,450 individuals	(2009/10 – 2013/14) ¹	1.7% of biogeographic population
Lesser black-backed gull <i>Larus fuscus graellsii</i>	Breeding 9,720 individuals	(2011-2015) ⁹	2.7% of biogeographic population
European herring gull <i>Larus argentatus argenteus</i>	Breeding 20,000 individuals	(Morecambe Bay SPA citation value 1991) ¹⁰	1.0% of biogeographic population (1991)

¹ Data from Wetland Bird Survey

² Current five year peak mean (2009/10 – 2013/14) = 3,494 (0.9% GB population)

³ Data from RSPB

⁴ Summed data from SMP relating to period of original classification for Morecambe Bay SPA and Estuary SPA (1988 – 1992). Current five year peak mean (2010-2014) = 40 pairs (0.4% GB population).

⁵ Current five year peak mean (2010-2014) = 47 pairs (0.5% GB population).

⁶ Data from Wetland Bird Survey and Icelandic-breeding Goose Census.

⁷ Current five year peak mean (2009/10 – 2013/14) = 1,013 (0.4% biogeographic population).

⁸ Current five-year peak mean (2009/10 – 2013/14) = 849 (0.7% biogeographic population). ⁹

Data from Seabird Monitoring Programme database, RSPB and Cumbria Wildlife Trust

¹⁰ Current five-year peak mean (2011-2015) = 3,192 individuals (0.5% biogeographic population).

¹¹ Mitchell, C. (2014). Status & distribution of Icelandic-breeding geese: results of the 2013 international census. WWT Report, Slimbridge.

4.1.2 Assemblage qualification:

- The site qualifies under Article 4.2 of the Directive (2009/147/EC) as it used regularly by over 20,000 seabirds in any season: At time of the 1997 citation of Morecambe Bay SPA, the area supported 40,672 individual seabirds including: herring gulls, lesser black-backed gulls, sandwich terns, common terns, and little terns.
- The site qualifies under Article 4.2 of the Directive (2009/147/EC) as it used regularly by over 20,000 waterbirds in any season: During the period 2009/10 – 2013/14, the site held a five-year peak mean value of 266,751 individual birds. The main components of the assemblage include all of the qualifying features listed above, as well as an additional 19 species present in numbers exceeding 1% of the GB total and / or exceeding 2,000 individuals: great white egret, Eurasian spoonbill, light-bellied brent goose (Nearctic origin), Eurasian wigeon, Eurasian teal, green-winged teal, mallard, ring-necked duck, common eider (non-breeding), common goldeneye, red-breasted merganser, great cormorant, northern lapwing, little stint, spotted redshank, common greenshank, black-headed gull, common (mew) gull and European herring gull (non-breeding).

4.2 The Morecambe Bay Special Area of Conservation

4.2.1 Morecambe Bay SAC supports the following qualifying Annex I and II features:

Annex I habitats that are a primary reason for selection of this site

1130 Estuaries

Morecambe Bay in north-west England is the confluence of four principal estuaries, the Leven, Kent, Lune and Wyre (the latter lies less than 1000m from the site boundary), together with other smaller examples such as the Keer. Collectively these form the largest single area of continuous inter-tidal mudflats and sandflats in the UK and the best example of muddy sandflats on the west coast. The estuaries are macro-tidal with a spring tidal range of 9 m. The significant tidal prisms of the estuaries result in the Bay being riven by large low-water channel systems. The Kent, Leven and Lune estuaries have been modified variously by railway embankments, flood embankments and training walls but support extensive intertidal areas. Although cobble 'skears' and shingle beaches occur at their mouths, the estuaries consist predominantly of fine sands and muddy sands. The estuaries support dense invertebrate communities, their composition reflecting the salinity and sediment regimes within each estuary. Extensive saltmarshes and glasswort *Salicornia* spp. beds are present in the Lune estuary, contrasting with the fringing saltmarshes and more open intertidal flats of the Leven and Kent estuaries. Most of the salt-marshes are grazed, a characteristic feature of north-west England. In the upper levels of the saltmarshes there are still important transitions from saltmarsh to freshwater and grassland vegetation. Water quality is generally good.

1140 Mudflats and sandflats not covered by seawater at low tide

Morecambe Bay in north-west England is the confluence of four principal estuaries, the Leven, Kent, Lune and Wyre, together with other smaller examples such as the Keer. Collectively these form the largest single area of continuous inter-tidal mudflats and sandflats in the UK and the best example of muddy sandflats on the west coast. At low water, large areas of sandflats are exposed, and these range from the mobile fine sands of the outer Bay to more sheltered sands in the inner areas. With increasing shelter in the Bay's adjoining estuaries, finer sediments settle out and form extensive mudflats, supporting a particularly rich and diverse range of infaunal species.

1160 Large shallow inlets and bays

Morecambe Bay in north-west England is the second-largest embayment in the UK, after the Wash. It is a large, very shallow, predominantly sandy bay bordered on the south by the channel of the Lune estuary and on the north by Walney Channel. At low tide vast areas of intertidal sandflats are exposed, with small areas of mudflat, particularly in the upper reaches of the associated estuaries. The sediments of the bay are mobile and support a range of community types, from those typical of open coasts (mobile, well-sorted fine sands), grading through sheltered sandy sediments to low-salinity sands and muds in the upper reaches. Apart from the areas of intertidal flats and subtidal sandbanks, Morecambe Bay supports exceptionally large beds of mussels *Mytilus edulis* on exposed 'scars' of boulder and cobble, and small areas of **1170 Reefs** with fucoid algal communities. Of particular note is the rich community of sponges and other associated fauna on tide-swept pebbles and cobbles at the southern end of Walney Channel.

1220 Perennial vegetation of stony banks

Morecambe Bay represents Perennial vegetation of stony banks in north-west England. Walney Island on the shores of Morecambe Bay is a barrier island fringed by shingle with a partial sand covering. Two areas of exposed vegetated shingle occur at the extremes of the barrier. The southern area has been highly modified by eutrophication from a large gull colony, resulting in communities that are unusually species-rich for pioneer shingle vegetation. Perennial rye-grass *Lolium perenne*, common chickweed *Stellaria media* and biting stonecrop *Sedum acre* are constant elements, with dove's-foot crane's-bill *Geranium molle* an unusual and important feature.

1310 Salicornia and other annuals colonizing mud and sand

Two types of pioneer saltmarsh are represented at Morecambe Bay in north-west England. Pioneer glasswort *Salicornia* spp. saltmarsh occurs intermittently along the coastline of the bay, forming a transition from the extensive intertidal sand and mudflats to the distinctive salt-meadows at this site. The sea pearlwort *Sagina maritima* community occurs in open pans on the upper marsh.

1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

Morecambe Bay is characteristic of saltmarshes in north-west England, with large areas of closely grazed upper marsh. The mid-upper marsh vegetation is strongly dominated by the saltmarsh-grass/fescue *Puccinellia/Festuca* communities, of which over 1,000 ha occur here, and by smaller areas of saltmarsh rush *Juncus gerardii* community. NVC type SM18 *Juncus maritimus* community is also more strongly represented here than elsewhere in England. The plant species include both southern elements, such as lesser centaury *Centaureum pulchellum*, and northern elements, such as saltmarsh flat-sedge *Blysmus rufus* and few-flowered spike-rush *Eleocharis quinqueflora*.

2120 "Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes")"

Shifting dune vegetation forms a major component of the active sand dune systems at the entrance to Morecambe Bay on Walney Island and the Duddon Estuary at Sandscale Haws. A small area is also present at the entrance to the Wyre. Sandscale Haws supports a mosaic of shifting communities, which form a continuous block around the seaward edge of this site. There are transitions to **2110 Embryonic shifting dunes**. The prograding shingle spits at either end of Walney Island support dune systems at South End and North End Haws. Species associated with these shifting dunes include sea holly *Eryngium maritimum*, sea spurge *Euphorbia paralias*, Portland spurge *Euphorbia portlandica* and sea bindweed *Calystegia soldanella*.

2130 "Fixed coastal dunes with herbaceous vegetation ("grey dunes")" * Priority feature

Sandscale Haws at the entrance to the Duddon Estuary supports the largest area of calcareous fixed dunes in Cumbria, which contrast with the acidic dunes at the adjacent North End Haws on Walney Island. South End Haws on Walney Island supports a smaller area of fixed dunes. North Walney and Sandscale in particular show well-conserved structure and function. The fixed dunes support a rich plant diversity including wild pansy *Viola tricolor*, lady's bedstraw *Galium verum*, common restharrow *Ononis repens* and the uncommon dune fescue *Vulpia membranacea* and dune helleborine *Epipactis dunensis*.

2190 Humid dune slacks

Dune slacks are particularly well-represented at Sandscale Haws, the largest calcareous dune system in Cumbria. The slacks support a good range of vegetation communities and are very species-rich. Several uncommon species including marsh helleborine *Epipactis palustris*, dune helleborine *Epipactis dunensis* and coralroot orchid *Corallorhiza trifida* occur.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

1110 Sandbanks which are slightly covered by sea water all the time

1150 Coastal lagoons * Priority feature

1170 Reefs

2110 Embryonic shifting dunes

2150 Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) * Priority feature

2170 Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*)

Annex II species that are a primary reason for selection of this site

1166 Great crested newt *Triturus cristatus*

The site, located on the southern shore of the Duddon estuary in north-west England, consists of a large sand dune complex containing both permanent and ephemeral waterbodies and man-made scrapes. Breeding colonies of great-created newts are known in approximately 20 of these ponds, and are believed to utilise 200 ha of the 282 ha site, foraging widely over foreshore, yellow dunes, dune-heath and scrub.

4.3 The Wyre Estuary SSSI

4.3.1 Wyre Estuary SSSI is designated under Section 28 of the Wildlife and Countryside Act, 1981 (as amended) for the following reasons:

- Aggregations of non-breeding black-tailed godwit (*Limosa limosa islandica*)
- Aggregations of non-breeding teal (*Anas crecca*)
- Aggregations of non-breeding turnstone (*Arenaria interpres*)
- Presence of following habitats
 - S4 - *Phragmites australis* swamp and reed-beds
 - S21 - *Scirpus maritimus* swamp
 - S28 - *Phalaris arundinacea* tall-herb fen
 - SD2 - *Honkenya peploides* - *Cakile maritima* strandline community
 - SD6 - *Ammophila arenaria* mobile dune community
 - SM6 - *Spartina anglica* saltmarsh SM8 - Annual *Salicornia* saltmarsh
 - SM9 - *Suaeda maritima* saltmarsh
 - SM10 - Transitional low marsh vegetation with *Puccinellia maritima*, annual *Salicornia* species and *Suaeda maritima*
 - SM12 - Rayed *Aster tripolium* on saltmarsh
 - SM13a - *Puccinellia maritima* saltmarsh, *Puccinellia maritima* dominant sub-community
 - SM13B - *Puccinellia maritima* saltmarsh, *Glaux maritima* sub-community

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- SM13C - *Puccinellia maritima* saltmarsh, *Limonium vulgare* - *Armeria maritima* sub-community
- SM13F - *Puccinellia maritima* - *Spartina maritima* sub-community
- SM14 - *Atriplex portulacoides* saltmarsh
- SM15 - *Juncus maritimus* - *Triglochin maritima* saltmarsh
- SM16a - *Festuca rubra* saltmarsh *Puccinellia maritima* sub-community
- SM16b - *Festuca rubra* saltmarsh *Juncus gerardii* sub-community
- SM16c - *Festuca rubra* saltmarsh *Festuca rubra* - *Glaux maritima* sub-community
- SM16d - *Festuca rubra* saltmarsh tall *Festuca rubra* sub-community
- SM18 - *Juncus maritimus* saltmarsh
- SM24 - *Elytrigia atherica* saltmarsh
- SM28 - *Elytrigia repens* saltmarsh
- W23 - *Ulex europaeus* - *Rubus fruticosus* scrub



Plan 7: The Wyre Estuary SSSI covers much of the downstream sections of the River Wyre extends upstream beyond the Chalet Park and over 3km into the Irish Sea.

5.0 THE APPROPRIATE ASSESSMENT

5.1 The Special Protection Area Qualifying Species

- 5.1.1 The important birds for the nearby SPA which could potentially use the site or nearby surrounding land, can be categorised as 'Breeding' and 'Non-breeding' species (see Table 2 and Table 3).
- 5.1.2 It is especially important to note that the site is already developed and has been for many years. No SPA qualifying species will be to be foraging on the site.
- 5.1.3 First and foremost, the possibility of any SPA qualifying breeding species being present in the local area was assessed. Based upon the known distribution of their breeding sites, the location of the proposed development site and the habitat on and around the site, we conclude that the proposed development site has no value for breeding birds. It is concluded that there is no reasonably foreseeable likelihood of any significant effects arising upon any of these breeding species as a result of the proposed development.
- 5.1.4 All of the non-breeding bird count data for SPA Qualifying species supplied by the Fylde bird Club was analysed (see Table 4). Although the data is collected on an ad hoc basis, the number of records shows clearly which species are encountered in greatest numbers locally. Counts where potentially significant numbers of birds are seen in close proximity to the site, and that may therefore be relevant to the site, are identified.

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Table 4: Fylde Bird Club Data (SPA qualifying species only).

Species	No. of records	Mean count	Peak count	Peak count Date	SPA Pop ⁿ	% of SPA Pop ⁿ	Notes	Relevant to site?
Ruff (<i>Calidris pugnax</i>)	140	1.7	7	01/09/05	8	87.5	Passage and winter birds use the fringes of pools, lakes and coastal lagoons. Large number of counts but over 85% of counts are of 1 or 2 birds; last significant counts were in 2017 and 2015. More recent data suggest that Marton Mere and Marshside near Southport are more important sites.	No
Whooper swan (<i>Cygnus cygnus</i>)	161	7.3	58	18/11/05	113	51.33	Passage and winter birds use agricultural land, such as pastures, ploughed fields, stubble etc. that are adjacent to the site or nearby. Count size and number of records indicate that the local area has some relevance for this species.	Yes
Black-tailed godwit (<i>Limosa limosa islandica</i>)	288	35.8	750	12/02/18	2413	31.08	Winter birds use predominantly use coastal sites. Count size and number of records indicate that the local area may have has some limited relevance for this species.	Yes
Golden plover (<i>Pluvialis apricaria</i>)	267	62.8	585	12/02/17	1900	30.79	Passage and winter birds use agricultural land, such as pastures, ploughed fields, stubble etc. that are adjacent to the site or nearby. Count size and number of records indicate that the local area has some relevance for this species.	Yes
Pink-footed goose (<i>Anser brachyrhynchus</i>)	599	373	4000	12/01/91	15648	25.56	Passage and winter birds use agricultural land, such as pastures, ploughed fields, stubble etc. that are adjacent to the site or nearby. Count size and number of records indicate that the local area has some relevance for this species.	Yes
Little egret (<i>Egretta garzetta</i>)	1560	2.6	30	12/09/18	134	22.38	Winter birds use agricultural land, such as pastures, ploughed fields, stubble etc. that are at the site or nearby. Mean count size indicates that the local area has limited relevance for this species.	No

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Common redshank (<i>Tringa tetanus</i>)	1430	32.8	947	12/08/07	11133	8.51	Passage and winter birds use agricultural land, such as pastures, ploughed fields, stubble etc. that are adjacent to the site or nearby. Count size and number of records indicate that the local area has some relevance for this species	Yes
Eurasian curlew (<i>Numenius arquata</i>)	1297	50.4	720	08/01/01	12209	6.00	Winter birds use predominantly use coastal sites. Count size and number of records indicate that the local area may have has some limited relevance for this species	Yes
Dunlin (<i>Calidris alpina alpina</i>)	281	76.2	1200	29/07/07	26982	4.45	Passage and winter birds use predominantly use coastal sites. Flock sizes recorded by the Fylde Bird Club for this species are so small, in relation to the qualifying SPA population, that there is no clear significant use of the site or nearby functionally linked land.	No
Common shelduck (<i>Tadorna tadorna</i>)	916	15.9	255	01/12/05	5878	4.33	Flock sizes recorded by the Fylde Bird Club for this species are small, in relation to the qualifying SPA population, that there is no clear significant use of the site or nearby functionally linked land	No
Common ringed plover (<i>Charadrius hiaticula</i>)	47	4.2	35	31/08/15	1049	3.34	Passage and winter birds use predominantly use coastal sites. Flock sizes recorded by the Fylde Bird Club for this species are so small, in relation to the qualifying SPA population, that there is no clear significant use of the site or nearby functionally linked land.	No
Sanderling (<i>Calidris alba</i>)	20	36.9	120	01/12/05	3600	3.33	Passage and winter birds use predominantly use inter-tidal coastal sites. Flock sizes recorded by the Fylde Bird Club for this species are so small, in relation to the qualifying SPA population, that there is no clear use of the site or nearby functionally linked land.	No
Lesser black-backed gull (<i>Larus fuscus</i>)*	226	15.5	306	01/04/01	9450	3.23	Flock sizes recorded by the Fylde Bird Club for this species are so small, in relation to the qualifying SPA population, that there is no clear significant use of the site or nearby functionally linked land.	No
Bar-tailed godwit (<i>Limosa lapponica</i>)	37	5.6	36	01/07/01	3046	1.18	Flock sizes recorded by the Fylde Bird Club for this species are so small, in relation to the qualifying SPA population, that there is no clear significant use of the site or nearby functionally linked land.	No

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Northern pintail (<i>Anas acuta</i>)	58	3.7	20	24/12/03	2498	0.80	Flock sizes recorded by the Fylde Bird Club for this species are so small, in relation to the qualifying SPA population, that there is no clear significant use of the site or nearby functionally linked land.	No
Red knot (<i>Calidris canutus</i>)	69	40.2	256	07/10/07	32739	0.79	Flock sizes recorded by the Fylde Bird Club for this species are so small, in relation to the qualifying SPA population, that there is no clear significant use of the site or nearby functionally linked land.	No
Common tern (<i>Sterna hirundo</i>) †	8	1.6	3	10/07/11	570	0.53	Flock sizes recorded by the Fylde Bird Club for this species are so small, in relation to the qualifying SPA population, that there is no clear significant use of the site or nearby functionally linked land.	No
European oystercatcher (<i>Haematopus ostralegus</i>)	781	9.6	140	15/04/07	55888	0.25	Peak counts recorded by the Fylde Bird Club for this species are so small, in relation to the qualifying SPA population, that there is no clear significant use of the site or nearby functionally linked land.	No
Grey plover (<i>Pluvialis squatarola</i>)	5	1.6	4	01/09/02	2000	0.20	Peak counts recorded by the Fylde Bird Club for this species are so small, in relation to the qualifying SPA population, that there is no clear significant use of the site or nearby functionally linked land.	No
European herring gull (<i>Larus argentatus argenteus</i>) Ruddy turnstone (<i>Arenaria interpres</i>)							Absence from the Fylde Bird Club record in relation to the overall size of the non-breeding population indicates there is no clear significant use of the site or nearby functionally linked land.	No
Little tern (<i>Sternula albifrons</i>) Sandwich tern (<i>Sterna sandvicensis</i>)							No records. Breeding sites are not nearby within the Bay and feeding sites are at sea.	No

*Fylde Bird Club records do not distinguish between *Larus fuscus* and *Larus fuscus graellsii*

‡ Common tern (*Sterna hirundo*) 570 Breeding individuals

5.1.5 Analysis of data from Fylde Bird Club (see Table 4) highlighted 8 non-breeding, SPA qualifying, species that needed further consideration as to whether they might be affected by the proposed development (see Table 6). These species were:

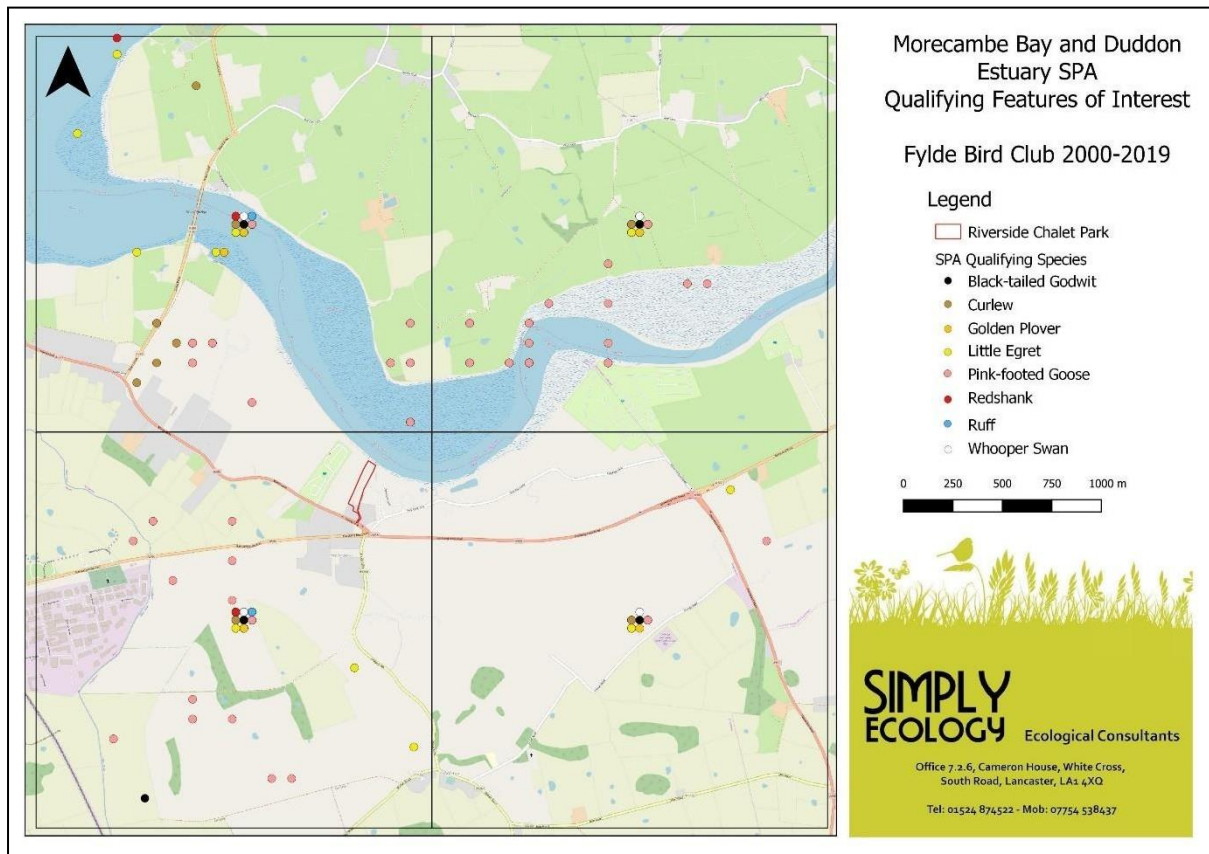
- Ruff (*Calidris pugnax*)
- Whooper swan (*Cygnus cygnus*)
- Black-tailed godwit (*Limosa limosa islandica*)
- Golden plover (*Pluvialis apricaria*)
- Pink-footed goose (*Anser brachyrhynchus*)
- Little egret (*Egretta garzetta*)
- Common redshank (*Tringa tetanus*)
- Eurasian curlew (*Numenius arquata*)

NB. Small numbers of ruff and little egret are present in Morecambe Bay and even low mean counts of sightings make these counts appear potentially 'important'.

5.1.6 With regard to whooper swan, black-tailed godwit, golden plover, pink-footed goose, redshank and curlew, these are all associated with over-winter roosting and feeding both in and outside of the SPA. With the exception of These 6 species can be found using farmland around the SPA as they are species which overwinter on extensive areas of saltmarsh in estuaries, estuarine mudflats and on flat agricultural land (e.g. improved or fertilised grasslands, stubble fields, pastures and newly sown cereal fields) as well as reservoirs, ponds and lagoons. These, therefore, might conceivably be present near the site.

5.1.7 Unfortunately, the majority of records for these 6 key species were only recorded with a very low level of geographical accuracy in the Fylde Bird Club dataset which limits their value. At best the records can only be associated with a 2KM grid square, which places them generally in the local area (see Plan 8). It is possible to conclude with confidence that these birds have been seen in the local area, but little more than that.

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Plan 8: Key SPA Qualifying Species around Riverside Chalet Park (Source: Fylde Bird Club).

- 5.1.8 The Fylde Bird Club data suggests that the local area is significant for 5 key qualifying species. This is particularly true for whooper swans; a maximum count of 58 out of the SPA qualifying population of 113 is a significant percentage (51.33%). However, the low level of precision of the grid references (as outlined in **Limitations** Section 3.3.2) for most of these species make these data of little use for meaningful analysis.
- 5.1.9 Due to the relatively small number of records supplied with 6 figure grid references, the most meaningful analysis that could be undertaken was for pink-footed geese. The records for pink-footed geese returned by The Fylde Bird Club can be seen in Plan 9.
- 5.1.10 As can be seen from Table 4, the local area is clearly important for this species as a maximum count of 4000 out of qualifying population of 15,648 represents a significant percentage (25.56%). The pink-foot data can help to make a meaningful assessment of the potential impacts of the proposed development on this species and the over-arching principles can also be applied equally to whooper swan, golden plover, common redshank and curlew.

Pink-footed Goose

5.1.11 Within the Fylde Bird Club data, there are 599 counts of pink footed geese within 2KM of the Site, with a peak count of 4000. In tetrad SD33U, however, there are only 15 counts, with a peak count of 3000 geese (see Plan 9).

Table 5: Pink-footed goose (*Anser brachyrhynchus*) tetrad counts (Source: Fylde Bird Club data)

Tetrad	No. of records	Mean count	Max count	Date of max count
SD33U	403	315	3100	12/11/2018
SD33Z	8	282	1000	03/02/2018
SD34Q	71	534	2803	09/12/2010
SD34V	117	478	4000	29/12/2009

5.1.12 It is clear from the desk study data, that flock sizes of these birds can reach large numbers within the local area. As shown in Plan 8, Table 4 and Table 5, the peak count was 4000 birds which represents 25% of the population for which the SPA was designated. This is potentially significant. However, it should be noted that large flock sizes are exceptional as a large proportion of the records were of low numbers of birds; the mean flock size is less than 400 (see Table 4 and Figure 1).

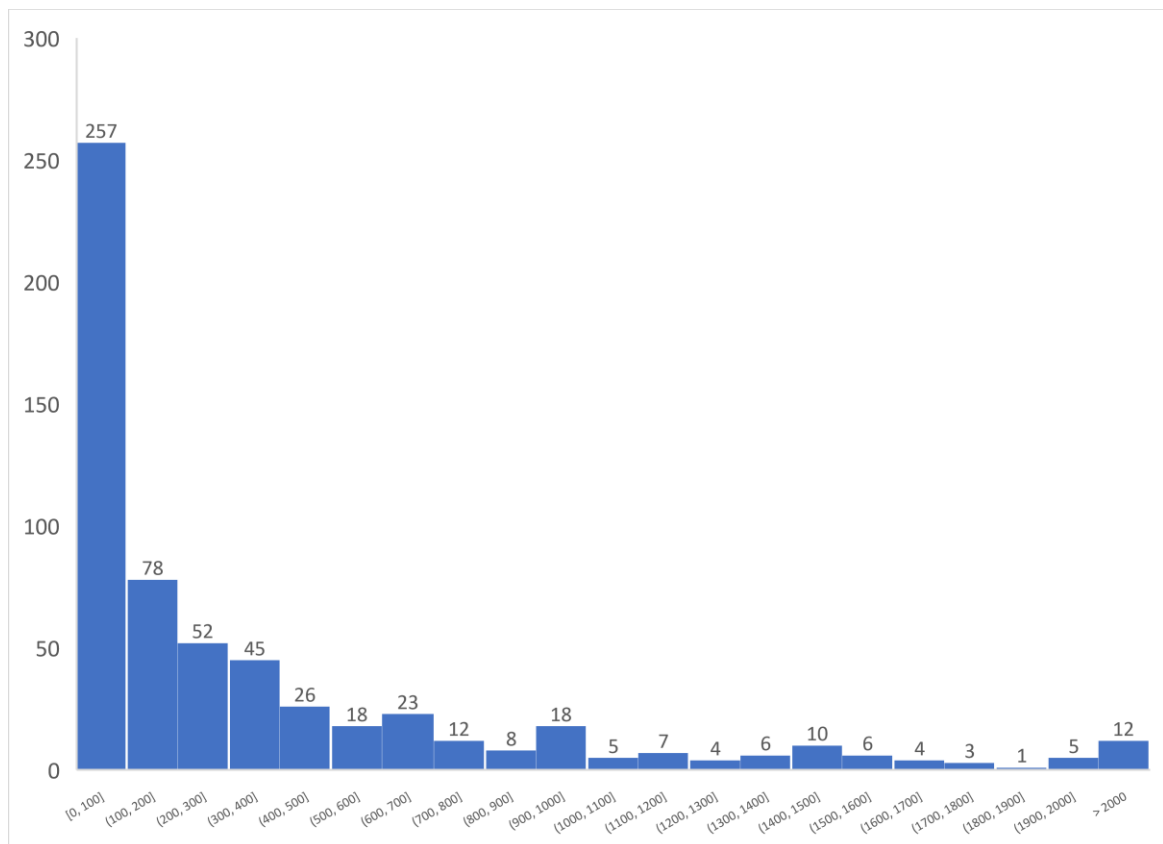
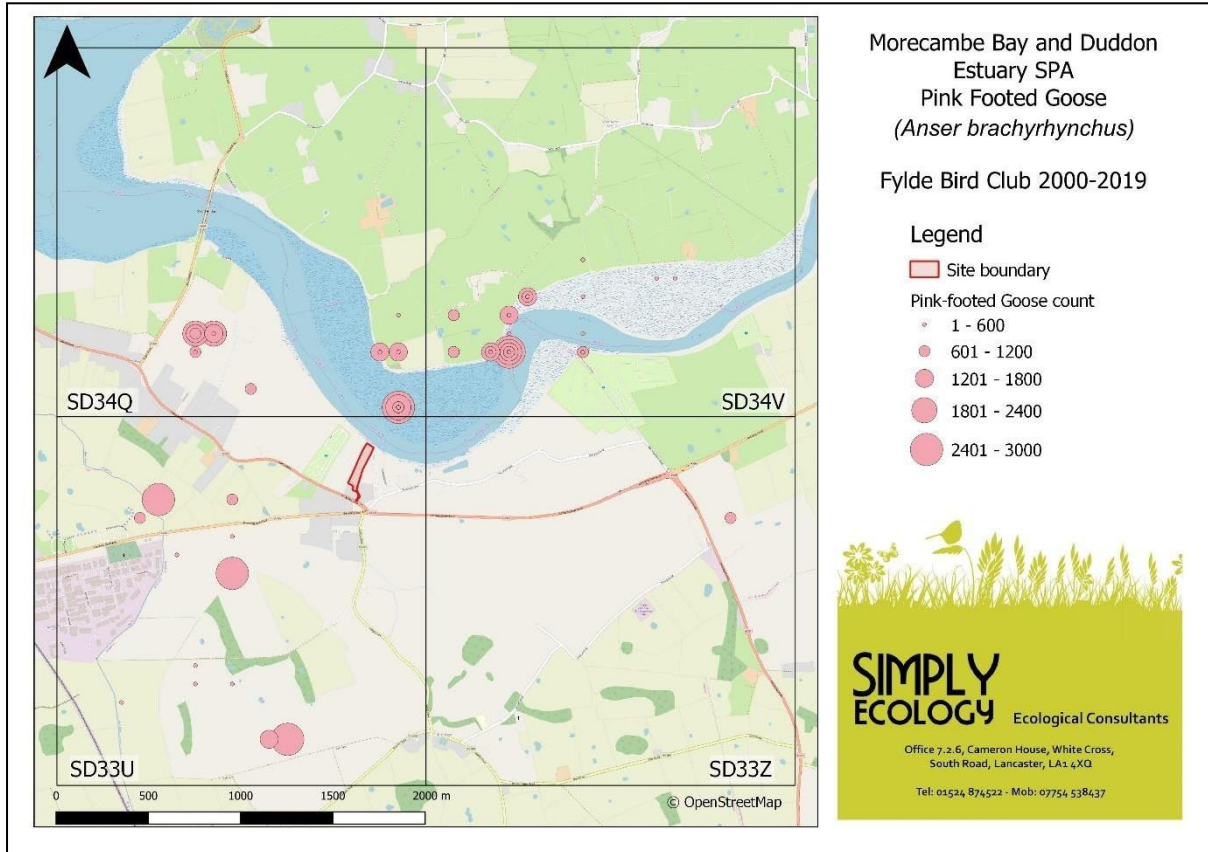


Figure 1: Pink-footed goose counts in local area (Source: Fylde Bird Club).

5.1.13 Of the records, 403 are in tetrad SD33U and of, these only 15 have a 6-figure grid reference. Although there were counts up to 1000 birds, no counts were recorded in fields within 600m of the proposed development to the south of the River Wyre and the largest flocks were recorded in fields over 800m away, beyond the A585 and A586 (see Plan 9).



*Plan 9: Pink-footed goose records near Riverside Chalet Park (Source: Fylde Bird Club).
 Note: Only data with 6 figure grid references shown (see **Limitations** Section 3.3.2)*

5.1.14 The spatial distribution of data records across the local area requires consideration. Many of the records appear to be for flocks at sites associated with the largest fields, which have fewest hedgerows and are furthest from any dwellings (see Plan 9 and 10); in this case, the geese are preferentially utilising fields north of the river with fewer counts south of the river although these too are generally associated with larger fields, with good sightlines, away from human disturbance.



Plan 10: The Site in the context of pink-footed goose distribution and land use in the local area.

- 5.1.15 Also of note, is the fact that Shard Bridge and Skippool Pool are both WeBs count sectors (see Plan 6) and these generate large amounts of data but only with 4-figure grid references and there is a potential for a loss of clarity as a possible artefact of the plotting methodology, arising from the lack of accurate grid references to work from.
- 5.1.16 As a final piece of information in relation to the size of flocks recorded, we note the general upward trend in bird numbers in recent years. Morecambe Bay has been subject to annual monitoring surveys, these show that for the most recent five year data set available (2013/14 – 2017/18), the populations of pink-footed geese have risen to a five year mean of 25,934 (compared to the 15,648 for which it was designated). This reduces the SPA percentage of the maximum of the number of birds present, but clearly there are still important numbers of birds present locally.
- 5.1.17 The potential significance of these data, and possible impact of the proposed development, are discussed in **Post-construction Recreational Disturbance** section in Table 6.

5.2 Potential Hazards to the Special Protection Area

5.2.1 A full consideration of the potential hazards arising from the development of the site and subsequent use by holidaying caravan users and of their likely significance is given in Table 6.

Table 6: Consideration of potential impacts upon Morecambe Bay and Duddon Estuary SPA.

Potential Hazard	Potential Hazard and Mechanism of effect and significance
Direct Habitat Loss or Impacts/Damage within the SPA	<p>The proposed development site lies outside of the SPA and is located to the south of the designated site boundary. There will be no direct habitat loss or damage.</p> <p>Conclusion in relation to Conservation Objectives of the interest feature:</p> <p>Not significant.</p>
Pollution/Hydrology	<p>No construction machinery use will occur in the SPA. Oil and fuel spillage from machinery could be considered to pose potential risks to water quality. Demolition of the existing chalets and siting of new static caravan bases will not need any special equipment or procedures that have a known or uncontrolled pollution risk. Consequently use of standard pollution prevention methodologies will be implemented to control the likelihood of pollutants entering habitats on site and within the surrounding area.</p> <p>In addition, there is no possibility that the proposed development would result in discharges which might change water chemistry in any significant way as the development will be connected to the public sewer system, so no pathway to pollute the SPA presents itself.</p> <p>Conclusion in relation to Conservation Objectives of the interest feature:</p> <p>Not significant.</p>

<p>Direct Habitat Loss or Impacts/Damage to Functionally-linked Land</p>	<p>The desk study data returned by Fylde Bird Club included numerous records of SPA Qualifying Feature species, including whooper swan and pink-footed geese (see Plan 8). None of the records were specifically attributable to the site.</p> <p>The desk study data has no records of these species from within the site and the foraging behaviour of the birds that are Qualifying Features is such that it is judged that the Site would not provide a regular or long-term food source for birds using the SPA due to its current usage and the lack of foraging opportunities. Consequently, the Site is not considered to be functionally-linked land. Works within the Site will not result in a likely significant effect on the SPA.</p> <p>Conclusion in relation to Conservation Objectives of the interest feature:</p> <p>Not significant.</p>
<p>Summary: As there will be no direct impacts upon the SPA or the birds within the SPA or to birds within the development site, the issue therefore becomes one of the likelihood of significant effect on birds foraging within the nearby land. In relation to pink-footed geese and whooper swans, disturbance arising from human activities is the most important factor to assess.</p>	
<p>Disturbance of birds due to Increased levels of activity (physical / acoustic/ visual)</p>	<p>Construction Disturbance</p> <p>The scale of any disturbance which is likely to arise from the machinery necessary to develop the site is predicted to be proportional to:</p> <ol style="list-style-type: none"> 1) the size and nature of the development 2) the presence of birds in the immediate Zone of Influence and 3) the activities in which the birds are engaged. This will vary depending upon a number of factors such as the time of year (breeding season or otherwise), weather, food availability and disturbance elsewhere. <p>Although the Qualifying Species would not be present within the Site, as it is already developed and in constant use, it is clear that flocks of some of these birds, particularly pink-footed goose, can reach significant numbers in the landscape around the Site.</p> <p>As shown in Table 4 and Plan 9, the peak number at a single count recorded in the tetrads near the Site, represent 25% of the total population for which the SPA was designated. However, across the desk study area, there is a range of land use. On the fields where the birds are encountered, there are large open fields and salt marshes. This is particularly true to the north of the Wyre. These areas are preferred by the birds, as there would be less disturbance and their anti-predator sightlines can be maintained as there are few hedgerows. Away from the coastal fields there are smaller, less open fields which tend to have hedgerows. There is also more settlement and developed land, particularly to the west (see Plan 10). For these reasons, the land immediately adjacent to</p>

the development site is unlikely to provide any functionally linked land to the SPA.

When considering the potential for off-site construction disturbance, the critical factor for key species is the time of year when disturbance might arise. It would be ideal to avoid any construction during the autumn and winter as this coincides with the most sensitive over-winter period for the birds present in this part of Morecambe Bay.

In relation to disturbance of any birds using the SPA or nearby functionally linked land, it has been shown in Section 5.0, that important numbers of birds, particularly whooper swan and pink-footed goose, may use land near the site. An understanding of whooper swan and pink-footed goose behaviour and habitat use in relation to possible disturbance is required if we are to understand whether any possible disturbance impacts arising from the proposed development might be significant.

Pink-footed geese are known to preferentially utilise fields of over 6ha and where there are clear sightlines unobstructed by boundary features such as treelines. Further, they tend to avoid grazing within 50m of small roads and 150m of settlements (Larsen and Madsen, 2000). This is borne out from the distribution of data points in Plan 9.

For whooper swans, it is known that crop type is the most significant feature determining field choice, although field size is also important, as is proximity to water. Boundary features or potential sources of disturbance (e.g. farm tracks, buildings) are less significant (Chisholm and Spray 2002).

The Site is already partly screened from potential foraging sites by boundary hedges and existing residential development. These properties also reduce the opportunities for foraging in the immediate surrounds. Given the behaviour of the key species, these factors severely reduce the likelihood that birds will be foraging very close to the development area as the nearest fields for them to alight upon are on the opposite side of the River Wyre.

Additionally, the currently existing chalet park will generate its own activity and noise, all potentially visible to foraging birds within the fields. And has done so for years. As such, there is unlikely to be any new disturbance arising from ew-development of the Site and ongoing use as a chalet park.

Mitigating Disturbance

The human activities most likely to disturb birds are those that cause fast or unpredictable movements, or loud and unexpected noise. In general, any action or combination of actions which are likely to give rise to changes in the regular pattern of bird behaviour, other than of a transient nature, are of concern. (Natural England Reg 33 advice).

The use of machinery to redevelop the site will generate noise; knocking or banging may be associated with the works but there are unlikely to be any rapid movements as the machinery are relatively slow-moving. The Zone of Influence of the proposed scheme is predicted to be localized.

To cover any residual risk of minor over-winter disturbance, temporary acoustic and visual screening along the Eastern boundary of the site would ensure a reasonably foreseeable likelihood of significant effects.

Conclusion in relation to Conservation Objectives of the interest feature:

The overall conclusion for all species is that the works will cause no significant disturbance, reduction in numbers, or displacement of birds.

Disturbance of birds due to increased levels of activity (physical / noise / visual)

Post-construction Recreational Disturbance

Post-construction, it is not considered likely that the new caravan pitches at the site would cause any significant changes in levels of recreational disturbance; the proposals are to replace the current chalets with pitches for static caravans and the numbers of pitches mirror the chalet numbers. Consequently, the number of residents is therefore not anticipated to change significantly.

The key period when the birds will be vulnerable is during the winter season; this can generally be considered the 'off-season' for caravanning as relatively small numbers of caravanning holidays are taken between November and February (see Figure 2), so the potential for disturbance caused by visitors to the proposed caravan site is considered to be *de minimis*.

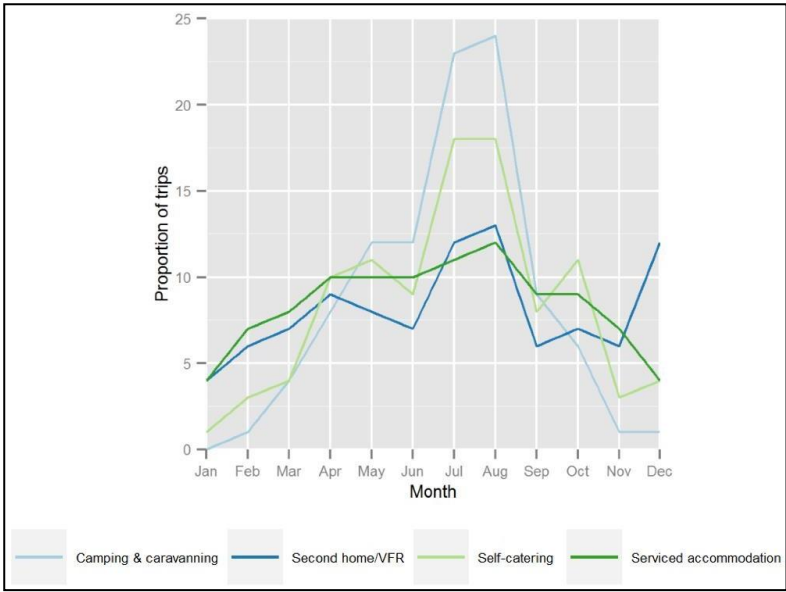


Figure 2: Seasonal trip distribution in UK by accommodation type (from Smith et al 2015).

However, one of the possible sources of disturbance for wildfowl is from walkers and/or dog walkers, especially with dogs off the lead. Geese are susceptible to disturbance caused by dogs within their line of sight, and particularly if dogs are off the lead (Taylor *et al* 2005). This can cause flocks to stop feeding and to temporarily fly off site before returning or could even cause displacement to other sites.

In relation to disturbance of birds within the SPA, research into visitor activities around Morecambe Bay (Liley *et al* 2015) has revealed that visits to Morecambe Bay are popular with dog walkers. We note that the Morecambe Bay and Duddon Estuary SPA is adjacent to the proposed development site and that there is a single recognised footpath on the south site of the River Wyre along the boundary of the SPA (see Figure 3); there is no 'off-season' for dog walking, so the potential for disturbance caused by dogs has to be considered as a possibility.

An analysis of the public footpath network adjacent to the Site and the SPA is therefore important. As can be seen from Figure 2, a single footpaths do pass next to the site.

Comparison of local foraging sites used by pink-footed geese (Figure 1) with the network of public footpaths (Figure 2) suggests that use of the path along the riverbank to the south of the river (see Figure 2) represents a disturbance risk as it is close to some of the preferred feeding sites.

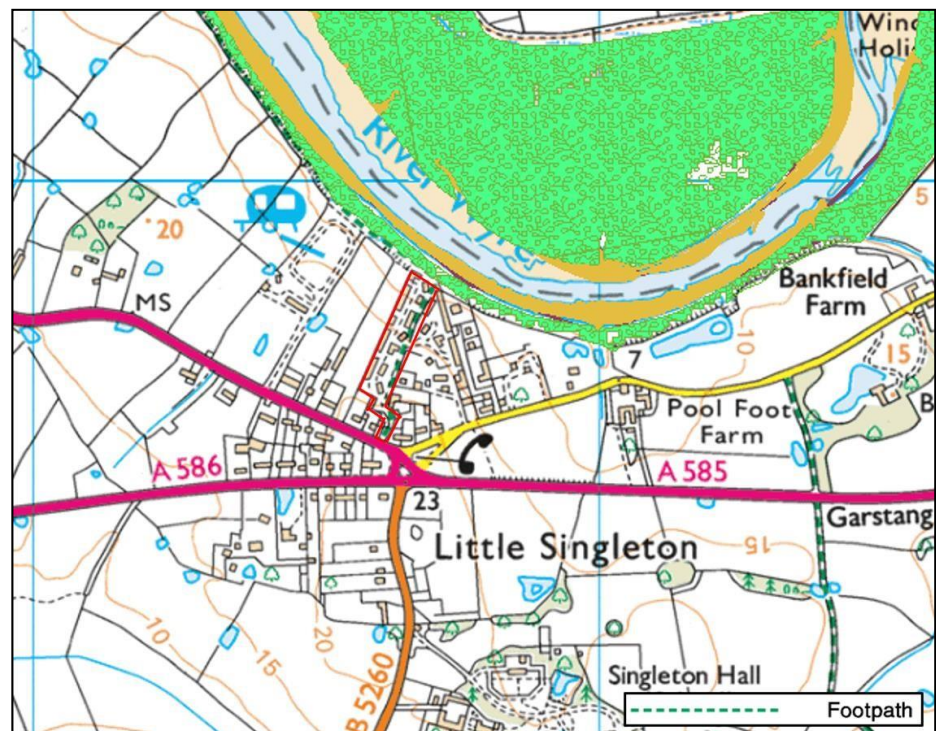


Figure 3: There is a footpath adjacent to the Site and along the south bank of River Wyre.

However, there is little likelihood of increased levels of disturbance by dog walkers during the winter season, as the use of the caravan site is likely to be less busy during this time and a significant increase in numbers of residents at

	<p>other times of the year is not anticipated as the site is already in use. The site already is used as a chalet park, so no significant increases in recreational disturbance will occur as a result of the re-development.</p> <p>It is concluded that there is no reasonably foreseeable likelihood that there will be an increase in uncontrolled dog-walking activity or other potentially disturbing activities arising from the proposed development that would have any significant effect upon the birds of Morecambe Bay and Duddon Estuary SPA.</p> <p>Furthermore, newly published data on disturbance of waders on estuaries close to conurbations founds that “the amount of disturbance was too trivial to have a significant impact on waders” and that and “the presence of large numbers of people in the vicinity of the SPA” do not necessarily imply a significant disturbance risk to waders. The main reasons for this was that temporal and geographical separation often exists between waders and public use of estuarine sites (Goss-Custard <i>et al</i> 2019).</p> <p>Conclusion in relation to Conservation Objectives of the interest feature:</p> <p>The overall conclusion for all species therefore is that post-construction, recreational activities will cause no significant disturbance, reduction in numbers, or displacement of birds.</p>
<p>In combination effects</p>	<p>The zone of influence of this small-scale project has been concluded to be localised, with no reasonably foreseeable effects upon the birds which use the SPA arising.</p> <p>Therefore, in terms of cumulative impacts, an assessment of other nearby projects has been undertaken, as these fall within the same Zone of Influence.</p> <p>In relation to possible cumulative adverse impact arising from other developments upon the SPA, as assessment of the type and scale of development in and around Riverside Chalet Park was completed.</p> <p>The only other large scale development is for the nearby Windy Harbour Bypass. However, the scheme has embedded mitigation which ensure no likely significant effect upon the SPA. As such there will be no in-combination effects arising from this scheme.</p> <p>A search of Fylde Council and Wyre Council planning portals revealed no other significant planning applications within 1KM of the site in the last 5 years. As a result of this information, it is concluded that there will be no ‘in-combination’ likely significant cumulative impacts upon the birds of the Morecambe Bay and Duddon Estuary SPA.</p> <p>Conclusion in relation to Conservation Objectives of the interest feature:</p> <p>Not significant.</p>

5.3 The Morecambe Bay Special Area of Conservation Annex I Habitats

- 5.3.1 The proposed development site is outside the boundary of the Morecambe Bay Special Area of Conservation and there no direct impacts envisaged it.
- 5.3.2 The development site is not within the SAC and there will be no direct land take of the qualifying **Annex I habitats present within the SAC**. Furthermore, because of the small size and nature of the proposed development, it is considered that there is no likelihood of indirect impact to the general site characteristics as a consequence of changes in land use at the development site.
- 5.3.3 As noted above, there are no recognised footpaths or bridleways on the south site of the Wyre. Consequently, it is concluded that there is no reasonably foreseeable likelihood that there will be a significant increase in walkers or associated activities as a result of the proposed caravan park that could have any negative impact on the habitats of the SAC.
- 5.3.4 As a result of the above considerations, it is concluded in accordance with Regulation 63 (1) that there is no likely significant effect upon any of the interest features (**Annex I habitats**) of the SAC. Consequently, there is no further need for appropriate assessment of the implications of the project.

5.4 The Morecambe Bay Special Area of Conservation Annex II Species

- 5.4.1 The SAC also qualifies by virtue of the presence of breeding colonies of great crested newt (*Triturus cristatus*) which are an **Annex II species**. The known breeding populations are on the shore of the Duddon estuary, approximately 50km north west of the proposed development site and there will be no impact on this population.
- 5.4.2 As a result of the above considerations, it is concluded in accordance with Regulation 63 (1) that there is no likely significant effect upon any of the interest features (**Annex II species**) of the SAC. Consequently, there is no further need for appropriate assessment of the implications of the project.

5.5 Wyre Estuary SSSI

- 5.5.1 The proposed site for development lies outside of the Wyre Estuary SSSI and is not considered to be functionally linked to it. However, it does lie within the 1000m Impact Risk Zone for the SSSI.
- 5.5.2 The whole estuarine complex is of international significance for wintering wading birds and of national significance for wintering wildfowl. The River Wyre SSSI identifies three bird species which are particularly noteworthy. These are of national importance for wintering and passage black-tailed godwit, wintering turnstone and teal (especially in times of hard weather).
- 5.5.3 The local winter populations of these species (black-tailed godwit, turnstone and teal) were extracted from the Fylde Bird Club data and information regarding their distributions were obtained from the *State of Lancashire's Birds* (White SJ *et al* 2013).

Table 7: SSSI Key bird species and their prevalence within the Fylde Bird Club Data.

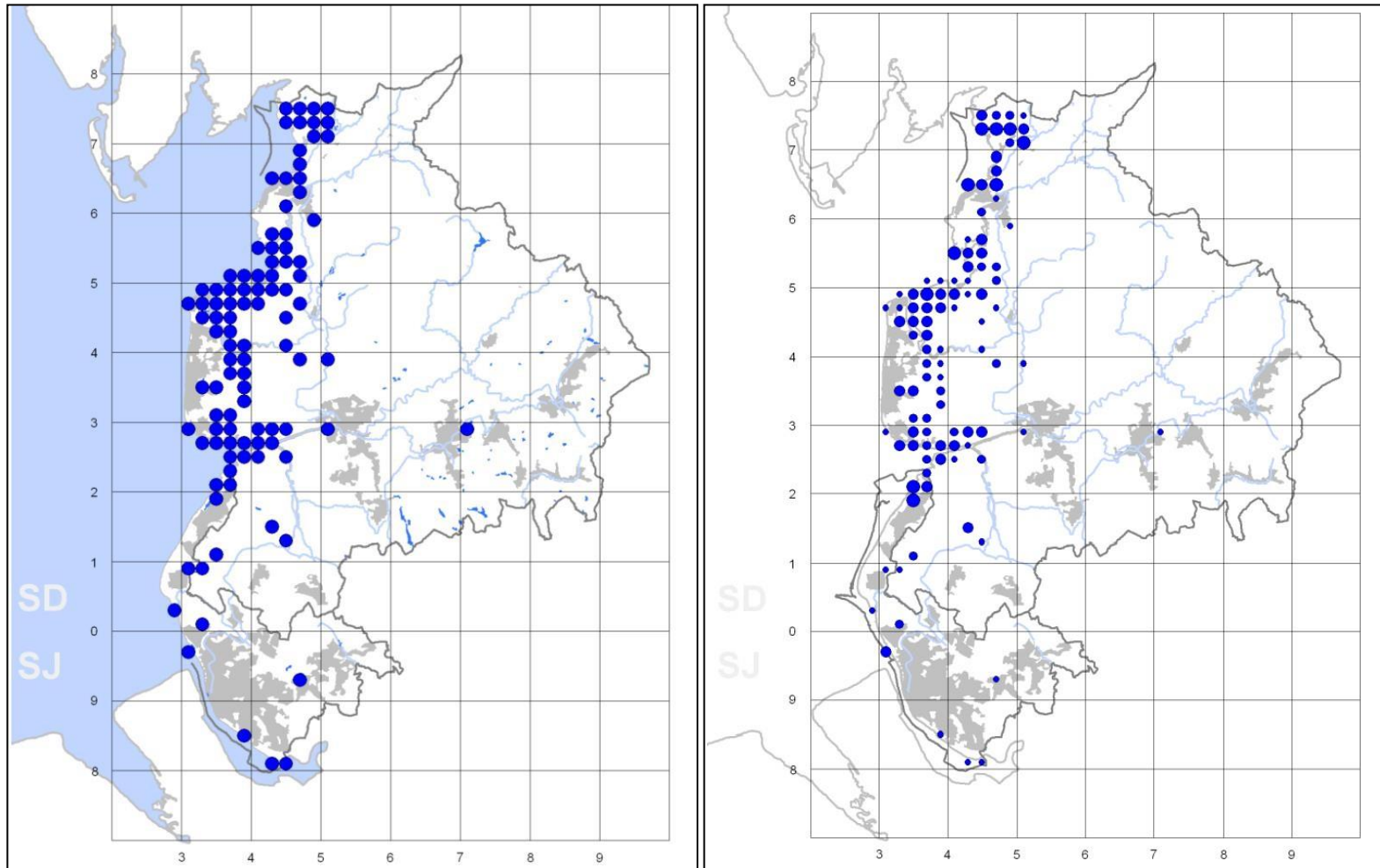
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	No. of records	Mean Count	Peak Count	Date of Peak Count	Tetrad
Black-tailed godwit	289	35.7	750	12/02/2018	SD33U
Teal	x	x	x	x	x
Turnstone	x	x	x	x	x

- 5.5.4 Across the region, few black-tailed godwit are found any distance inland (see Plan 11), except at Marton Mere, 5km to the south west. Generally, their distribution is coastal and are found in across a range of habitats, but favouring coastal salt-marshes and fresh-marshes rather than sand-flats.
- 5.5.5 In Lancashire, the largest numbers of teal occur in three areas; the Ribble Marshes, Martin Mere and the Fylde coast; although, these held internationally important numbers during 2007/08 to 2010/11, these sites are all over 6km away.
- 5.5.6 The largest numbers of turnstone are found in two main areas of Morecambe Bay, at Fleetwood and Rossall Point and between Cockerham and Morecambe, both over 11km to the north with additional clusters over 13km to the south (at Lytham and Hightown and the Mersey Estuary). National and local numbers have declined, with local counts falling by approximately 50% over last 20 years, which may account for the absence from the Fylde Bird Club data.
- 5.5.7 Based upon the information we have regarding the distribution of the three noteworthy species, it is clear that the Site is highly unlikely to be of value to them, or to waders or waterbirds generally. The absence of godwit, turnstone and teal data from tetrad SD43E from the Fylde Bird Club data set reflects this.
- 5.5.8 In summary, the proposed site for development lies outside of the Wyre Estuary SSSI and is not considered to be functionally linked to the SSSI. Nonetheless, the development site is within the 1000m Impact Risk Zone for the SSSI. However, given the small scale and nature of the planned works, the proposals do not meet the threshold¹ that requires further consideration and the potential for impacts on the Wyre Estuary SSSI requires no further consideration.

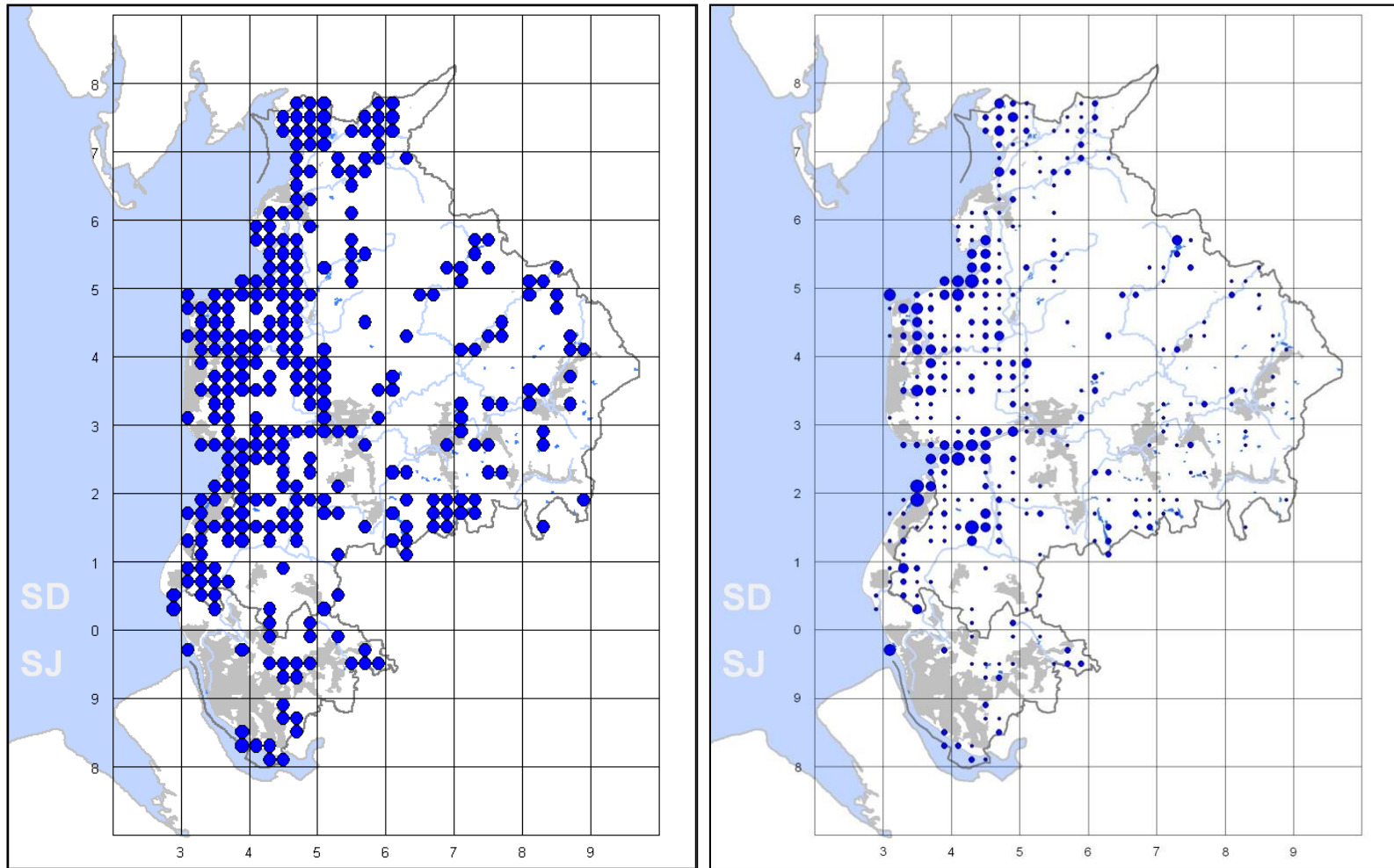
¹ Rural Non-Residential - Large non-residential developments outside existing settlements/urban areas where net additional gross internal floorspace is > 1,000m² or footprint exceeds 0.2ha.

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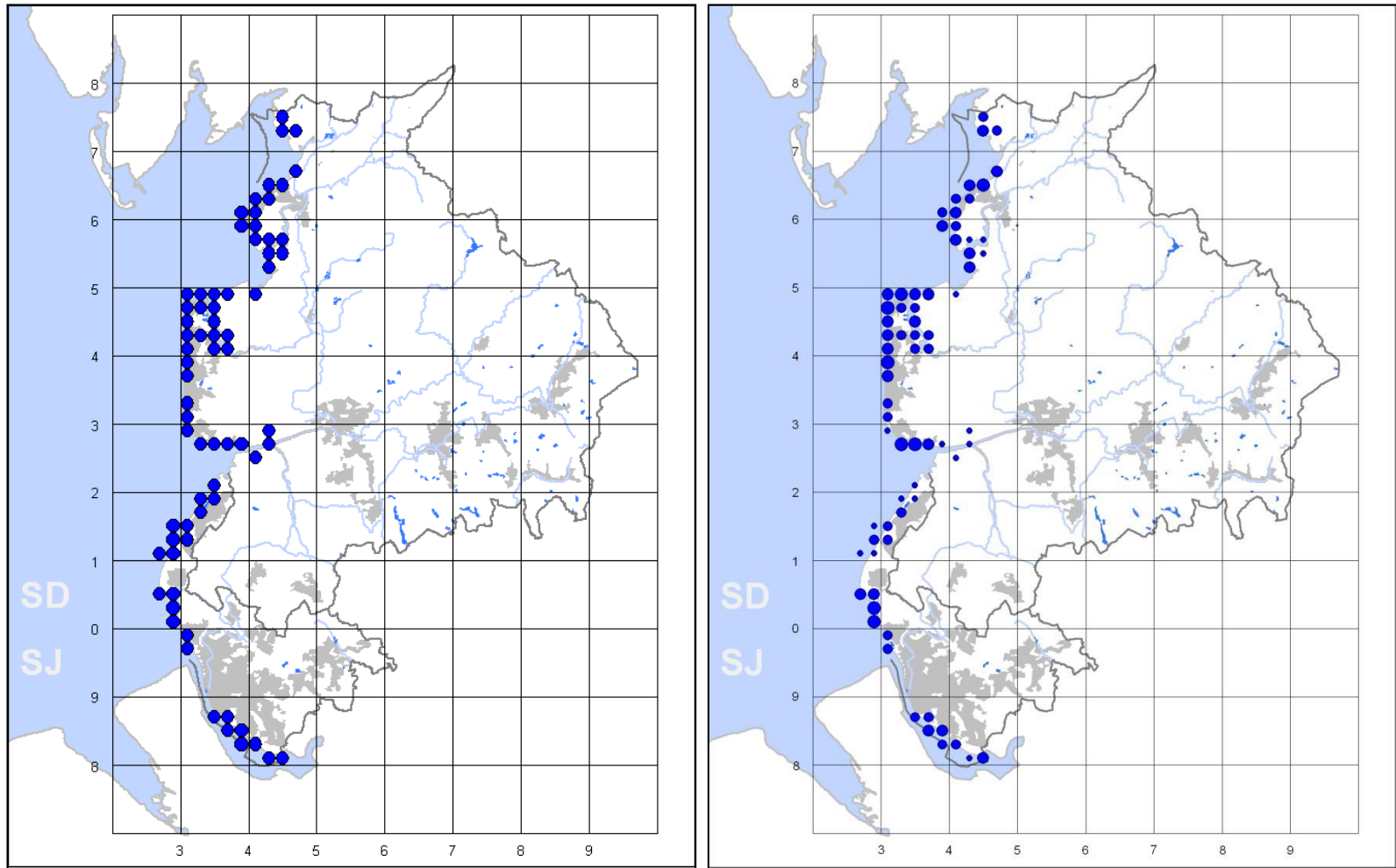
Plan 11: Black-tailed godwit winter distribution and relative abundance 2007/08-2010/11
(from White et al 2013). Relative abundance dot size represents: 1-9; 10-99; 100-469; 470-2050

Habitats Regulations Assessment (HRA)
Development of Site at Riverside Chalet Park in relation to
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Plan 12: Teal winter distribution and relative abundance 2007/08-2010/11
(from White et al 2013). Relative abundance dot size represents: 1-19; 20-199; 200-999; 1000-2099; 2100-5450

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Plan 13: Turnstone winter distribution and relative abundance, 2007/08-2010/11
(from White et al 2013). Relative abundance dot size represents: 1-4; 5-24; 25-99; 100-415

6.0 CONCLUSION

- 6.1.1 In accordance with Regulation 63. (1) (a) of The Conservation of Habitats and Species Regulations 2017, this Assessment concludes that the redevelopment of the chalet park (to including removal of existing chalets, siting of 35 new static caravan bases, the reconfiguration of the internal access road and provision of new parking spaces) will not, either alone or in combination with other plans and projects, have an adverse effect upon the interest features of Morecambe Bay and Duddon Estuary SPA or Morecambe Bay SAC or upon the tests required for the meeting of the favourable condition of the designated sites.
- 6.1.2 This requires one mitigation measure to be implemented at the site by way of a Planning Obligation. Namely, if any demolition or construction works are to be undertaken during autumn or winter, that temporary acoustic and visual screen will be installed along the Eastern boundary of the development throughout the October to March period. This will be secured by way of a Planning Condition.
- 6.1.3 Consequently, there will be no detrimental impact upon Morecambe Bay and Duddon Estuary SPA or Morecambe Bay SAC meeting their Conservation Objectives. The integrity of the European protected sites will be maintained.
- 6.1.4 Therefore, for each of the Conservation Objectives, this Appropriate Assessment concludes that the proposed plan will not adversely affect the integrity of the European site, as per Regulation 63. (5). The proposed development will not prevent the site achieving the Objectives and the integrity of Morecambe Bay and Duddon Estuary SPA or Morecambe Bay SAC will be maintained, and no residual effects are envisaged.
- 6.1.5 With regard to the Wyre Estuary SSSI, it is concluded that the development will have no direct impact on the SSSI and that the parcel of land is not functionally linked to the SSSI and, consequently, there will be no detrimental impact upon the SSSI.

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