

Preliminary Environmental Information Report

Volume III - Appendices

Appendix 15C: Baseline Ornithology Report

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended)







Baseline Ornithology Report Clean Gas Project

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Quality Information

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The methodology adopted and the sources of information used by AECOM in providing its services are outlined in this Report. The work described in this Report was undertaken between September 2017 and August 2018 inclusive and is based on the conditions encountered and the information available during the said period of time. The scope of this Report and the services are accordingly factually limited by these circumstances. AECOM disclaim any undertaking or obligation to advise any person of any change in any matter affecting the Report, which may come or be brought to AECOM's attention after the date of the Report.

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Executive Summary

AECOM was instructed by OGCI Climate Investments (herein referred to as OGCI) to carry out a series of baseline ecological surveys and a Preliminary Ecological Appraisal (PEA) in support of a forthcoming planning application for the construction of a carbon capture enabled gas-fired power station and associated infrastructure (the 'proposed development') north of Redcar in Cleveland. This report presents the methods of baseline data collection and results of the ornithological surveys. Some concluding narrative is given on the generic types of impacts that would be expected to arise from the construction and operation of the proposed development, some avoidance and mitigation strategies to address them, the possible requirements for additional assessments and the potential implications of these for the required Development Consent Order (DCO) application and detailed scheme design process.

Baseline data were gathered by means of a desk study and field surveys to gather historical and contemporary data on the presence of sites designated for their ornithological interest; and the distribution, abundance and habitat use of birds in semi-natural habitats within a minimum of 500m of the proposed development. The methods used were guided by best practice and the outcome of a consultation with Natural England. Data were obtained through:

- Internet searches for statutory designated sites;
- Obtaining third party data from the local biological records centre, including species records and information regarding non-statutory designated sites;
- Obtaining data for relevant count sectors held by the British Trust for Ornithology Wetland Birds Survey;
- Through-the-tide counts and high tide counts of wetland birds; and
- Breeding bird surveys.

Within the Study Area there are three sites designated for their ornithological interest at both international and European levels, all of which are immediately adjacent to the proposed development: Teesmouth and Cleveland Coast Ramsar; Teesmouth and Cleveland Coast Special Protection Area (SPA); and Teesmouth and Cleveland Coast potential SPA (pSPA). They are designated for their populations of water birds during the breeding, wintering and passage seasons. Species for which the sites are designated include breeding and non-breeding terns, waders and assemblages of ducks, waders and cormorants. The pSPA represents a recent proposed extension of the SPA to accommodate marine and estuarine habitats used by foraging little tern (*Sterna albifrons*). The SPA/pSPAs are underpinned by six Site of Special Scientific Interest (SSSI) designations, which were formerly separately designated under national legislation, but which were notified in July 2018 as one overarching SSSI with some extensions to include a number of previously undesignated areas. The SSSI(s) are notified, among other things, for their aggregations and assemblages of non-breeding water birds, which predominantly include waders, ducks and terns.

The third party data and AECOM's surveys confirm the presence within the Survey Area of a number of the species for which the Ramsar and SPA/pSPA are designated. These occur mostly within the coastal habitats of Coatham Sands and the ponds/lagoons within the dune systems that separate Coatham Sands from the key development area of the proposed gas power plant; and other coastal habitats around Bran Sands. The AECOM surveys recorded few occurrences of Ramsar and SPA species inland of the coastal habitats, with the exception of lapwing (*Vanellus vanellus*), shelduck (*Tadorna tadorna*) and teal (*Anas crecca*), which occurred mostly within the open terrestrial habitats and pools immediately to the east of the Teesside Works and proposed gas power plant.

AECOM's surveys recorded a moderately diverse breeding bird assemblage across the terrestrial habitats adjacent to the proposed development areas between the Teesside Works and Coatham Sands, the sand dunes to the north of the Teesside Works and the substations at Saltholme and Lackenby. The species present were typical in the context of the habitats present. Skylark (*Alauda arvensis*) was particularly numerous across the open habitats of the sand dune systems north of the Teesside Works. A roosting barn owl (*Tyto alba*) was recorded occupying a barn owl box within a small building adjacent to the River Fleet. This species was also recorded hunting across some of the open habitats within the survey area. It is possible that this species could breed at this location in future.

The presence of and habitat use by species associated with the designated sites will require further consideration when producing detailed designs for the proposed development and it is proposed that ongoing consultation is maintained with Natural England during the DCO application process.

1. Introduction

1.1 Background

- 1.1.1 AECOM was instructed by OGCI to carry out a series of baseline ecological surveys and a Preliminary Ecological Appraisal (PEA) of the now disused Sahaviriya Steel Industries (SSI) Steel Works Site north of Redcar in Cleveland (referred to herein as 'The SSI Site'¹), areas of associated land (known as the 'Teardrop' and connection corridors see below) and the area around the disused administrative building known as Steel House. The work commissioned includes:
 - Preliminary Ecological Assessment (AECOM, 2018);
 - Otter (*Lutra lutra*) and water vole (*Arvicola amphibius*) surveys and baseline reporting (Quants Environmental Ltd., 2018);
 - Reptile surveys and baseline reporting (Quants Environmental Ltd., 2018);
 - Bat activity surveys, bat roost suitability assessments and baseline reporting (Quants Environmental Ltd., 2018);
 - Terrestrial invertebrate surveys and baseline reporting (Richard Wilson Ecology Ltd., 2018); and
 - Ornithological surveys and baseline reporting (presented in this report).
- 1.1.2 OCGI may plan to redevelop part of the SSI Site for use as a carbon capture enabled gas-fired power station with connections through the surrounding landscape proposed for electrical, gas and CO₂ connections and pipelines (referred to here as Electricity, Gas and Carbon Dioxide (CO₂) Connection Corridors). The CO₂ connection to an offshore storage site may be routed via a booster station, the indicative location of which may be adjacent to the coastal sand dunes and Cleveland Golf Course at approximate National Grid Reference (NGR) NZ5765 2507.
- 1.1.3 The total area surveyed, comprising the SSI Site, Teardrop, the CO₂ Export, Gas and Electricity Connection Corridors and the potential terminations at two electricity substations (Saltholme and Lackenby) will be referred to collectively in this report as the 'Proposed Development Site' (PDS), with reference made to these individual areas as required. It is recognised that the survey area is larger than the project site likely to be required so as to allow further engineering work to be undertaken to refine the site as the project develops. The central NGR for the SSI is NZ5721 1250, the location and redline boundary of which are shown on Figure 1 along with the areas identified as potential routes for connection corridors and the Teardrop.
- 1.1.4 The Proposed Development Site is adjacent to a number of sites designated for ornithological features which are of interest at the international, national, regional and local levels. Regardless of this, wild birds are protected to varying degrees by domestic legislation and policy. Consequently there may be ornithological constraints to the proposed development. A desk study and a series of surveys was commissioned to identify the ornithological baseline within the PDS and the surrounding area, such that the ornithological value of the PDS can be determined and the potential impacts on ornithological features can be assessed for the purposes of an Ecological Impact Assessment (EcIA). The approach applied to the desk study and surveys is in line with Chartered Institute for Ecology and Environmental Management (CIEEM) guidance (CIEEM, 2017) and was agreed during meetings with Natural England.
- 1.1.5 The information presented in this report is based on third party records obtained from internet searches; biological records and designated sites information from Environmental Records Information Centre (ERIC) North East; water bird counts obtained from the British Trust for Ornithology (BTO) Wetland Birds Survey (WeBS) scheme; a series of bird counts carried out by AECOM at regular intervals and coinciding with specific tidal ranges ("intertidal" and "high tide") over a 12-month period within pre-determined count "sectors" across the PDS and it's immediate surroundings; and a series of Common Birds Census (CBC) visits carried out by AECOM across a similar area to establish the distribution and numbers of breeding birds present. Reference is made to the technical reports listed

¹ SSI is an abbreviation of Sahaviriya Steel Industries, the Thai multi-national steel-making company that previously owned the steelworks at Redcar. This should not be confused with an identical abbreviation for biological non-statutory sites (Site of Scientific Interest) which is used by some Councils.

above where it is informative and appropriate to do so, for instance when relating habitats to the recorded occurrence of breeding or non-breeding birds.

- 1.1.6 The design of the proposed development has not been determined in detail, therefore the potential zone of influence of the proposed development has not been established at the time of writing. A precautionary approach has therefore been taken when determining survey areas, which accounts for the distance at which potential impacts on ornithological features could occur, in agreement with Natural England. This takes account of the sensitivity and importance of potential ornithological features and the level of protection that they are afforded by statutory legislation. For much of their length the connection corridors pass directly along or through road, rail and other industrial infrastructure of minimal value for birds. Consequently the surveys targeted only those areas within and adjacent to the proposed development that contain habitats likely to attract significant populations of wild birds and that could be impacted by the proposed development.
- 1.1.7 The purpose of the ornithological surveys was to:
 - 1. Identify the breeding and non-breeding bird assemblages present within the SSI Site, Teardrop and any areas adjacent to them where there may be potential for direct or indirect effects (the 'zone of influence'), on a year-round basis;
 - 2. Identify the temporal and spatial distribution and patterns of habitat use of birds recorded within the zone of influence; and
 - 3. Identify the frequency and extent to which birds associated with designated sites occur within the zone of influence.

Scope of Report

- 1.1.8 This report sets out the ornithological baseline within the zone of influence of the proposed development and attempts to identify any potential functional links² between the proposed development and the adjacent sites designated for their ornithological interest. Any areas of particular sensitivity to development arising from their ornithological interest are identified. High level recommendations are made on potential options for the avoidance, mitigation or compensation of the potential impacts of the proposed development (where known) on the identified ornithological features, and for potential enhancements to biodiversity and ecosystem services. The implications of the ornithological baseline identified herein with respect to the scheme design and planning application process are also discussed
- 1.1.9 The report does not attempt to evaluate the nature conservation value of the bird assemblage(s) identified nor does it provide any form of impact assessment or detailed recommendations for mitigation, compensation or avoidance of potential development-related impacts. The report does not identify any need for or scope of further survey work, as this would need to be determined in consultation with Natural England and in association with the development of a detailed scheme design.

Glossary of Terms Relating to the Areas Surveyed

- 1.1.10 The following terminology is used throughout this report to describe distinct localities, survey areas or sub-divisions of those areas. All Study Areas and Survey Areas described below are summarised on Figures 2 and 3:
 - SSI Site (Figure 1): The main site of the proposed development.
 - **Teardrop (Figure 1):** The Teardrop is an area of the original Redcar steelworks located immediately adjacent to the east of the SSI Site. The former steelworks infrastructure is largely dismantled and removed, leaving behind areas of modified / made ground that have been colonised to varying extents by a variety of semi-natural habitats. Parts of the Teardrop are located within potential Electricity and CO₂ Connection Corridors.

² The term "functional link" in this context refers to an existential linkage between land within the boundary of a designated site or sites and land outside the boundary or boundaries of the site(s). This can occur, for example, where habitat within non-designated land that is separate from designated areas regularly attracts significant numbers of birds that are interest features or reasons for designation of the designated site. Thus, even though the land is not part of the designation, it contributes to the integrity and function of the designated site.

- Steel House (Figure 1): Steel House is the now disused administration building for the Redcar steelworks and is located to the southeast of the SSI and Teardrop Sites, centred on NGR NZ5764 2410.
- Electricity Connection Corridor (Figure 1): The potential route for the electrical connection which would run southeast of the SSI Site and terminate at Lackenby Substation, approximately 4km to the south of the SSI site (NGR NZ5623 1941).
- **Gas Connection Corridor (Figure 1):** The potential route for the gas connection which would run to the southwest of the SSI Site. This section of the Survey Area includes the area up to Saltholme substation 7km to the west of the SSI site (NGR NZ4923 2364).
- **CO₂ Connection Corridor (Figure 1):** The potential route for the CO₂ Connection. This runs north of the SSI Site and out to sea across Coatham Sands.
- Study Area (Figure 2): The collective extent of the areas across which all baseline data (including third party data and survey data) were collected.
- Survey Area (Figure 3): The collective extent of the terrestrial habitats surveyed for birds (individual components of which are described below), including the plots and sub areas described above. The survey area as whole is punctuated by a network of artificial ponds; drainage channels and other water courses; access roads and rail lines (both disused and still in use); and industrial buildings (both disused and still in use). The Survey Area is therefore a mosaic of semi-natural habitats and infrastructure built to service local steel and chemical industries.
- Intertidal Count Sectors (Figure 3): Arbitrary sub-divisions of the wider Survey Area within which through-the-tide bird counts were carried out. These are located along the coastal habitats of Coatham Sands, overlapping the area under consideration for the CO₂ Connection.
- High Tide Count Sectors (Figure 3): Arbitrary sub-divisions of the wider Survey Area within
 which bird counts were carried out within specific timeframes around high tides. These sectors
 occur inland of the intertidal count sectors, covering all parts of the SSI and some of the
 industrialised habitats containing open waters to the west of it; Teardrop; Coatham Marshes to the
 east of Teardrop, the Steel House Pond to the southeast of Teardrop, and the sand dunes to the
 north (between Coatham Sands and SSI/Teardrop that overlap the area under consideration for
 the CO₂ Connection.
- **CBC Survey Areas (Figure 3)**: All parts of the wider Survey Area in which CBC surveys were carried out including SSI, Teardrop, Steel House, Coatham Sands, Saltholme Substation and Lackenby Substation.

2. Wildlife Legislation, Planning Policy and Guidance

2.1 Wildlife Legislation

- 2.1.1 The following wildlife legislation with respect to wild birds is potentially relevant to the proposed development:
 - Wildlife and Countryside Act (WCA) 1981 (as amended);
 - Countryside and Rights of Way (CRoW) Act 2000;
 - Natural Environment and Rural Communities (NERC) Act 2006; and
 - The Conservation of Habitats & Species Regulations 2017 (as amended) (the Habitats Regulations), which transpose into UK law the provisions of Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive). They also transpose elements of Directive 2009/147/EC (the EU Wild Birds Directive) in England and Wales.
- 2.1.2 Annex 1 of the EC Birds Directive lists 193 species of wild bird that are subject to special conservation measures because they are:
 - In danger of extinction;
 - Vulnerable to specific changes in their habitat;
 - Considered rare because of small populations or restricted local distribution; and/or
 - Require particular attention for reasons of the specific nature of the habitat
- 2.1.3 Article 4 of the Directive also requires that Member States designate Special Protection Areas (SPAs) for the protection of these species. Alongside Special Areas of Conservation (SAC), these form part of the Natura 2000 network of designated sites.
- 2.1.4 Further information on the requirements of the above legislation is provided in Appendix A.

National Planning Policy

- 2.1.5 The National Planning Policy Framework (NPPF) was originally published on 27th March 2012 and detailed the Government's planning policies for England and how these are expected to be applied. A revised version of the NPPF was released on 24th July 2018 (Ministry of Housing, Communities and Local Government, July 2018).
- 2.1.6 The NPPF sets out the commitment of the UK Government to minimising impacts on biodiversity and providing net biodiversity gains where possible, contributing to the Government's commitment to halt the overall decline in biodiversity.
- 2.1.7 It specifies the obligations that Local Authorities and the UK Government have regarding statutory designated sites and protected species under UK and international legislation and how these are to be delivered in the planning system. Protected or notable habitats and species can be a material consideration in planning decisions and may therefore make some sites unsuitable for particular types of development, or if development is permitted, mitigation measures may be required to avoid or minimise impacts on certain habitats and species. Where impact is unavoidable, compensation may be required.
- 2.1.8 The NPPF is clear that pursuing sustainable development includes moving from a net loss of biodiversity to achieving net gains for nature, and that a core principle for planning is that it should contribute to conserving and enhancing the natural environment and reducing pollution.
- 2.1.9 Further information on the relevant parts of the NPPF is provided in Appendix A.

Local Planning Policy

- 2.1.10 Relevant local planning policies for Redcar and Cleveland Borough Council and Stockton-On-Tees Borough Council are detailed in the following documents:
 - Redcar Publication Local Plan (November 2016);
 - Redcar and Cleveland Borough Council Local Validation Checklist (2015);
 - Stockton-On-Tees Local Plan (1997, Retained Policies);
 - Stockton-On-Tees Core Strategy Development Plan (2010); and
 - Tees Valley Green Infrastructure Strategy (2008).
- 2.1.11 The specific provisions for the protection and enhancement of biodiversity, contained within these policy documents, are set out in the PEA report (AECOM, 2018). They do not relate specifically to ornithological interests.

2.2 Guidance

Species of Conservation Concern

- 2.2.1 The Royal Society for the Protection of Birds (RSPB) (2015) and Eaton *et al.* (2015) have published lists of Birds of Conservation Concern (BoCC). Red List species are those that have declined in numbers and/or range by at least 50% over the last 25 years, those that have shown an historical population decline between 1800 and 1995; and species that are of global conservation concern. The species on the Red List are of the most urgent conservation concern.
- 2.2.2 Amber List species include those that have shown a moderate decline in numbers and/or range (25%-49%) over the last 25 years and those with total populations of less than 300 breeding pairs. Also included are those species which represent a significant proportion (greater than 20%) of the European breeding or wintering population, those for which at least 50% of the British population is limited to 10 sites or less, and those of unfavourable conservation status in Europe.
- 2.2.3 The remaining species are placed on the Green List, indicating that they are of low conservation priority. These species still receive full protection through the provisions of the WCA. Certain introduced non native species such as Canada goose (*Branta canadensis*) are not listed and for the purposes of this report are classed as having no conservation status in the UK.
- 2.2.4 These lists confer no legal status. However, they are useful when assessing the significance of predicted impacts and determining the level of mitigation that may be required when birds are affected by development or any other activity. Furthermore, inclusion on the Red List is a factor in determining the species for which national or Local Biodiversity Action Plans (BAPs) were developed.

Biodiversity Action Plans (BAPs)

- 2.2.5 The UK BAP was withdrawn in March 2011, the lists of Priority Species and Habitats being superseded by those within Section 41 of the NERC Act (2006). Local Biodiversity Action Plans (LBAPs) are no longer used as a formal expression of delivery of biodiversity targets, but identify subregional priorities for nature conservation and propose agreed actions to conserve/maintain/enhance/increase local Priority Species and Habitats.
- 2.2.6 Tees Valley Biodiversity Partnership (2012) identify 10 species (barn owl *Tyto alba*, ringed plover *Charadrius hiaticula*, grey partridge *Perdix perdix*, tree sparrow *Passer montanus*, corn bunting *Emberiza calandra*, shelduck *Tadorna tadorna*, little tern *Sterna albifrons*, bittern *Botaurus stellaris*, swift *Apus apus* and yellow wagtail *Motacilla flava*) that can be regarded as LBAP Priority Species on this basis.

3. Methods

3.1 Consultation

- 3.1.1 An initial face-to-face meeting with Natural England (NE) was held on 28th July 2017 during the early stages of the project, followed by a series of written communications setting out key points with respect to survey scope, methods and acquisition of data. A copy of the consultation response letter received from NE and a tabulated summary of the responses provided by AECOM relating to the proposed development site are included in Appendix B.
- 3.1.2 The key points with respect to the survey scope were:
 - Terrestrial areas are not solely used for roosting at high tide; they are also used at other stages of the tide. Surveys should capture this use;
 - The intertidal and high tide survey areas should be up to 500m around the [proposed development] sites;
 - Some counts should be carried out in poor weather conditions;
 - Gull counts should be included in at least some of the intertidal surveys;
 - May is an important month for ringed plover on the Tees Estuary. They occur on the sandy open coast. The SSI plot intertidal survey area includes suitable sandy beach. It would be useful to include May as a 'migratory' period for this area; and
 - Count sectors covering the Teardrop and SSI areas should be divided up to generate bird count data specific to individual water bodies in this area.
- 3.1.3 It was agreed verbally that surveys would be carried out over a minimum period of 12 months. No guidance was received regarding the geographical scope of the desk study.

3.2 Scope of Baseline Data Collection

- 3.2.1 Baseline ornithology data have been gathered by means of:
 - A data search to acquire publicly available information and records up to 10 years old from third
 parties (relevant statutory and non-statutory designated sites within 10km and 2km respectively of
 the proposed development; species records from within 2km of the proposed development;
 annual systematic count data for wetland birds within regularly monitored wetlands within a radius
 of at least 500m of the proposed development); and
 - Bespoke surveys to gather contemporary records of birds within a 12-month time period across survey areas designed around the proposed development areas and a radius of at least 500m around them and following the advice received from NE as set out above. These include breeding bird surveys and year-round wetland bird counts.
- 3.2.2 All surveys took place between September 2017 and August 2018, inclusive. The areas within which data were gathered from third parties and surveys are shown on Figures 2 and 3 respectively.
- 3.2.3 With respect to wetland bird counts, species-specific data (where available) are presented for all wetland birds but a greater level of detail is afforded to those species which are qualifying / notified features of the Teesmouth and Cleveland Coast SPA, pSPA and Ramsar site and all Sites of Special Scientific Interest (SSSI) associated with them (see Section 4.1). Ringed plover and lapwing (*Vanellus vanellus*), on passage and as part of an assemblage, respectively, were formerly listed as reasons for designation of the Natura 2000 designations prior to their removal as interest features of the SPA following the most recent SPA review (Stroud *et al.*, 2016). However for the purposes of completeness, and in accordance with requests made by NE these species have been treated as though they are still reasons for designation of these sites³.
- 3.2.4 Detailed information on the data gathering methods is provided in Sections 3.2 and 3.3.

³ With respect to Teesmouth and Cleveland Coast SPA species included on the Natura 2000 Standard Data Form (downloadable here: <u>http://jncc.defra.gov.uk/page-1401</u>) and those listed on the JNCC SPA description (<u>http://jncc.defra.gov.uk/default.aspx?page=1993</u>) are included.

3.3 Desk Study

- 3.3.1 A desk study was carried out using the data sources detailed in Table 3-1 to identify nature conservation designations and records of protected and notable species potentially relevant to the proposed development. All desk Study Areas are shown on Figure 2.
- 3.3.2 Protected and notable species include those listed under Schedules 1 of the WCA; Schedule 2 of the Habitats Regulations; Annex 1 of the EU Birds Directive; species of principal importance for nature conservation in England listed under Section 41 (s41) of the NERC Act; and other species that are Nationally Rare, Nationally Scarce or listed in national or local Red Data Lists, lists of conservation concern and Biodiversity Action Plans.
- 3.3.3 A stratified approach was taken when defining the desk Study Area, based on the precautionary approach to calculating a zone of influence of potential development impacts on different ornithological features; and an understanding of the maximum distances typically considered by statutory consultees. Accordingly, the desk study identified any international nature conservation designations within 10km of the site boundary; other statutory nature conservation designations; and protected and notable habitats and species within 1km of the SSI site boundary and the potential connection corridor areas.
- 3.3.4 British Trust for Ornithology Wetland Birds Survey sectors were selected on the basis of proximity both to the proposed development areas and the designated sites that might be affected by the proposed development and to plug potential gaps in coverage provided by AECOM's field surveys. All WeBS sectors for which data were acquired lie within the 2km search area.

Data Source	Accessed	Data Obtained
Multi-Agency Geographic Information for the Countryside (MAGIC) website https://magic.defra.gov.uk/	March 2018	 International statutory designations within 10km; and Other statutory designations within 2km.
JNCC Website (UK Protected Sites) http://jncc.defra.gov.uk/	March 2018	 Citations for internationally designated sites (SPA and Ramsar sites).
Archived Natural England Website https://designatedsites.naturale ngland.org.uk/SiteSearch.aspx	March 2018	 Citations for nationally designated sites (SSSI).
Environmental Records and Information Centre North-East	March 2018	 Non-statutory designations within 1km; and Protected and notable species records within 1km (records for the last 10 years only).
British Trust for Ornithology Wetland Birds Survey	September 2018	 Core count 5-year synopsis tables for 7 Core Count⁴ Sectors (Coatham Sands North; Redcar and Coatham Sands South; Quarries and Lagoons; Bran Sands North; Bran Sands South; Coatham Marsh; and Haverton Hole North). The data cover the count years 2012/13 – 2016/17⁵.

Table 3-1: Desk Study Data Sources

⁴ The Wetland Bird Survey (WeBS) is the long-term monitoring scheme for non-breeding waterbirds in the UK, which aims to provide the principal data for the conservation of their populations and wetland habitats. WeBS is a partnership between the British Trust for Ornithology, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee (the last on behalf of Natural England, Natural Resources Wales, Scottish Natural Heritage and the Department of the Environment Northern Ireland) in association with the Wildfowl and Wetlands Trust. Core counts are synchronised monthly counts undertaken at wetlands throughout the UK.

⁵ A BTO WeBS count year runs for 12 months from July through to the following June inclusive.

Data Source	Accessed	Data Obtained
Ordnance Survey 1:25,000 Pathfinder maps and aerial photography	February 2018	• Information on habitats and habitat connections (based on aerial photography) relevant to interpretation of planning policy and assessment of potential protected and notable species constraints.
Tees Valley Nature Partnership Website	March 2018	 General information on Local Biodiversity Action Plan Priority Species.

3.4 Field Surveys

3.4.1 The field surveys included the following:

- Through-the-tide counts of shoreline birds within intertidal count sectors, for a period of 12 months (September 2017 – August 2018, inclusive), using a method consistent with the BTO WeBS survey amended to cover the entire tidal range. Counts were undertaken twice monthly except during the period April – July, inclusive, when they were carried out once per month;
- High tide counts of wetland birds within high tide count sectors, using a method consistent with the WeBS Core (high tide) Count, over the same calendar period as the intertidal counts and with the same frequency; and
- Surveys of breeding terrestrial birds, using the Common Birds Census method described by Marchant (1983) and Gilbert *et al.* (1998) across all CBC survey areas, adapted for 5 repeat visits at approximately even intervals between April and July 2018, inclusive.
- 3.4.2 Prior to any surveys being carried out, a preliminary visit was made to establish suitable count sectors and CBC survey areas based on:
 - Distribution of habitats and the known habitat requirements of birds within the different genera and taxonomic families likely to be encountered within the Survey Area;
 - The preliminary layout or locations of proposed infrastructure;
 - The availability of suitable locations from which visual coverage of each sector could be optimised;
 - The presence of geographical and habitat features that might provide markers by which the surveyor could judge the location of birds and to aid with navigation around the Survey Area;
 - The minimisation of risks to health and safety (primarily of the surveyor); and
 - The availability of land access.
- 3.4.3 The count sectors and Survey Areas were discussed and agreed with Natural England prior to the onset of surveys (see Section 3.1). All survey areas are shown on Figure 3.
- 3.4.4 All ornithology surveys were carried out by David Pearce. David is an expert field ornithologist with over 30 years' professional experience.

Through-the-Tide and High Tide Counts

- 3.4.5 Four intertidal count sectors (Sectors 1 4) were established to cover the shoreline habitats of Coatham Sands to the north of the PDS.
- 3.4.6 Thirteen high tide count sectors were established covering:
 - The Sand Dunes adjacent to Coatham Sands to the north (Sectors A C);
 - Coatham Marsh to the east of the SSI and Teardrop (Sectors D and E);
 - The Teardrop (Sectors F and G);
 - SSI and the Teesside works immediately to the south and west of the SSI (Sectors H L); and

- The Steel House Pond (Sector SHP1).
- 3.4.7 Sector A, which covers a large section of the western half of the sand dune system, contains a series of permanent ponds or lagoons and these were divided arbitrarily to create a set of 4 sub-sectors (A1 A4) to provide better resolution to the baseline data. Similarly, Sectors D and E contain a chain of ponds and channels which were divided into 2 separate sub-sectors respectively (D1, D2, E1 and E2).
- 3.4.8 The combined spatial coverage of the count areas includes all of the proposed development within the SSI plus a radius of between approximately 1km and 3km around it, which is designed to include any habitats potentially associated with or functionally-linked to several key designated sites for birds (see Section 4). The count sectors are shown on Figure 2 and the overlaps between AECOM count sectors, WeBS count sectors and the proposed development are summarised in Table 3-2.

Table 3-2: Summary of the Overlapping Count Sectors in Relation to the Proposed Indicative Development Areas.

AECOM Sector ¹	Overlap (partial or total) with PDS	Overlap (partial or total) with BTO WeBS Sector(s)
1	CO ₂ export corridor	Coatham Sands North; Redcar and Coatham Sands South
2	CO ₂ export corridor	Redcar and Coatham Sands South
3	CO ₂ export corridor	Redcar and Coatham Sands South
4		Redcar and Coatham Sands South
A	CO ₂ export corridor	Quarries and Lagoons
A1	CO ₂ export corridor	Quarries and Lagoons
A2	CO ₂ export corridor	Quarries and Lagoons
A3	CO ₂ export corridor	Quarries and Lagoons
A4	CO ₂ export corridor	Quarries and Lagoons
В	CO ₂ export corridor	Quarries and Lagoons
с		
D		Coatham Marsh
D1		Coatham Marsh
D2		Coatham Marsh
E	CO ₂ export corridor; Booster Station	Coatham Marsh
E1		Coatham Marsh
E2		Coatham Marsh
F	CO ₂ export corridor; Electricity corridor	
G	Electricity corridor	

AECOM Sector ¹	Overlap (partial or total) with PDS	Overlap (partial or total) with BTO WeBS Sector(s)
н	Power station; Electricity corridor; Gas corridor	
I	Power station	
J		
к	Power Station	
L	Power Station	
SHP1		

¹ Blue shading indicates intertidal count sectors; red shading indicates inland high tide count sectors.

3.4.9 Surveys followed the standard WeBS protocol⁶, involving the systematic counting of all water birds within each sector and sub-sector. The distribution of the birds counted was mapped using BTO species codes on suitably scaled field maps. Survey times, weather conditions, visibility and sources of disturbance were recorded for each count sector on each survey. Each survey visit was carried out over a period of 1 day, during which a high tide count and an intertidal count was completed. The intertidal counts were split as evenly as possible between ebbing (high-ebb-low) and flowing (low-flow-high) tides so that all possible variations of tidal stage and tidal progression were covered as evenly as possible, given the restrictions imposed by the coincidence of daylight hours and tide cycles. Table 3-3 summarises the survey dates and tidal ranges covered on each survey. Detailed metadata are provided in Appendix C.

Date	Count Time	Tidal Range	Low Tide ¹	High Tide ¹	Weather Conditions ²
2017					
11 th Contombor	10:00 - 16:00	Intertidal (flowing)		10:07	14-16°C; dry; wind NW 3-6; visibility >3km
11 ^{er} September	16:00 - 18:00	High	12:56	19:07	14°C; dry; wind NW 6-7; visibility >3km
25 th September	07:00 - 09:00	High	12:40	06:24	15-15°C; light rain; wind SE 2-3; visibility >3km
	09:00 - 15:00	Intertidal (ebbing)			15°C; dry; wind SE 1; visibility >3km
10 th October	07:30 - 09:30	High	12:37	06:12	14°C; showers; wind NW 2-3; visibility >3km
	09:30 - 15:30	Intertidal (ebbing)			14°C; dry; NW 3-4; visibility >3km
24 th October	09:30 - 15:30	Intertidal (flowing)	12:03	18:09	14-16oC; dry; wind SW 2-5; visibility >3km
	15:30 - 17:30	High			14°C; dry; SW 5; visibility >3km
14 th November	08:00 - 14:00	Intertidal (flowing)	16:46	12:57	12°C; mostly dry with one shower; wind NW 2; visibility >3km
	14:00 - 16:00	High			12°C; dry; wind NW 2; visibility >3km
27 th November	08:00 - 10:00	High	15:57	09:47	7°C; dry; wind NW 4; visibility >3km
	10:00 - 16:00	Intertidal (ebbing)			6-7°C; wind NW 4-5, occasional

Table 3-3: High Tide and Intertidal Count Summary Metadata (all times in 24hr clock format)

⁶ WeBS count instructions are available at <u>https://www.btoorg/volunteer-surveys/webs/taking-part/counter-resources</u>

Date	Count Time	Tidal Range	Low Tide ¹	High Tide ¹	Weather Conditions ²
					showers; visibility >3kmm
**	08:00 - 10:00	High		05:57	8° C; dry; wind SW 5-6; visibility >3km
7 ^m December	10:00 - 16:00	Intertidal (ebbing)			7-9oC; dry, wind SW 5-6; visibility >3km
19 th December	08:00 - 14:00	Intertidal (flowing)	10:13	16:14	9-11°C; dry; wind SW 3-4; visibility >3km
	14:00 - 16:00	High			9°C; dry; wind SW 3-4; visibility >3km
2018					
9 th Jopuon/	08:00 - 10:00	High		09.22	3-5°C; dry; wind SE 1-2; visibility >3km
8 January	10:00 – 16:00	Intertidal (ebbing)	14.27	08.23	5-7°C; dry; wind SE 2-6; visibility >3km
20 th January	08:00 - 14:00	intertidal (flowing)	10:29	16:30	3-4°C; dry; wind SW 2; visibility >3km
	14:00 - 16:00	High			6°C; dry; wind SW 2; visibility >3km
1 st February	08:00 - 14:00	Intertidal (flowing)	10:19	16:15	4-5°C, dry, wind NW 5-6; visibility ≥3km
	14:00 - 16:00	High			7°C; dry; wind NW 5-6; visibility >3km
19 th February	07:30 - 09:30	High		05:46	8°C; light rain; wind SW 1-2; visibility <2km
	09:30 – 15:30	Intertidal (ebbing)			8-9⁰C; light rain; wind SW 1; visibility <1km up to <3km
8 th March	07:00 - 09:00	High			3°C; heavy rain from 08:20hrs turning to sleet/snow by 09:00hrs; wind NE 1-2; visibility >3km
	09:00 – 15:00	Intertidal (ebbing)		05:50	2-7°C; heavy rain and sleet 09:00- 11:15hrs then dry; wind NE 1-2, N3, NW3; visibility >3km
19 th March	08:30 – 14:30	Intertidal (flowing)	10:56	16:49	6-8°C; dry; wind NE 6; visibility >3km
	14:30 - 16:30	High			8°C; dry; wind NE 5; visibility >3km
ord An at	07:00 - 09:00	High		06:19	6-10°C; rain showers; wind SE 2; visibility >3km
3 April	09:00 - 15:00	Intertidal (ebbing)	11:33		10-12°C, rain showers to 12:00hrs then dry; wind SE 2; visibility >3km
the second	07:00 - 09:00	High			6°C; heavy rain; wind NE 3-4; visibility <3km
10"' April	09:00 – 15:00	Intertidal (ebbing)	—16:42	10:56	6°C, heavy rain to 12:00hrs then dry; wind NE 4-5; visibility <3km
	06:30 - 12:30	Intertidal (flowing)			9-12°C; dry; wind N 5; visibility >3km
25 th May	12:30 – 14:30	High		12:33	12°C; occasional showers; wind N 5; visibility >3km
	06:15 – 08:15	High			14-17°C; dry; wind W 2; visibility
19 th June			14:13	07:39	>3km
	08:15 – 14:15	Intertidal (ebbing)			17-22°C; dry; wind NW 3 then W3
27 th July	06:30 – 12:30	Intertidal (flowing)	09:36	15:43	16-23°C, rain for most of survey; wind SE 1-2; visibility >3km

Date	Count Time	Tidal Range	Low Tide ¹	High Tide ¹	Weather Conditions ²
	12:30 – 14:30	High			26-28°C; dry; wind S 2; visibility >3km
10 th August	06:15 – 12:15	Intertidal (flowing)		14:40	12-21°C; mostly dry, brief spell of showers; wind SW 3; visibility >3km
	12:15 – 14:15	High			 16-21°C; heavy rain showers; wind SW3; visibility >3km
20 th August	08:45 – 10:45	High		10:49	18°C; dry; wind NW 1-2; visibility >3km
	10:45 – 16:45	Intertidal (ebbing)			 18-19°C; dry; wind SE 2-3; visibility >3km

¹ Low and High Tides for River Tees Entrance.

² Conditions summarised for the entire count period. Wind direction and speed recorded using 16 point compass and Beaufort scale, respectively.

Breeding Bird Surveys

- 3.4.10 Breeding bird survey areas were selected to provide baseline data to inform the assessment of potential impacts on nesting birds arising from the construction and operation of the proposed infrastructure where these intersect or are adjacent to areas of semi-natural habitat. The survey areas are shown on Figure 3 and can be defined as follows:
 - SSI and Teardrop: includes all parts of Teardrop and the immediately adjacent parts of SSI and Coatham Marsh. This area is broadly consistent with the area covered by Sectors F, G and the periphery of Sectors E and I;
 - Steelhouse Loop: includes Steelhouse pond and the surrounding ornamental gardens. It covers all of count sector SHP1 and the land immediately around it;
 - Coatham Sands and Gare Road: includes a section of the sand dune system to the north of SSI that is broadly consistent with the area covered by Sector A;
 - Saltholme Substation: includes the substation and the land immediately surrounding it, approximately 7km west of SSI; and
 - Lackenby Substation: includes the substation and the land immediately surrounding it, approximately 5km south of SSI.
- 3.4.11 The surveys followed a standard CBC protocol (Marchant, 1983; Gilbert *et al.*, 1998), amended to 5 repeat survey visits⁷. The surveyor followed a transect through the survey area that enabled him to access all parts of it to within 50-100m. The species, distribution and activity of all birds detected were recorded on suitably scaled field maps using BTO species codes and behaviour notations.
- 3.4.12 Surveys were carried out on days with little or no wind, rain or mist in order to maximise the potential for detection of birds and to avoid the possibility of bird activity being suppressed by inclement weather conditions. Table 3-4 provides summary metadata for the CBC surveys. Detailed metadata are provided in Appendix D.

		Survey Times (24hrs)				
Survey No.	Date	SSI and Teardrop; Steelhouse Loop	Coatham Sands and Gare Road	Saltholme Substation	Lackenby Substation	
1	17 th April	07:15 – 10:00	10:15 – 12:15	12:45 – 13:15	13:40 - 14:40	
2	23 rd April	09:30 – 12:15	06:40 - 09:10	12:45 – 13:15	13:40 - 14:40	
3	22 nd May	07:00 - 09:15	09:15 – 11:30	12:00 – 12:30	12:55 – 14:00	

Table 3-4: CBC Survey Summary Metadata, 2018

⁷ A standard CBC survey includes 10 repeat visits which enables a high consistency of results when repeating surveys from year to year for the purposes of monitoring population change over time. However for the purposes of determining breeding numbers for an impact assessment, a smaller number of visits is usually sufficient.

	Survey Times (24hrs)					
Survey No.	Date	SSI and Teardrop; Steelhouse Loop	Coatham Sands and Gare Road	Saltholme Substation	Lackenby Substation	
4	12th June	07:00 – 09:15	09:15 – 11:30	12:00 – 12:30	12:55 – 14:00	
5	12 th July	09:15 – 11:50	06:45 – 09:15	12:20 – 12:50	13:15 – 14:30	

- 3.4.13 The number of breeding pairs or territories for each species recorded was determined from the mapped survey data to identify and isolate areas within which birds displayed consistent breeding behaviours (following Gilbert *et al.* 1998). The territory mapping method is based on the observation that many species during the breeding season are territorial. This is most marked in passerines where territories are often determined by conspicuous song, display and territorial disputes with neighbouring conspecifics. The expected outcome of this technique is that mapped registrations fall into clusters, approximately coinciding with territories.
- 3.4.14 Birds were recorded as non-breeding under the following circumstances:
 - If they were recorded within habitat not suitable for nesting and not showing any signs of breeding behaviour (such as birds that were feeding in habitats unsuitable for nesting);
 - If an individual was recorded only during one survey visit at a given location; and
 - If a species was recorded flying over the survey area but not landing within it or showing any behaviours associated with breeding (such as song flight or display flight).
- 3.4.15 Non-breeding species are included in the data set and are referred to within this report for the benefit of quantifying the overall bird assemblage as well as the breeding assemblage.
- 3.4.16 Analysis of breeding numbers was carried out by the surveyor.

Limitations

- 3.4.17 There were no significant limitations to the surveys in terms of land access, disturbance or weather conditions, with the exception of the substations, which were surveyed from public roads and paths only due to access restrictions.
- 3.4.18 All intertidal and high tide surveys undertaken by AECOM were completed within suitable timeframes with respect to tidal cycles and the majority of CBC surveys were completed in the morning when birds are active and readily detectable. However the CBC surveys at each substation were carried out in the afternoon, by which time breeding bird activity levels would have been depressed and detection rates were likely to be lower. This is not considered to be a significant limitation because the substations are unlikely to be subjected to significant levels of disturbance and represent a small part of the overall proposed development area.
- 3.4.19 The number of repeat CBC surveys was reduced to 5 from the standard of 10 that is recommended for monitoring breeding populations over time. This was considered to be the minimum number required for determining breeding numbers and distributions with sufficient reliability to inform the evolving design and impact assessment of the proposed development.
- 3.4.20 The first CBC visit was carried approximately 2 weeks later than the recommended start date for CBC surveys, which is mid late-March for southern and central England. However in northern England it is widely regarded as acceptable to extend this period into early April because of the generally later onset of spring weather in the northern half of the UK. Furthermore, in 2018 spring rainfall in the north-east of England was above average, resulting in a wet spring that was delayed following an extended winter season (Meteorological Office 2018 weather summaries website: https://www.metoffice.gov.uk/climate/uk/summaries/2018), which is likely to have suppressed breeding bird behaviour early in the 2018 breeding season. The start of the CBC surveys in mid-April is therefore not regarded as a significant limitation.

4. Results

4.1 Desk Study

Statutory Designations

4.1.1 Table 4-1 sets out the statutory nature conservation designations with ornithological qualifying / notified features, as identified by the desk study based on the method given in Section 2.1 of this report. The international and national designations respectively are listed in ascending order of distance from the proposed development. Statutory designated site locations are shown on Figure 4.

Table 4-1: Statutory Designated Sites Within the Study Area

Designation	Key Reason(s) for Designation / Qualifying Features	Other Reason(s) for Designation or Noteworthy Ecological Features	Spatial Relationship to the Proposed Development
INTERNATIONAL	-		

Teesmouth and Cleveland Coast SPA	 Designated for numbers of marine and shore birds. Breeding population of: Little tern: 40 pairs, 1.7% of UK population; Concentrations of: Sandwich tern (<i>Sterna</i> sandvicensis): 1900 birds, 6.8% of UK pop.; Redshank (<i>Tringa totanus</i>): 1648 birds, 1.1% of UK pop.; Wintering assemblage of: Shoveler (<i>Anas clypeata</i>); Teal (<i>Anas crecca</i>); Knot (<i>Calidris canutus</i>): 5509 birds, 1.6% of pop.; Cormorant (<i>Phalacrocorax carbo</i>); Shelduck (<i>Tadorna tadorna</i>). 	Waterfowl assemblage.	Within northern CO ₂ Connection Corridor.
Teesmouth and Cleveland Coast Ramsar site	 Designated for its high peak winter counts of waterfowl assemblage count. Peak spring/ autumn count of redshank. Peak winter counts of knot. 	Broad range of habitats: sand/mud flats, saltmarsh, freshwater marsh and sand dunes. Nationally scarce; rush-leaved fescue (<i>Festuca arenaria</i>), stiff salt-marsh grass (<i>Puccinellia rupestris</i>), brackish water- crowfoot (<i>Ranunculus</i> <i>baudotii</i>). Rich invertebrate assemblage, including seven Red Data Book species.	Within northern CO ₂ Connection Corridor.
Teesmouth and	The SPA extension is proposed to include	The inclusion of additional terrestrial	Within northern CO ₂ Connection

Designation	Key Reason(s) for Designation / Qualifying Features	Other Reason(s) for Designation or Noteworthy Ecological Features	Spatial Relationship to the Proposed Development
Cleveland Coast pSPA ⁸ and Ramsar extension	 marine and terrestrial foraging habitats for: Little tern; Common tern (<i>Sterna hirundo</i>); Avocet (<i>Recurvirostra avosetta</i>); and Ruff (<i>Calidris pugnax</i>). The possible marine extension for little tern foraging reaches 5km in both directions along the coast from the colony; between Hartlepool Headland and Castle Eden Dene mouth, and extends up to 3.5km offshore. Another extension to protect foraging areas for common tern has also been identified and includes the main channel of the River Tees below the barrage, estuary waters, and marine areas between Marske-by-the-Sea in the south and Crimdon Dene in the north, extending up to6 km offshore. 	habitats within the SPA extension is also proposed and includes wet grassland, saltmarsh, deep and shallow pools and intertidal areas important for other foraging and roosting waterbirds which are features of the existing SPA.	Corridor.
North York Moors SPA	 Designated for its high numbers of breeding: Golden plover (<i>Pluvialis apricaria</i>): 526 breeding pairs (2.3% of national breeding population); and Merlin (<i>Falco columbarius</i>): 35 breeding pairs (2.7% of national breeding population). 		6.6km southeast of the Electricity Connection Corridor at Lackenby substation.
NATIONAL			
Teesmouth and Cleveland Coast SSSI	 The six SSSIs detailed below were notified as one overarching SSSI on 31 July 2018 t with some extensions to include a number of previously undesignated areas. The renotification amalgamates the previous SSSI areas with other designated sites across the Teesmouth & Cleveland Coast area and expands the overall designation to include other valuable, previously undesignated habitat areas. The proposal also includes some exemptions from the existing designations, such as a low value area of Seal Sands. The relationship between the Survey Area and this expanded SSSI will be much the same as that detailed for individual sites below although the SSSI would extend to grazing marsh areas closer to Saltholme Substation. Also the section of Seal Sands 		
	from the designation.		
Seal Sands SSSI	Aggregations of non-breeding birds: knot, redshank, shelduck.	Littoral Sediments. Waterbird assemblage of knot, little tern, redshank and sandwich tern.	Within Gas Connection Corridor.
South Gare and	Aggregations of non-breeding birds: knot,	Sand Dune habitats	Immediately north of SSI

⁸ NE has reviewed the designations in this area and has recommended to Government the existing SPA and Ramsar be revised to include extensions and additional qualifying interests.

Designation	Key Reason(s) for Designation / Qualifying Features	Other Reason(s) for Designation or Noteworthy Ecological Features	Spatial Relationship to the Proposed Development
Coatham Sands SSSI	ringed plover, sanderling (<i>Calidris alba</i>), little tern. Dune and dune grassland habitats.	(strandline, embryo and mobile dunes) and fixed dune grasslands.	site, within CO ₂ Connection Corridor.
		Also waterbird assemblage of knot, little tern, redshank and sandwich tern.	
Tees and Hartlepool Foreshore and Wetlands SSSI	Aggregations of non-breeding birds: purple sandpiper (<i>Calidris maritima</i>), sanderling, shoveler.	None.	Approx. 120m south of Saltholme substation.
	open waters and their margins.		
Seaton Dunes and Common	Saltmarsh, fixed dune grassland and lowland wet neutral grassland habitats.	Dune habitats, lowland wet grasslands.	300m north of Gas Connection
	Aggregations of non-breeding birds: knot, ringed plover, sanderling, turnstone (<i>Arenaria interpres</i>).	Little tern, redshank, sandwich tern and waterbird assemblage.	Corridor.
	Also waterbird assemblage of knot, little tern, redshank and sandwich tern.		
Teesmouth National Nature	20,000+ waterbird assemblage.	Community Involvement,	600m north of Gas
Reserve	LBAP breeding birds (waders, grey partridge, skylark (<i>Alauda arvensis</i>), linnet (<i>Linaria cannabina</i>), reed bunting (<i>Emberiza schoeniclus</i>).	Invertebrate Assemblages, Lyme Grass Moth (<i>Chortodes</i> <i>elymi</i>), Saltmarsh Plant	Connection Corridor.
	Harbour seal (<i>Phoca vitulina</i>).	Assemblages, Sand Dune Plant	
	Knot (non-breeding), little tern (breeding), redshank (non-breeding), ringed plover (spring), sandwich tern (post-breeding), shelduck (winter).	Assemblages.	
Cowpen Marsh SSSI	Saltmarsh Habitat, Lowland wetland, lowland wet neutral grassland and floodplain fen habitats.	Waterbird assemblage: redshank, sandwich tern, little tern, knot.	780m north of Saltholme substation.
Eston Moor LNR	Habitats include lowland heathland with birch woodland, scrub, wetland and acid grassland. It is a good site for birds, dragonflies and damselflies.	Archaeological interest.	1.2km south of Lackenby substation.
Seaton Dunes and Common LNR	The dune system is one of the largest and most diverse in north-east England with fore dune, mobile dune, semi and fixed sand dune habitats.	Adjacent Common is low-lying marsh habitat with network of creeks and ditches and hence ideal habitat for migrant/overwintering waterfowl, with seasonal and	2.5km north of Gas Connection Corridor.

Designation	Key Reason(s) for Designation / Qualifying Features	Other Reason(s) for Designation or Noteworthy Ecological Features	Spatial Relationship to the Proposed Development
		permanent waterbodies.	
Redcar Rocks SSSI	Aggregations of non-breeding birds: knot, ringed plover, sanderling.	Geological features. Waterbird assemblage of knot, little tern, redshank and sandwich tern.	3km west of SSI site boundary.

Non-statutory Designations

4.1.2 Table 4-2 sets out the non-statutory nature conservation designations, identified by the desk study as having one or more ornithological interest features. The designations are listed in ascending order of distance from the proposed development, and are shown on Figure 5.

Table 4-2: Non – Statutor	v Designated Sites	Within the Stud	v Area
1 abie 4-2. Non – Statutor	y Designated Siles	within the Stud	у ніса

Designation	Reason(s) for Designation	Relationship to the Site
RSPB Reserve Saltholme	One of the largest breeding colonies of common terns in the UK.	Immediately adjacent to Gas Connection Corridor and Saltholme substation.
	Lapwings, peregrines (<i>Falco peregrinus</i>), water rail (<i>Rallus aquaticus</i>) and yellow wagtail common at the site.	
Zinc Works Field LWS	It is notable for supporting important numbers of passage passerine birds and in particular it has on occasion held >0.5% of the national population of ring ouzel (<i>Turdus torquatus</i>). It also supports some SPA birds but usually in relatively low numbers.	2km north of Gas Connection Corridor.
Greatham North LWS	Saltmarsh habitat designated on account of remnants of saltmarsh vegetation in tidal creeks cut off by a sea wall. Significant ornithological interest, though not high enough to merit LWS status. In 2014 the sea wall was breached as part of a managed realignment scheme to create inter tidal habitat as compensation for adverse effects to the SPA. Site would thereafter be given SPA level protection.	2.4km north of Gas Connection Corridor.
Greatham Creek North Bank LWS	Saltmarsh habitat, dominated by saltmarsh grass (<i>Puccinellia</i> sp.) with a glasswort (<i>Salicornia</i> sp).	2.4km north of Gas Connection Corridor.
	The mudflats along the bank are used by SPA birds but anecdotally these would appear to occur in small numbers ⁹ .	
Greenabella Marsh LWS	The LWS is contiguous with the SPA/SSSI, with brackish rather than freshwater habitats.	2.4km north of Gas Connection Corridor.

⁹ Text reproduced as shown in LWS Citation document

Designation	Reason(s) for Designation	Relationship to the Site
	Water vole, high numbers of amphibians and the pools and ditches likely to support at least seven species of odonata. Common lizard (<i>Zootoca vivipara</i>) has been recorded outside of the current boundary of the LWS. Dingy Skipper (<i>Erynnis tages</i>) and grayling (<i>Hipparchia semele</i>) are present.	

Species Records

- 4.1.3 ERIC North-East returned a large number of records of protected and/or notable species within the desk study search area. Many of the species were represented by multiple records across several dates. A summary of the notable species for which records were provided is included in Table 4-3. An abridged copy of the full data set, which includes all species recorded regardless of conservation status, is included in Appendix E, however only those records verified by the supplier as "correct" are included, in order to rationalise the volume of data presented.
- 4.1.4 The records acquired reflect the general prevalence of wetland and coastal habitats (and the relatively high levels of recording effort afforded to these habitats especially through BTO WeBS counts), with 57 of the 89 species listed being a water bird (generally defined as a wader, duck, goose, swan, heron, tern, gull, sawbill, cormorant, grebe, moorhen *Gallinula chloropus*, coot *Fulica atra* or kingfisher *Alcedo atthis*). Of these there are 35 notable species (those afforded elevated legal protection and those listed as being of conservation priority and/or undergoing significant population decline represented respectively by Schedule 1 and Annex 1 birds, Section 41 and LBAP species and Red List species). All but one of the species (sandwich tern) associated with the statutory designated sites listed in Table 4-1 are represented in the data set (cormorant is listed only in Appendix E).
- 4.1.5 Notable terrestrial species include barn owl, cuckoo (*Cuculus canorus*), fieldfare (*Turdus pilaris*), grasshopper warbler (*Locustella naevia*), house sparrow (*Passer domesticus*), lesser spotted woodpecker (*Dendrocopos minor*), linnet, marsh harrier (*Circus aeruginosus*), merlin, peregrine, reed bunting, skylark, starling (*Sturnus vulgaris*), swift, tree sparrow, yellow wagtail and yellowhammer (*Emberiza citrinella*). The records do not include any information regarding the breeding status of these species.

Common Name	Scientific Name	Conservation Status (see footnotes)
Avocet	Recurvirostra avosetta	S1, A1
Barn owl	Tyto alba	S1, LBAP
Bar-tailed godwit	Limosa lapponica	S1
Bewick's swan	Cygnus columbianus subsp. Bewickii	S1, A1
Bittern	Botaurus stellaris	S1, A1, LBAP
Black tern	Chlidonias niger	S1, A1
Black-headed gull	Chroicocephalus ridibundus	
Black-necked grebe	Podiceps nigricolis	S1
Black-tailed godwit	Limosa limosa	S1, S41
Brent goose	Banta bernicla subsp. Bernicla	
Common gull	Larus canus	
Common scoter	Melanitta nigra	S1, S41
Common tern	Sterna hirundo	A1

Table 4-3: Summary Records of Species of Conservation Importance Received from ERIC

Common Name	Scientific Name	Conservation Status (see footnotes)
Cuckoo	Cuculus canorus	
Curlew	Numenius arquata	S41
Curlew sandpiper	Calidris ferruginea	
Dunlin	Calidris alpina	A1
Dunnock	Prunella modularis	S41
Eider	Somateria mollissima	
Fieldfare	Turdus pilaris	S1
Garganey	Spatula querquedula	S1
Golden plover	Pluvialis apricaria	A1
Goldeneye	Bucephala clangula	S1
Grasshopper warbler	Locustella naevia	S41
Great black-backed gull	Larus marinus	
Green sandpiper	Tringa ochropus	S1
Greenshank	Tringa nebularia	S1
Grey plover	Pluvialis squatarola	
Greylag goose	Anser anser	
Guillemot	Uria aalge	
Herring gull	Larus argentatus	S41
House martin	Delichon urbicum	
House sparrow	Passer domesticus	S41
Kestrel	Falco tinnunculus	
Kingfisher	Alcedo atthis	S1, A1
Kittiwake	Rissa tridactyla	
Knot	Calidris canutus	
Lapwing	Vanellus vanellus	S41
Lesser black-backed gull	Larus fuscus	
Lesser-spotted woodpecker	Dendrocopos minor	S41
Linnet	Linaria cannabina	
Little gull	Hydrocoloeus minutus	S1
Little ringed plover	Charadrius dubius	S1
Little tern	Sterna albifrons	S1, A1, LBAP
Long-tailed duck	Clangula hyemalis	S1
Mallard	Anas platyrhynchos	
Marsh harrier	Circus aeruginosus	S1
Meadow pipit	Anthus pratensis	
Merlin	Falco columbarius	S1, A1
Mute swan	Cygnus olor	
Oystercatcher	Haematopus ostralegus	

Common Name	Scientific Name	Conservation Status (see footnotes)
Peregrine	Falco peregrinus	S1, A1
Pintail	Anas acuta	S1
Pochard	Aythya ferina	
Redshank	Tringa totanus	
Red-throated diver	Gavia stellata	S1, A1
Reed bunting	Emberiza scheoniclus	S41
Ringed plover	Charadrius hiaticula	LBAP
Ruff	Calidris pugnax	S1, A1
Sanderling	Calidris alba	
Scaup	Aythya marila	S1
Shag	Phalacrocorax aristotellis	
Shelduck	Tadorna tadorna	LBAP
Shoveler	Spatula clypeata	
Skylark	Alauda arvensis	S41
Spoonbill	Platalea leucorodia	S1, A1
Spotted redshank	Tringa erythropus	
Starling	Sturnus vulgaris	S41
Stock dove	Columba oenas	
Swift	Apus apus	LBAP
Teal	Anas crecca	
Tree sparrow	Passer montanus	S41, LBAP
Turnstone	Arenaria interpres	
Whimbrel	Numenius phaeopus	S1
Whooper swan	Cygnus cygnus	S1
Wigeon	Mareca penelope	
Willow warbler	Phylloscopus trochilus	
Yellow wagtail	Motacilla flava	S41, LBAP
Yellowhammer	Emberiza citrinella	S41

*Abbreviation	Legislation / Source	Meaning
S1	Wildlife and Countryside Act Schedule 1	Special penalties exist for offences related to species listed on Schedule 1, for which there are additional offences of disturbing these birds and / or their dependent young at their nests.
A1	EU Wild Birds Directive Annex 1	Rare and vulnerable species of regularly occurring wild birds. The Directive requires these species to be the subject of special conservation measures in order to ensure their survival and reproduction. In the UK such measures are implemented through the provisions of the Habitats Regulations 2017.
S41	Natural Environment and Rural Communities Act 2006	Species "of principal importance for the purpose of conserving biodiversity" covered under section 41 (England) of the NERC Act (2006)
LBAP	Tees Valley Biodiversity Partnership (2012)	Species identified being of local priority for the preparation of action plans in the Tees Valley.
	Birds of Conservation Concern 4 (2015) Red List Species	Breeding population is in severe decline (>50 % in last 25 years) and those which are globally threatened (IUCN). The species on the Red List are of the most urgent conservation concern
	Birds of Conservation Concern (2015) Amber List Species	Breeding population is in moderate decline $(25 - 49\%)$ in the last 25 years), rare breeders, internationally important and localised species and those of unfavourable conservation status in Europe
	Birds of Conservation Concern (2015) Green List Species	Low conservation priority.

- 4.1.6 Five-year synopsis data were received from WeBS for all count sectors requested (one data set per sector). Each data set provides the following metrics, which are tabulated separately:
 - 1. Maximum total count of all species combined by season and count year;
 - 2. Five-year average monthly counts of each species;
 - 3. Five-year peak monthly counts of each species;
 - 4. Five-year autumn, winter and spring peak counts (and the month in which the peak was recorded) for each species;
 - 5. Five-year annual peak counts (and the month in which the peak was recorded) for each species; and
 - 6. A five-year summary, giving national and international importance of the sector for each species against standardised population thresholds used when designating sites for ornithological interest.
- 4.1.7 The data sets are included in full in Appendix F. In order to rationalise the volume of data presented within the narrative of this report, Tables 4-4 4-29 summarise, by sector, the highest count for each month over five years (metric 3 above); and the average monthly count (to the nearest whole number) for the five-year count period (metric 2 above) for all of the SPA/Ramsar/pSPA/SSSI species and Schedule 1 species that are not otherwise qualifying / notified features of the designated sites. For SPA / Ramsar / pSPA / SSSI species:
 - Peak monthly counts highlighted orange show the month with the highest peak count recorded over 5 years for each species;
 - Average monthly counts highlighted orange are the most numerous species in each month, based on the average count; and
 - Average monthly counts highlighted green are the second most numerous species in each month, based on the average count.
- 4.1.8 Detailed discussion of the spatial and temporal occurrence of each species is beyond the scope of this report and would be of little value in the context of a proposed development whose design is no more than indicative at the time of writing. However some observations of trends and patterns of species distribution can be made.
- 4.1.9 Species occurring within intertidal habitats (Coatham Sands North; Redcar and Coatham Sands South; Bran Sands North; and Bran Sands South) and their immediate surroundings only are sanderling, ringed plover, knot, turnstone, little tern and sandwich tern. These species would likely be

most vulnerable to the potential impacts associated with the construction and / or operation of the CO_2 , Electricity and Gas connections and Saltholme substation.

- 4.1.10 Species occurring only within non-tidal habitats (represented by Quarries and Lagoons; and Coatham Marsh) include lapwing, redshank and ruff. These species would be potentially vulnerable to both the construction and operation of the clean gas plant and to the construction and/or operation of the connections, especially the CO₂ export connection.
- 4.1.11 Shoveler, teal, cormorant, shelduck, and common tern occurred to varying extents in coastal and inland count sectors and would be potentially vulnerable to impacts associated with the construction and / or operation of any of the elements of the proposed development.
- 4.1.12 Species occurring at Haverton Hole North were represented by a range of waders and ducks, with teal and shoveler being especially numerous here on a year-round basis. It is possible that species occurring in this location would be vulnerable to the impacts of construction of the Saltholme substation.

Common name	Scientific Name	Jul	Aug	Sep	Oct	Νον	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Teal	Anas crecca	0	0	105	25	0	7	0	0	0	0	0	0
Cormorant	Phalacrocorax carbo	6	3	2	4	16	16	6	5	6	5	3	12
Ringed Plover	Charadrius hiaticula	20	88	123	3	1	0	1	8	14	29	115	13
Knot	Calidris canutus	0	2	19	50	100	6	31	15	0	0	0	3
Sanderling	Calidris alba	35	150	75	128	54	76	144	182	90	279	165	49
Redshank	Tringa totanus	4	11	1	214	135	290	5	43	45	141	0	0
Turnstone	Arenaria interpres	15	20	29	70	90	100	125	25	58	21	50	2
Purple Sandpiper	Calidris maritima	0	0	0	1	7	22	26	22	0	10	0	0
Little Tern	Sterna albifrons	75	4	0	0	0	0	0	0	0	0	2	6
Sandwich Tern	Sterna sandvicensis	16	110	14	4	0	0	0	0	0	3	18	45
Common Tern	Sterna hirundo	80	110	1	0	0	0	0	0	0	0	4	53

Table 4-4: Five Year Peak Monthly Counts of Ramsar, SPA, pSPA and SSSI Species at Coatham Sands North

Table 4-5: Five Year Average Monthly Counts of Ramsar, SPA, pSPA and SSSI Species at Coatham Sands North

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Teal	Anas crecca	0	0	35	5	0	1	0	0	0	0	0	0
Cormorant	Phalacrocorax carbo	5	1	1	4	9	6	3	3	2	3	2	8
Ringed Plover	Charadrius hiaticula	10	70	75	1	0	0	0	5	7	18	60	4
Knot	Calidris canutus	0	1	6	50	50	1	11	6	0	0	0	3
Sanderling	Calidris alba	7	66	30	128	35	46	72	95	47	197	58	25
Redshank	Tringa totanus	1	3	0	21	55	146	2	23	24	57	0	0
Turnstone	Arenaria interpres	15	12	13	70	76	67	36	19	32	14	17	0
Purple Sandpiper	Calidris maritima	0	0	0	1	4	11	13	5	0	3	0	0
Little Tern	Sterna albifrons	75	2	0	0	0	0	0	0	0	0	1	2
Sandwich Tern	Sterna sandvicensis	12	43	5	1	0	0	0	0	0	1	0	34
Common Tern	Sterna hirundo	55	73	0	0	0	0	0	0	0	0	2	21

Species	Scientific Name	Jul	Aug	Sep	Oct	Νον	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Common Scoter	Melanitta nigra	0	0	0	0	1	0	0	0	0	0	0	1
Velvet Scoter	Melanitta fusca	0	0	0	0	0	0	0	0	0	0	4	0
Red-throated Diver	Gavia stellata	0	0	0	0	1	0	1	0	2	0	0	0
Great Northern Diver	Gavia immer	0	0	0	0	0	0	0	1	1	1	0	0
Whimbrel	Numenius phaeopus	0	1	0	0	0	0	0	0	0	0	0	0

Table 4-6: Five Year Peak Monthly Counts of Schedule 1 Species at Coatham Sands North

Table 4-7: Five Year Average Monthly Counts of Schedule 1 Species at Coatham Sands North

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Common Scoter	Melanitta nigra	0	0	0	0	0	0	0	0	0	0	0	1
Velvet Scoter	Melanitta fusca	0	0	0	0	0	0	0	0	0	0	1	0
Red-throated Diver	Gavia stellata	0	0	0	0	0	0	0	0	0	0	0	0
Great Northern Diver	Gavia immer	0	0	0	0	0	0	0	1	0	0	0	0
Whimbrel	Numenius phaeopus	0	1	0	0	0	0	0	0	0	0	0	0

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Shelduck	Tadorna tadorna	0	0	0	0	0	0	0	0	0	0	0	2
Teal	Anas crecca	0	0	1	0	0	0	0	0	0	0	0	0
Cormorant	Phalacrocorax carbo	3	3	4	12	9	3	15	5	2	9	2	2
Knot	Calidris canutus	0	20	0	6	1	0	0	0	0	15	0	0
Sanderling	Calidris alba	1	36	140	34	102	123	180	100	195	73	80	0
Redshank	Tringa totanus	0	0	1	2	35	136	220	210	159	47	0	0
Turnstone	Arenaria interpres	7	3	5	107	38	37	65	85	27	109	8	0
Purple Sandpiper	Calidris maritima	0	0	0	0	0	0	0	0	0	2	0	0
Sandwich Tern	Sterna sandvicensis	30	12	22	2	0	0	0	0	0	2	8	12
Common Tern	Sterna hirundo	20	115	0	0	0	0	0	0	0	0	0	16

Table 4-8: Five Year Peak Monthly Counts of Ramsar, SPA, pSPA and SSSI Species at Redcar and Coatham Sands South

Table 4-9: Five Year Average Monthly Counts of Ramsar, SPA, pSPA and SSSI Species at Redcar and Coatham Sands South

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Shelduck	Tadorna tadorna	0	0	0	0	0	0	0	0	0	0	0	0
Teal	Anas crecca	0	0	0	0	0	0	0	0	0	0	0	0
Cormorant	Phalacrocorax carbo	3	2	3	12	6	2	7	2	1	6	1	1
Knot	Calidris canutus	0	10	0	6	1	0	0	0	0	5	0	0
Sanderling	Calidris alba	0	21	53	34	63	103	90	26	46	36	25	0
Redshank	Tringa totanus	0	0	0	0	29	66	73	63	82	14	0	0
Turnstone	Arenaria interpres	1	3	2	107	24	29	50	31	19	65	2	0
Purple Sandpiper	Calidris maritima	0	0	0	0	0	0	0	0	0	1	0	0
Sandwich Tern	Sterna sandvicensis	14	10	8	1	0	0	0	0	0	1	3	7
Common Tern	Sterna hirundo	6	25	0	0	0	0	0	0	0	0	0	3
Table 4-10: Five Year Peak Monthly Counts of Schedule 1 Species at Redcar and Coatham Sands South

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Common Scoter	Melanitta nigra	21	0	1	0	150	102	54	56	30	18	0	0
Velvet Scoter	Melanitta fusca	0	0	0	0	0	1	10	8	10	0	1	0
Red-throated Diver	Gavia stellata	0	0	0	2	1	1	6	0	1	0	0	0

Table 4-11: Five Year Average Monthly Counts of Schedule 1 Species at Redcar and Coatham Sands South

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Common Scoter	Melanitta nigra	21	0	0	0	31	57	30	14	7	8	0	0
Velvet Scoter	Melanitta fusca	0	0	0	0	0	1	6	2	4	0	0	0
Red-throated Diver	Gavia stellata	0	0	0	1	1	0	2	0	0	0	0	0

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Shelduck	Tadorna tadorna	2	2	0	0	0	0	0	2	4	11	8	4
Teal	Anas crecca	0	0	0	2	0	10	0	0	0	2	0	0
Lapwing	Vanellus vanellus	52	61	28	1	10	1	25	34	4	0	2	5
Redshank	Tringa totanus	0	0	3	110	77	85	175	180	71	35	0	0

Table 4-12: Five Year Peak Monthly Counts of Ramsar, SPA, pSPA and SSSI Species at Quarries and Lagoons

Table 4-13: Five Year Average Monthly Counts of Ramsar, SPA, pSPA and SSSI Species at Quarries and Lagoons

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Shelduck	Tadorna tadorna	0	0	0	0	0	0	0	1	1	6	4	1
Teal	Anas crecca	0	0	0	0	0	2	0	0	0	0	0	0
Lapwing	Vanellus vanellus	19	16	6	0	2	0	7	8	1	0	0	1
Redshank	Tringa totanus	0	0	1	31	26	17	58	61	20	7	0	0

Table 4-14: Five Year Peak Monthly Counts of Schedule 1 Species at Quarries and Lagoons (Average counts are zero for each month and therefore are not tabulated)

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Greenshank	Tringa nebularia	0	2	0	0	0	0	0	0	0	0	0	0

Species	Scientific Name	Jul	Aug	Sep	Oct	Νον	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Shelduck	Tadorna tadorna	4	2	0	0	0	0	3	2	4	6	6	13
Teal	Anas crecca	0	0	3	2	21	6	6	1	0	0	0	0
Cormorant	Phalacrocorax carbo	69	117	11	39	91	50	51	10	15	23	29	32
Ringed Plover	Charadrius hiaticula	11	30	21	0	0	2	0	16	0	6	130	23
Lapwing	Vanellus vanellus	10	150	2	47	320	740	700	350	22	0	0	1
Knot	Calidris canutus	0	27	28	30	550	146	64	240	246	36	0	0
Sanderling	Calidris alba	7	22	0	0	36	0	12	1	0	0	61	21
Redshank	Tringa totanus	16	77	105	90	155	214	170	65	35	73	3	0
Turnstone	Arenaria interpres	2	28	12	21	29	30	12	32	5	3	6	4
Sandwich Tern	Sterna sandvicensis	120	10	26	0	0	0	0	0	0	0	14	62
Common Tern	Sterna hirundo	8	41	9	0	0	0	0	0	0	0	0	6

Table 4-15: Five Year Peak Monthly Counts of Ramsar, SPA, pSPA and SSSI Species at Bran Sands North

Table 4-16: Five Year Average Monthly Counts of Ramsar, SPA, pSPA and SSSI Species at Bran Sands North

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Shelduck	Tadorna tadorna	1	0	0	0	0	0	1	1	1	2	4	3
Teal	Anas crecca	0	0	1	1	8	3	2	0	0	0	0	0
Cormorant	Phalacrocorax carbo	36	46	5	27	25	27	14	4	4	9	12	16
Ringed Plover	Charadrius hiaticula	2	8	4	0	0	1	0	4	0	1	51	5
Lapwing	Vanellus vanellus	2	30	0	17	198	498	164	196	4	0	0	0
Knot	Calidris canutus	0	5	6	22	128	42	40	75	86	9	0	0
Sanderling	Calidris alba	1	5	0	0	7	0	2	0	0	0	12	4
Redshank	Tringa totanus	8	50	55	56	124	84	77	43	18	52	1	0
Turnstone	Arenaria interpres	1	9	7	10	13	19	6	11	2	1	1	1
Sandwich Tern	Sterna sandvicensis	33	5	6	0	0	0	0	0	0	0	3	17
Common Tern	Sterna hirundo	3	18	3	0	0	0	0	0	0	0	0	2

Species	Scientific Name	Jul	Aug	Sep	Oct	Νον	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Common Scoter	Melanitta nigra	0	0	0	0	0	0	0	0	0	0	2	0
Red-throated Diver	Gavia stellata	0	0	0	1	0	2	1	0	0	0	0	0
Great Northern Diver	Gavia immer	0	0	0	0	0	0	0	1	1	0	0	0
Whimbrel	Numenius phaeopus	1	3	0	0	0	0	0	0	0	0	1	0

Table 4-17: Five Year Peak Monthly Counts of Schedule 1 Species at Bran Sands North

Table 4-18: Five Year Average Monthly Counts of Schedule 1 Species at Bran Sands North

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Common Scoter	Melanitta nigra	0	0	0	0	0	0	0	0	0	0	0	0
Red-throated Diver	Gavia stellata	0	0	0	0	0	1	0	0	0	0	0	0
Great Northern Diver	Gavia immer	0	0	0	0	0	0	0	0	0	0	0	0
Whimbrel	Numenius phaeopus	0	1	0	0	0	0	0	0	0	0	0	0

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Shelduck	Tadorna tadorna	29	29	27	24	61	43	113	124	118	86	67	44
Teal	Anas crecca	0	3	96	184	337	243	248	104	130	52	3	2
Shoveler	Spatula clypeata	0	0	0	0	0	0	0	0	0	2	0	0
Cormorant	Phalacrocorax carbo	43	112	59	61	53	28	67	95	44	17	19	21
Ringed Plover	Charadrius hiaticula	0	0	0	0	0	0	1	0	0	0	0	0
Lapwing	Vanellus vanellus	11	30	32	110	12	190	11	620	28	30	1	4
Knot	Calidris canutus	0	0	0	0	1	0	0	0	0	0	0	0
Redshank	Tringa totanus	27	34	73	120	115	190	180	190	160	105	4	35
Turnstone	Arenaria interpres	0	6	7	11	16	11	13	11	9	11	4	1
Sandwich Tern	Sterna sandvicensis	4	0	4	0	0	0	0	0	0	0	17	12
Common Tern	Sterna hirundo	22	20	30	0	0	0	0	0	0	0	17	14

Table 4-19: Five Year Peak Monthly Counts of Ramsar, SPA, pSPA and SSSI Species at Bran Sands South

Table 4-20: Five Year Average Monthly Counts of Ramsar, SPA, pSPA and SSSI Species at Bran Sands South

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Shelduck	Tadorna tadorna	15	11	12	12	25	21	42	49	76	46	39	27
Teal	Anas crecca	0	1	56	101	106	129	121	48	57	17	1	0
Shoveler	Spatula clypeata	0	0	0	0	0	0	0	0	0	0	0	0
Cormorant	Phalacrocorax carbo	29	60	48	35	34	17	37	46	23	7	11	10
Ringed Plover	Charadrius hiaticula	0	0	0	0	0	0	0	0	0	0	0	0
Lapwing	Vanellus vanellus	4	13	14	25	5	50	2	194	9	6	0	2
Knot	Calidris canutus	0	0	0	0	0	0	0	0	0	0	0	0
Redshank	Tringa totanus	8	26	41	84	96	102	99	98	60	35	2	7
Turnstone	Arenaria interpres	0	2	2	5	4	2	6	6	4	3	1	0
Sandwich Tern	Sterna sandvicensis	1	0	1	0	0	0	0	0	0	0	3	2
Common Tern	Sterna hirundo	8	6	6	0	0	0	0	0	0	0	4	7

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Scaup	Aythya marila	0	0	0	1	0	0	0	1	0	0	0	0
Common Scoter	Melanitta nigra	0	0	0	0	0	0	0	0	1	0	0	0
Red-throated Diver	Gavia stellata	0	0	0	0	0	2	2	1	0	0	0	0
Black-tailed Godwit	Limosa limosa	0	6	0	0	0	0	0	0	0	0	0	0
Greenshank	Tringa nebularia	0	3	1	1	1	0	0	0	0	0	0	0
Kingfisher	Alcedo atthis	0	0	0	1	1	0	0	0	0	0	0	0

Table 4-21: Five Year Peak Monthly Counts of Schedule 1 Species at Bran Sands South

Table 4-22: Five Year Average Monthly Counts of Schedule 1 Species at Bran Sands South

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Scaup	Aythya marila	0	0	0	0	0	0	0	0	0	0	0	0
Common Scoter	Melanitta nigra	0	0	0	0	0	0	0	0	0	0	0	0
Red-throated Diver	Gavia stellata	0	0	0	0	0	0	0	0	0	0	0	0
Black-tailed Godwit	Limosa limosa	0	1	0	0	0	0	0	0	0	0	0	0
Greenshank	Tringa nebularia	0	1	0	0	0	0	0	0	0	0	0	0
Kingfisher	Alcedo atthis	0	0	0	0	0	0	0	0	0	0	0	0

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Shelduck	Tadorna tadorna	0	0	0	0	0	0	3	2	6	4	4	0
Teal	Anas crecca	1	17	25	25	25	13	20	12	17	15	3	0
Shoveler	Spatula clypeata	0	1	1	6	13	2	2	2	9	0	0	0
Cormorant	Phalacrocorax carbo	1	2	1	4	4	8	4	5	7	3	0	0
Common Tern	Sterna hirundo	2	0	0	0	0	N/C	N/C	0	N/C	0	0	0
Ruff	Calidris pugnax	0	3	0	0	0	0	0	0	0	0	0	0

Table 4-23: Five Year Peak Monthly Counts of Ramsar, SPA, pSPA and SSSI Species at Coatham Marsh

Table 4-24: Five Year Average Monthly Counts of Ramsar, SPA, pSPA and SSSI Species at Coatham Marsh

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Shelduck	Tadorna tadorna	0	0	0	0	0	0	1	1	2	2	2	0
Teal	Anas crecca	0	8	7	13	11	6	14	8	10	12	1	0
Shoveler	Spatula clypeata	0	0	0	1	3	1	1	0	2	0	0	0
Cormorant	Phalacrocorax carbo	0	0	0	2	1	3	2	3	2	1	0	0
Common Tern	Sterna hirundo	1	0	0	0	0	N/C	N/C	0	N/C	0	0	0
Ruff	Calidris pugnax	0	1	0	0	0	0	0	0	0	0	0	0

Table 4-25: Five Year Peak Monthly Counts of Schedule 1 Species at Coatham Marsh (Average counts are zero for each month and therefore are not tabulated)

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Bittern	Botaurus stellaris	0	0	0	0	0	0	0	1	0	0	0	0
Kingfisher	Alcedo atthis	0	1	0	0	0	0	0	0	0	0	0	0

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	
Shelduck	Tadorna tadorna	0	0	0	0	0	2	3	2	2	2	4	1	
Teal	Anas crecca	0	37	17	38	68	160	183	68	68	40	0	0	
Shoveler	Spatula clypeata	2	5	8	16	14	8	20	25	8	17	1	2	
Cormorant	Phalacrocorax carbo	0	1	1	4	9	4	2	4	2	1	1	0	
Redshank	Tringa totanus	0	0	0	0	1	1	0	2	3	0	0	1	
Common Tern	Sterna hirundo	3	0	0	N/C	0	N/C	0	0	0	0	1	1	
Ruff	Calidris pugnax	0	5	1	0	0	0	0	0	0	0	0	0	

Table 4-26: Five Year Peak Monthly Counts of Ramsar, SPA, pSPA and SSSI Species at Haverton Hole North (N/C denotes no count for some species)

Table 4-27: Five Year Average Monthly Counts of Ramsar, SPA, pSPA and SSSI Species at Haverton Hole North N/C denotes no count for some species)

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Shelduck	Tadorna tadorna	0	0	0	0	0	1	2	1	0	1	2	0
Teal	Anas crecca	0	10	5	21	34	57	87	37	32	19	0	0
Shoveler	Spatula clypeata	1	2	2	11	8	5	7	9	5	4	0	1
Cormorant	Phalacrocorax carbo	0	1	0	2	2	2	1	3	0	0	0	0
Redshank	Tringa totanus	0	0	0	0	0	0	0	1	1	0	0	0
Common Tern	Sterna hirundo	2	0	0	N/C	0	N/C	0	0	0	0	1	1
Ruff	Calidris pugnax	0	1	0	0	0	0	0	0	0	0	0	0

Table 4-28: Five Year Peak Monthly Counts of Schedule 1 Species at Haverton Hole North

Species	Scientific Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Garganey	Spatula querquedula	0	2	0	0	0	0	0	0	0	0	1	1
Bittern	Botaurus stellaris	0	0	0	1	1	1	0	0	0	0	0	0
Black-tailed Godwit	Limosa limosa	0	1	3	2	1	0	0	0	0	0	18	4
Greenshank	Tringa nebularia	0	1	0	0	0	0	0	0	0	0	0	0

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Species Scientific Name Jul Aug Sep Oct Nov Mar Apr Dec Jan Feb May Jun Garganey Spatula querquedula Botaurus stellaris Bittern Black-tailed Godwit Limosa limosa Tringa nebularia Greenshank

Table 4-29: Five Year Average Monthly Counts of Schedule 1 Species at Haverton Hole North

4.1.13 The key species and the periods over which they were most abundant within each sector are summarised in Table 4-30. Note that the table is not a definitive list of the monthly occurrence of each species but it does provide indicative periods within which elevated numbers of each species have been recorded over a five-year period for each sector. This is based primarily on visual analysis of the average monthly counts with use of the peak counts where the means are ambiguous. Blank cells indicate where counts were either zero or close to zero. Schedule 1 birds were included only where their numbers consistently exceed one or two individuals. Those absent from the table include occasional records of bittern, kingfisher, greenshank, scaup, red-throated diver, great northern diver, garganey, common scoter, velvet scoter and whimbrel.

Table 4-30: Distribution within WeBS Sectors and Approximate Peak Periods for SPA, pSPA, Ramsar, SSSI and Schedule 1 Species

BTO WeBS Sector	Coatham Sands North	Redcar and Coatham Sands South	Quarries and Lagoons	Bran Sands North	Bran Sands South	Coatham Marsh	Haverton Hole North
Equivalent/ overlapping AECOM Count Sector	1	1-4	А, В			D, E	
Shelduck Tadorna tadorna	September	-	April-May	April-May	Year-round	March-May	December- May
Teal Anas crecca	-	-	December	November	September- April	August-April	Year-round, peaking October- April
Shoveler Spatula clypeata	-	-	-	-	-	October- November, March	Year-round, peaking October- April
Cormorant Phalacrocorax carbo	March- September	October- January	-	Year-round, peaking July-August and October- December	Year-round	December- March	October- February
Ringed plover Charadrius hiaticula	March- September	-	-	May	-	-	-
Knot Calidris canutus	September - February	August	-	November- February	-	-	-
Sanderling Calidris alba	Year round, peaking August– October and April- May	Year-round, peaking September-May	-	Year-round, peaking May	-	-	-
Redshank Tringa totanus	April and October- December	November- March	October- March	August-April	Year-round, peaking August-April	-	-
Lapwing Vanellus vanellus	-	-	Year- round, peaking July- August	Year-round, peaking November- February	Year-round, peaking October - February	-	-
Purple Sandpiper Calidris maritima	December - February	April	-	-	-	-	-
Ruff Calidris pugnax	-	-	-	-	-	August	August
Turnstone Arenaria interpres	Year-round peaking October- December	Year-round, peaking October- January	-	August- February	Year-round	-	-

BTO WeBS Sector	Coatham Sands North	Redcar and Coatham Sands South	Quarries and Lagoons	Bran Sands North	Bran Sands South	Coatham Marsh	Haverton Hole North
Equivalent/ overlapping AECOM Count Sector	1	1-4	А, В			D, E	
Little tern Sterna albifrons	July	July	-	-	-	-	-
Sandwich tern Sterna sandvicensis	June- August	June-August	-	June- September	May-June	-	-
Common tern Sterna hirundo	June- August	June-August	-	June- August	May- September	July	-
Purple Sandpiper Calidris maritima	November- February	November- February	-	-	-	-	
Black-tailed	-	-	-	-	-	-	May-June

godwit

Limosa limosa

4.2 Field Survey Data

Through-the-Tide and High Tide Counts

SPA qualifying species

- 4.2.1 Tables 4-31 4-41 summarise the peak counts, monthly total and annual counts of each species. Within each table, inland (High Tide) sectors are highlighted in red, while coastal (Intertidal) sectors are highlighted in blue and sectors that overlap the proposed development area are identified. Sectors for which only zero counts were recorded are omitted. Summary information regarding bird behaviour is provided as lettered codes: F (Foraging); (Loafing¹⁰); R (Roosting); P (Preening); and D (Displaying).
- 4.2.2 These tables should be viewed alongside Figures 6 16, which provide a visual summary of the count data to aid with interpretation of the observed distribution and numbers of each species. There is no table for knot because this species was not encountered during the surveys.
- 4.2.3 Some patterns of spatial and temporal distribution can be observed from the baseline data:
 - Cormorant (Table 4-31; Figure 6) was recorded exclusively in November and December, during which a peak count of 5 individuals was recorded for the entire Survey Area. It was distributed exclusively within inland count sectors and favoured the Steelhouse Pond, though it was occasionally present also within channels and water bodies within Coatham Marsh, Teardrop and at the southern end of the Teesside Works;
 - Lapwing (Table 4-32; Figure 7) was recorded in all months except December, January and April and exclusively within inland sectors. The majority of records were within one of the lagoons directly to the north of the SSI and terrestrial habitats within Teardrop;
 - Little tern (Table 4-33; Figure 8) was recorded in small numbers over a single intertidal survey in July and was exclusively associated with the intertidal habitats at the western end of the Survey Area, though the small number of sightings is not sufficient to determine a strong pattern of habitat use. Similarly Sandwich and common terns were recorded during summer and only within intertidal habitats but in much larger numbers, especially in the late part of the breeding season and post-breeding dispersal / migration periods when numbers were swollen by the presence of recently fledged juveniles;
 - Redshank (Table 4-34; Figure 9) was recorded in November only almost exclusively within intertidal habitats and one of the lagoons immediately north of the SSI, with only two individuals recorded elsewhere (Coatham Marsh);
 - Ringed plover (Table 4-35; Figure 10) was recorded twice only, in September and June, feeding in small numbers on the intertidal habitats of Coatham Sands;
 - Sanderling (Table 4-36; Figure 11) was recorded in all months except October, December, February, May and June, in modest numbers (the peak monthly total was 63 individuals) exclusively within intertidal habitats with a distribution bias towards the western end of the Survey Area;
 - Knot was not recorded on any of the surveys;
 - Sandwich tern (Table 4-37; Figure 12) was present on only two of the surveys (in May and July), when groups of birds were recorded loafing, roosting and preening on the intertidal habitats of Coatham Sands. July's surveys contributed the most significant records of this species, with peak counts overall of 172 birds;
 - Shelduck (Table 4-38; Figure 13) was recorded exclusively between April and June within Teardrop, where displaying adults were recorded, and to the west of SSI on a channel within the Teesside Works. The results of the breeding bird surveys confirmed breeding for this species within Teardrop. There were no wintering records for this species;

¹⁰ Loafing is defined as behaviour not connected with feeding or breeding. It is a form of resting behaviour, other than roosting. It can be observed as birds appearing to stand around idly and may enable them to digest food while minimising energy expenditure.

- There was no obvious pattern of shoveler presence (Table 4-39; Figure 14) with one individual on the Steelhouse Pond in August. There were no wintering records for this species;
- Teal (Table 4-40; Figure 15) was present within the Survey Area in all months except May, June and August. Occasional presence was recorded at one of the lagoon ponds within the Coatham dunes and the River Fleet. However regular presence in small numbers was recorded on the Steelhouse Pond, where peak numbers were recorded over the autumn and winter months (October – January); and
- Common tern (Table 4-41; Figure 16) was recorded only during September and July only within the intertidal habitats of Coatham Sands. The peak count of 21 occurred in September.

Table 4-31: Peak Monthly and Total Counts of Cormorant (Figure 6; red shading indicates high tide sectors; bold font indicates peak monthly total for sector; sectors with exclusively zero counts omitted)

AECOM	Overlapping	Overlap with Indicative	2017				2018								Total count for survey
Sector	WeBS Sector(s)	PDS	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	July	August	year
D2	Coatham Marsh		0	0	0	1 (F)	0	0	0	0	0	0	0	0	1
F	-	CO ₂ export corridor; Electricity corridor	0	0	0	1 (F)	0	0	0	0	0	0	0	0	1
н	-	Power station; Electricity corridor; Gas corridor	0	0	0	1 (L)	0	0	0	0	0	0	0	0	1
SHP1	-	-	0	1 (L)	0	2 (F)	0	1 (L)	0	0	0	0	0	0	4
Monthly Total			0	1	0	5	0	1	0	0	0	0	0	0	7

Table 4-32: Peak Monthly and Total Counts of Lapwing (Figure 7; red shading indicates high tide sectors; blue shading indicates intertidal sectors; bold font indicates peak monthly total for sector; sectors with exclusively zero counts omitted)

AECOM	Overlapping	Overlap with	2017				2018								Total count for survey
Sector	WeBS Sector(s)	Indicative PDS	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	July	August	year
A1	Quarries and Lagoons	CO ₂ export corridor	0	12 (L)	48 (L, R)	0	0	0	0	0	1 (L)	4 (R, F)	0	1 (F)	102
D	Coatham Marsh		0	0	0	0	0	0	0	0	0	0	0	16 (L, P)	16
F	-	CO ₂ export corridor; Electricity corridor	172 (F, P, L, R)	0	5 (R, L)	0	0	3 (L)	1 (L, R)	0	0	14 (R, L, F)	0	26 (F, L, P, R)	272
Monthly Total			221	12	89	0	0	3	1	0	1	18	0	45	390

Table 4-33: Peak Monthly and Total Counts of Little Tern (Figure 8; blue shading indicates intertidal sectors; bold font indicates peak monthly total for sector; sectors with exclusively zero counts omitted)

AECOM Sector	Overlapping	Overlap with	2017				2018								Total count for survey
	WeBS Sector(s)	Indicative PDS	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	July	August	year
1	Coatham Sands North; Redcar and Coatham Sands South	CO ₂ export corridor	0	0	0	0	0	0	0	0	0	0	4 (L, P)	0	4

Table 4-34: Peak Monthly and Total Counts of Redshank (Figure 9; red shading indicates high tide sectors; blue shading indicates intertidal sectors; bold font indicates peak monthly total for sector; sectors with exclusively zero counts omitted)

AECOM	COM Overlapping tor WeBS Sector(s)	Overlap with	2017				2018								Total count for survey
Sector	WeBS Sector(s)	Indicative PDS	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	July	August	year
1	Coatham Sands North; Redcar and Coatham Sands South	CO ₂ export corridor	0	0	9 (F)	0	0	0	0	0	0	0	0	0	13
2	Redcar and Coatham Sands South	CO ₂ export corridor	0	0	16 (F)	0	0	0	0	0	0	0	0	0	20
3	Redcar and Coatham Sands South	CO ₂ export corridor	0	0	2 (F)	0	0	0	0	0	0	0	0	0	2
4	Redcar and Coatham Sands South		0	0	4 (F)	0	0	0	0	0	0	0	0	0	4
A1	Quarries and Lagoons	CO ₂ export corridor	0	0	5 (F, R)	0	0	0	0	0	0	0	0	0	8
D1	Coatham Marsh		0	0	2 (F)	0	0	0	0	0	0	0	0	0	2
Monthly Total			0	0	49	0	0	0	0	0	0	0	0	0	49

Table 4-35: Peak Monthly and Total Counts of Ringed Plover (Figure 10; blue shading indicates intertidal sectors; bold font indicates peak monthly total for sector; sectors with exclusively zero counts omitted)

AECOM O Sector W	Overlapping	Overlap with	2017				2018								Total count for survey
Sector	WeBS Sector(s)	Indicative PDS	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	August	year
1	Coatham Sands North; Redcar and Coatham Sands South	CO ₂ export corridor	0	0	0	0	0	0	0	0	0	2 (F)	0	0	2
3	Redcar and Coatham Sands South	CO ₂ export corridor	2 (F)	0	0	0	0	0	0	0	0	0	0	0	2
Monthly Total			2	0	0	0	0	0	0	0	0	2	0	0	4

Table 4-36: Peak Monthly and Total Counts of Sanderling (Figure 11; blue shading indicates intertidal sectors; bold font indicates peak monthly total for sector; sectors with exclusively zero counts omitted)

AECOM C Sector V	Overlapping	Overlap with	2017				2018								Total count for survey
Sector	WeBS Sector(s)	Indicative PDS	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	July	August	year
1	Coatham Sands North; Redcar and Coatham Sands South	CO ₂ export corridor	0	0	0	0	18 (F)	0	0	11 (F)	0	0	63 (F)	12 (F)	120
2	Redcar and Coatham Sands South	CO ₂ export corridor	2 (F)	0	16 (F)	0	0	0	11 (F)	0	0	0	0	0	38
3	Redcar and Coatham Sands South	CO ₂ export corridor	1 (F)	0	3 (F)	0	0	0	6 (F)	0	0	0	0	0	12
4	Redcar and Coatham Sands South		0	0	3 (F)	0	0	0	0	0	0	0	0	0	3
Monthly Total			3	0	33	0	30	0	17	11	0	0	63	16	173

Table 4-37: Peak Monthly and Total Counts of Sandwich Tern (Figure 12; blue shading indicates intertidal sectors; bold font indicates peak monthly total for sector; sectors with exclusively zero counts omitted)

AECOM Ove Sector Wel	Overlapping	Overlap with	2017				2018								Total count for survey
Sector	WeBS Sector(s)	Indicative PDS	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	July	August	year
1	Coatham Sands North; Redcar and Coatham Sands South	CO ₂ export corridor	0	0	0	0	0	0	0	0	0	0	42 (L, P, R)	0	75
2	Redcar and Coatham Sands South	CO ₂ export corridor	0	0	0	0	0	0	0	0	0	0	74 (P, R)	0	97
3	Redcar and Coatham Sands South	CO ₂ export corridor	0	0	0	0	0	0	0	0	3 (L)	0	0	0	3
Monthly Total			0	0	0	0	0	0	0	0	3	0	172	0	175

Table 4-38: Peak Monthly and Total Counts of Shelduck (Figure 13; red shading indicates high tide sectors; bold font indicates peak monthly total for sector; sectors with exclusively zero counts omitted)

AECOM	COM Overlapping WeBS Sector(s)	Overlap with Indicative	2017				2018								Total count for survey
Sector		PDS	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	July	August	year
F	-	CO ₂ export corridor; Electricity corridor	0	0	0	0	0	0	0	4 (D)	2 (L)	0	0	0	6
J	-		0	0	0	0	0	0	0	0	0	3 (L)	0	0	3
Monthly Total			0	0	0	0	0	0	0	4	2	3	0	0	9

Table 4-39: Peak Monthly and Total Counts of Shoveler (Figure 14; red shading indicates high tide sectors; bold font indicates peak monthly total for sector; sectors with exclusively zero counts omitted)

AECOM We Sector Sec	Overlapping	Overlap with Indicative	2017				2018								Total count for survey
	Sector(s)	PDS	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	July	August	year
SHP1	-	-	0	0	0	0	0	0	0	0	0	0	0	1 (L)	1

Table 4-40: Peak Monthly and Total Counts of Teal (Figure 15; red shading indicates high tide sectors; bold font indicates peak monthly total for sector; sectors with exclusively zero counts omitted)

AECOM	ECOM Overlapping ector WeBS	Overlap with Indicative	2017				2018								Total count for survey
Sector	Sector(s)	PDS	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	July	August	year
A1	Quarries and Lagoons	CO ₂ export corridor	1 (F)	1 (F)	0	0	0	0	0	0	0	0	0	0	2
F	-	CO ₂ export corridor; Electricity corridor	0	5 (F)	0	0	0	0	0	0	0	0	0	0	5
SHP1	-	-	0	0	5 (F, R, L)	6 (L)	8 (F)	4 (R)	3 (L)	1 (L)	0	0	3 (F)	0	34
Monthly Total			1	6	8	6	8	4	4	1	0	0	3	0	41

Table 4-41: Peak Monthly and Total Counts of Common Tern (Figure 16; blue shading indicates intertidal sectors; bold font indicates peak monthly total for sector; sectors with exclusively zero counts omitted)

AECOM Over Sector WeB	Overlapping	Overlap with Indicative	2017				2018								Total count for survey
Sector	WeBS Sector(s)	PDS	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	July	August	year
1	Coatham Sands North; Redcar and Coatham Sands South	CO ₂ export corridor	0	0	0	0	0	0	0	0	0	0	4 (L)	0	4
3	Redcar and Coatham Sands South	CO ₂ export corridor	21 (L)	0	0	0	0	0	0	0	0	0	0	0	21
4	Redcar and Coatham Sands South		1 (L, P)	0	0	0	0	0	0	0	0	0	0	0	2
Monthly Total			23	0	0	0	0	0	0	0	0	0	4	0	27

Non-SPA Qualifying Species

- 4.2.4 Table 4-42 summarises the temporal and spatial distribution of non-SPA qualifying species recorded during the surveys, which included a number of gulls, ducks, waders, greylag goose, mute swan, herons, moorhen, coot and water rail.
- 4.2.5 Gulls were represented, in order of maximum peak count, by herring gull (671), black headed gull (137), great black-backed gull (53), common gull (18) and lesser black-backed gull (1). Peak gull counts were generally in winter. Herring and black-headed gulls were most widespread, occurring on inland (high tide) sectors more often than the other species, which showed a more strictly coastal distribution. Herring gull was recorded on nearly every survey, lesser black-backed gull was recorded on only 2 of the surveys and the other species of gull were recorded on between 11 and 13 of the surveys.
- 4.2.6 A peak count of 128 gadwall at Steelhouse Pond in October represents the key observation of this species. Elsewhere it was occasionally counted in small numbers. Similarly peak counts of mallard (24 in August), tufted duck (11 in April) and wigeon (26 in September) were recorded at Steelhouse Pond with occasional presence in smaller numbers elsewhere.
- 4.2.7 Waders included curlew, green sandpiper, little ringed plover, oystercatcher, snipe and wood sandpiper. Curlew was the most widespread and frequently recorded species, being commonly observed within or close to Coatham Marsh, Teardrop and SSI (high tide sectors D L). It was recorded on 14 surveys and the highest peak count was 12 in Sector L. Peak counts were mostly recorded in the post-breeding period from August October. Other waders were mostly occasional and in small numbers. Little ringed plover, green sandpiper and wood sandpiper, all Schedule 1 species, were recorded foraging in small numbers at one of the pools in Sector A. None of these species showed any behaviour indicative of breeding.
- 4.2.8 Oystercatcher was recorded in larger numbers (maximum peak counts 66 in March) on the coastal intertidal sectors between October and March and occasionally on inland sectors in small numbers. This species occurred quite frequently. Snipe was an occasional species that occurred close to the lagoons in Sector A and within Coatham Marsh (Sector E2) in autumn.
- 4.2.9 Greylag geese and mute swans were present in small numbers, the Steelhouse Pond and the Pools within Coatham Marsh appearing to be the most important locations for these species. Canada goose was widespread and fairly numerous but the maximum peak count of 39 was at Steelhouse Pond.
- 4.2.10 Grey heron was present consistently and in small numbers in sectors with open waters including A, D and the Steelhouse Pond, though numbers were small (maximum peak count 3). Little egret showed a similar distribution but was recorded on only 2 surveys and in very low numbers.
- 4.2.11 Other species included small numbers of little grebe, coot and water rail on pools and lagoons within Coatham Marshes and Steelhouse Pond. Moorhen was widespread and frequent on pools and lagoons within Sectors A, D and on the Steelhouse Pond, with some records within SSI and Teardrop. The peak count was 18 at a pool within Coatham Marsh. It was recorded on every survey.
- 4.2.12 Species with typically coastal or offshore distribution included 2 shag, which occurred at Steelhouse Pond in December; and razorbill (*Alca torda*), which was recorded offshore within two of the intertidal sectors.
- 4.2.13 Species with distributions overlapping the SSI and Teardrop areas of the PDS include black-headed gull, Canada goose, curlew, gadwall, great black-backed gull, grey heron, herring gull, lesser black-backed gull, little egret, mallard and moorhen. Steelhouse Pond was clearly an important location for ducks, geese and swans. Coatham Marshes and the lagoons within the Coatham Sand Dunes were important also for some ducks, waders and herons. The intertidal areas surveyed clearly were of greatest importance for gulls and waders.

Table 4-42: Peak counts of non-SPA species by sector, and month of peak count (number of surveys = 21; maximum peak count in bold font; blue shading denotes intertidal sectors; red shading denotes high tide sectors)

AECOM Count Sector	1	2	3	4	Α	A1	A2	A3	A4	В	С	D	D1	D2	E	E1	E2	F	G	н	1	J	К	L.	SHP1	
Equivalent WeBS Sector	Coath only) Coath	nam Sa ; Redca nam Sa	nds No ar and nds So	orth (1 outh	Quar	ries and	d Lago	ons				Coath	iam Ma	rsh												Freq.
Overlapping indicative development?	1	1	1		1	1	1	1	1	1					1			1	1	1	1		1	1		
Black-Headed Gull Chroicocephalus ridibundus	137 (Jan)	41 (Aug)	43 (Aug)	72 (Sep)	0	26 (Jun)	0	0	0	0	0	1 (Nov)	7 (Oct)	0	0	0	0	0	0	1 (Aug)	0	0	0	9 (Aug)	0	13
Canada Goose <i>Branta canadensi</i> s	0	0	0	0	0	2 (Feb)	0	0	0	0	0	0	0	0	0	0	0	0	0	4 (Aug)	2 (Apr)	7 (May)	9 (Jul)) 0	39 (Oct)	14
Common Gull Larus canus	18 (Jan)	9 (Jan)	1 (Sep)	3 (Jan)	0	0	0	0	0	0	0	0	1 (Nov)	0	0	0	0	0	0	0	0	0	0	0	0	11
Coot Fulica atra	0	0	0	0	0	0	0	0	0	0	0	0	2 (May)	0	0	0	0	0	0	0	0	0	0	0	3 (Aug)	5
Curlew Numenius arquata	7 (Sep)	0	0	0	0	0	0	0	0	0	0	0	0	0	11 (Oct)	0	0	11 (Jul)	0	1 (Aug)	7 (Mar)	0	0	12 (Oct)	0	14
Gadwall Mareca strepera	0	0	0	0	2 (Apr)	0	0	0	0	0	0	0	0	6 (Jun)	0	0	0	2 (Feb)	0	0	0	0	1 (Oct, Dec, Feb)	0	128 (Oct)	16
Great Black-Backed Gull <i>Larus marinus</i>	53 (Oct)	6 (Jul)	7 (Aug)	3 (Aug)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9 (May)	0	0	0	12
Green Sandpiper Tringa ochropus	0	0	0	0	0	5 (Jul)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Grey Heron Ardea cinerea	0	0	0	0	0	3 (Aug)	0	0	0	0	0	0	1 (Aug)	1 (Sep)	0	1 (Nov)	0	1 (Feb, May)	0	0	0	0	1 (Dec)	0	3 (Apr)	16
Greylag Goose Anser anser	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 (Apr)	1
Herring Gull Larus argentatus	671 (Mar)	152 (Apr)	50 (Apr)	17 (Jul)	0	3 (Jun)	0	0	0	0	0	0	0	0	0	0	0	2 (Jan)	0	2 (Mar)	5 (Apr)	110 (Mar)	12 (Jun)	9 (Apr)	0	19
Lesser Black-Backed	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2

AECOM Count Sector	1	2	3	4	Α	A1	A2	A3	A 4	В	С	D	D1	D2	Е	E1	E2	F	G	н	1	J	K	L	SHP1	
Equivalent WeBS Sector	Coath only); Coath	nam Sa ; Redca nam Sa	nds No ir and nds So	orth (1 outh	Quar	ries and	Lago	ons				Coath	am Ma	rsh												Freq.
Overlapping indicative development?	1	1	1		1	5	1	1	1	1					1			1	1	1	1		1	1		
Gull Larus fuscus		(May)																				(Apr)				
Little Egret Egretta garzetta	0	0	0	0	0	1 (Sep, Jul)	0	0	0	0	0	0	1 (Oct)	0	0	0	0	0	2 (Oct)	0	0	0	0	0	0	3
Little Grebe Tachybaptus ruficollis	0	0	0	0	0	0	0	0	0	0	0	0	0	1 (Nov, Dec)	0	1 (Nov, Aug)	0	0	0	0	0	0	0	0	2 (Oct, Jul)	10
Little Ringed Plover Charadrius dubius	0	0	0	0	0	2 (Jun)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Mallard Anas platyrhynchos	0	0	0	0	0	3 (Sep, Nov)	0	0	0	0	0	0	8 (Oct)	2 (Dec)	0	2 (Apr)	0	6 (Sep)	1 (Nov)	0	0	0	0	0	24 (Aug)	17
Mandarin Duck <i>Aix galericulata</i>	0	0	0	0	0	0	0	0	0	0	0	1 (Apr)	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Moorhen Gallinula chloropus	0	0	0	0	0	5 (Sep, Oct, Nov, Jun)	0	0	0	0	0	2 (Apr)	2 (Mar)	18 (Nov)	0	7 (Dec)	3 (Aug)	5 (Dec)	1 (Jan)	1 (Sep, Jul)	1 (Nov)	0	2 (Apr)	0	16 (Aug)	21
Mute Swan Cygnus olor	0	0	0	0	0	0	0	0	0	0	0	2 (Dec)	0	3 (Aug)	0	2 (Sep, Oct)	0	0	0	0	0	0	0	0	4 (Oct)	13
Oystercatcher Haematopus ostralegus	66 (Mar)	11 (Oct)	25 (Jan)	2 (Jan)	0	0	0	0	0	0	0	3 (Feb)	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Pochard Aythya ferina	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 (Dec)	1
Razorbill <i>Alca torda</i>	2 (Sep)	3 (Oct)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Shag Phalacrocorax aristotellis	0 s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2 (Dec)	1
Snipe	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2

Baseline Ornithology Report

Baseline	Ornithology	Report
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AECOM Count Sector	1	2	3	4	Α	A1	A2	A3	A4	В	С	D	D1	D2	Е	E1	E2	F	G	н	1	J	K	L	SHP1	
Equivalent WeBS Sector	Coat only) Coat	ham S ; Redo ham S	ands N ar and ands S	orth (1 outh	Quar	ries an	d Lago	ons				Coath	iam Ma	arsh												Freq.
Overlapping indicative development?	1	1	1		1	1	1	1	1	1					1			1	1	1	1		1	1		
Gallinago gallinago						(Oct)											(Aug))								
Tufted Duck <i>Aythya fuligula</i>	0	0	0	0	1 (Apr)	0	0	0	0	0	0	0	0	4 (Apr)	0	0	0	2 (May	0 ′)	0	0	0	0	0	11 (Apr)	10
Water Rail <i>Rallus aquati</i> cus	0	0	0	0	0	0	0	0	0	0	0	1 (Sep, Apr)	0	1 (Nov)	0	0	1 (Apr)	0	0	0	0	0	0	0	0	3
Wigeon <i>Mareca penelope</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	4 (Sep)	0	0	0	0	0	0	0	0	0	0	26 (Sep)	4
Wood Sandpiper Tringa glareola	0	0	0	0	0	1 (Jul) 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Breeding Birds

- 4.2.14 Table 4-44 summarises the number of breeding "units"¹¹ of each species, the number of non-breeding species and conservation status of each species recorded during the CBC surveys, for the entire Survey Area and for each sub-section of the Survey Area. Forty-one breeding species were recorded, of which 7 are Red Listed, 8 are Amber Listed and 1 is of local priority for the preparation of action plans in the Tees Valley (equivalent to LBAP status). There were no breeding Annex 1 or Schedule 1 species recorded. Birds were distributed throughout the semi-natural habitats within Teardrop, Steelhouse Loop, Coatham Sands and both substation survey areas. No breeding birds were recorded within the SSI.
- 4.2.15 Twenty-five non-breeding species were also recorded, the majority of which were either present but showed no signs of breeding, or were recorded only in flight across the Survey Area. Among these are 3 Schedule 1 species (barn owl, marsh harrier, whimbrel); 3 birds included on Annex 1 and/or the Rare Breeding Birds Panel (RBBP) breeding lists (little egret, marsh harrier and whimbrel); and 10 species that are otherwise threatened, declining or vulnerable as per their inclusion on one or more of the RSPB Red and Amber Lists, the LBAP, the IUCN European Red List and the IUCB Global Red List. Skylark, linnet and reed bunting all of which bred within SSI/Teardrop and Coatham Sands survey areas are listed as interest features of Teesmouth NNR, however none of the other species recorded during the CBC surveys are listed as qualifying / notified features of any of the statutory designated sites identified in Table 4-1.
- 4.2.16 A barn owl roost was present within a small red brick building containing a barn owl box at approximate NGR NZ5717 2450, which lies within the Teardrop area at the western end of the River Fleet channel. The building is accessible via an open doorway on one side but is otherwise sheltered from the elements and is predominantly dark inside. An individual barn owl was recorded flying over Coatham Sands during one of the surveys and this is likely to have originated from the roost site recorded. Future breeding at this location is possible.
- 4.2.17 There are few identifiable patterns to the outcome of the breeding bird surveys. Breeding birds were generally distributed as would be expected according to their habitat preferences, and larger numbers of breeding birds were identified in areas with larger expanses and / or diversity of semi-natural habitats. Wetland birds were almost exclusively identified within Survey Areas containing coastal or other wetland habitats (SSI / Teardrop, Steelhouse Loop and Coatham Sands). Breeding skylark was particularly numerous within Coatham Sands, which contains large expanses of relatively undisturbed open habitat that are potentially attractive to ground-nesting birds.

¹¹ Population units i.e. breeding territories or pairs are the standard units used by Musgrove *et al.* (2013)

Table 4-43: Breeding birds Recorded Within the Survey Area (species listed in systematic order following the British Ornithologist's Union: McInerny et al., 2018)

Common Name	Scientific Name	Schedule 1 species	Rare Breeding Birds	LBAP Species	European Red List	Global Red List	Annex 1 Species	SSI Teardrop	Steelhouse Loop	Coatham Sands & Gare Road	Saltholme Substation	Lackenby Substation	TOTALS	MAIN BREEDING HABITAT RECORDED
Canada goose	Branta canadensis								1 pair				1 pair	Steelhouse Lake/margins
Mute swan	Cygnus olor								1 adult				0	-
Shelduck	Tadorna tadorna			т				1 pair		1 pair			2 pairs	Pools/ground vegetation
Gadwall	Mareca strepera							1 pair	2 pairs	1 pair			4 pairs	Steelhouse Lake/The Fleet
Mallard	Anas platyrhynchos							4 pairs	2 pairs	1 pair			7 pairs	Steelhouse Lake/The Fleet
Tufted duck	Aythya fuligula								1 pair				1 pair	Steelhouse Lake
Red – legged partridge	Alectoris rufa							1 territory					1 territory	Grassland/scrub
Pheasant	Phasianus colchicus							2 breeding fem.	1 breeding fem.	2 breeding fem.	1 breeding fem.		6 breeding fem.	Grassland/scrub
Little grebe	Tachybaptus ruficollis								1 pair				1 pair	Steelhouse Lake
Grey heron	Ardea cinerea							Present		Present			0	-
Little egret	Egretta garzetta		R				A1			Present			0	-
Marsh Harrier	Circus aeruginosus	1	R				A1				1 male overflying		0	
Moorhen	Gallinula chloropus								1 pair				1 pair	Steelhouse Lake
Coot	Fulica atra				NT				2 territories	1 territory	1 territory		4 territories	Steelhouse Lake/The Fleet
Lapwing	Vanellus vanellus				VU	NT		Present		Present			0	-
Whimbrel	Numenius phaeopus	1	R					Present		Present			0	-

Common Name	Scientific Name	Schedule 1 species	Rare Breeding Birds	LBAP Species	European Red List	Global Red List	Annex 1 Species	SSI Teardrop	Steelhouse Loop	Coatham Sands & Gare Road	Saltholme Substation	Lackenby Substation	TOTALS	MAIN BREEDING HABITAT RECORDED
Curlew	Numenius arquata				VU	NT		Present		Present			0	-
Black – headed gull	Chroicocephalus ridibundus							Present		Present	Present		0	-
Herring gull	Larus argentatus				NT			Present		Present	Present		0	-
Feral pigeon	Columba livia							Present					0	-
Stock dove	Columba oenas				Present					0	-			
Wood pigeon	Columba palumbus				3 pairs	6 pairs		2 pairs	3 pairs	14 pairs	Trees/scrub			
Collared dove	Streptopelia decaocto											2 pairs	2 pairs	Residential housing
Cuckoo	Cuculus canorus										1 pair		1 pair	Trees/scrub
Barn owl	Tyto alba	1						1 roosting		1 overflying			0	-
Swift	Apus apus			т							Present	Present	0	-
Great spotted woodpecker	Dendrocopos major							Present					0	-
Kestrel	Falco tinnunculus							Present		Present	Present		0	-
Jay	Garrulus glandarius								1 territory				1 territory	Trees/scrub
Magpie	Pica pica								1 territory	2 territories	1 territory	2 territories	6 territories	Trees/scrub
Jackdaw	Corvus monedula							Present	Present	Present		Present	0	-
Rook	Corvus frugilegus								Present				0	-
Carrion crow	Corvus corone								1 territory	1 territory		1 territory	3 territories	Trees/scrub
Blue tit	Cyanistes caeruleus								2 territories			2 territories	4 territories	Trees/scrub
Great tit	Parus major								3 territories			2 territories	5 territories	Trees/scrub

Common Name	Scientific Name	Schedule 1 species	Rare Breeding Birds	LBAP Species	European Red List	Global Red List	Annex 1 Species	SSI Teardrop	Steelhouse Loop	Coatham Sands & Gare Road	Saltholme Substation	Lackenby Substation	TOTALS	MAIN BREEDING HABITAT RECORDED
Skylark	Alauda arvensis							5 territories		17 territories			22 territories	Grassland/dunes
Sand martin	Riparia riparia							Overflying		Overflying			0	-
Swallow	Hirundo rustica							Present	Present	Present		Present	0	-
House martin	Delichon urbicum							Present	Present			Present	0	-
Long-tailed tit	Aegithalos caudatus								1 territory			1 territory	2 territories	Trees/scrub
Willow warbler	Phylloscopus trochilus							1 territory					1 territory	Trees/scrub
Chiffchaff	Phylloscopus collybita							2 territories	1 territory				1 territory	Trees/scrub
Sedge warbler	Acrocephalus schoenobaenus									7 territories			7 territories	Scrub/reed-bed
Reed warbler	Acrocephalus scirpaceus									4 pairs			4 pairs	Reed-bed
Blackcap	Sylvia atricapilla								1 territory			1 territory	2 territories	Trees/scrub
Lesser whitethroat	Sylvia curruca							Present					0	-
Whitethroat	Sylvia communis							3 territories	1 territory	10 territories			14 territories	Scrub
Wren	Troglodytes troglodytes							2 territories	5 territories	3 territories	1 territory		11 territories	Scrub
Starling	Sturnus vulgaris											2 pairs	2 pairs	Residential housing
Blackbird	Turdus merula							2 pairs	2 pairs	2 pairs		7 pairs	13 pairs	Trees/scrub
Song thrush	Turdus philomelos							1 territory		1 territory		1 territory	3 territories	Trees/scrub
Mistle thrush	Turdus viscivorus							1 territory					1 territory	Trees
Robin	Erithacus rubecula								3 territories			4 territories	7 territories	Trees/scrub
Wheatear	Oenanthe oenanthe							Present		Present			0	-

Common Name	Scientific Name	Schedule 1 species	Rare Breeding Birds	LBAP Species	European Red List	Global Red List	Annex 1 Species	SSI Teardrop	Steelhouse Loop	Coatham Sands & Gare Road	Saltholme Substation	Lackenby Substation	TOTALS	MAIN BREEDING HABITAT RECORDED
House sparrow	Passer domesticus											8 pairs	8 pairs	Residential housing
Dunnock	Prunella modularis							2 territories		3 territories		2 territories	7 territories	Scrub
Pied wagtail	Motacilla alba									Present			0	-
Meadow pipit	Anthus pratensis				NT	NT		2 pairs		10 pairs			12 pairs	Grassland/dunes
Chaffinch	Fringilla coelebs								2 territories		1 territory	2 territories	5 territories	Trees
Bullfinch	Pyrrhula pyrrhula								1 territory				1 territory	Trees/scrub
Greenfinch	Chloris chloris											1 pair	1 pair	Trees/scrub
Linnet	Linaria cannabina							3 territories		4 territories			7 territories	Scrub
Lesser redpoll	Acanthis cabaret								Present	2 overflying			0	-
Goldfinch	Carduelis carduelis							1 pair	3 pairs	1 pair	1 pair	3 pairs	9 pairs	Trees/scrub
Siskin	Spinus spinus							1 overflying					0	-
Reed bunting	Emberiza schoeniclus							1 territory		10 territories			11 territories	Reed-bed/scrub

	SSI Teardrop	Steelhouse Loop	Coatham Sands & Gare Road	Saltholme Sub- station	Lackenby Sub-station	TOTALS
TOTAL NUMBER OF NON-BREEDING BIRD SPECIES RECORDED	18	5	15	5	4	25
TOTAL NUMBER OF BREEDING BIRD SPECIES RECORDED ¹	19	24	19	8	17	41
BoCC4 Red Listed Species of Conservation Concern	4	0	3	1	3	7
BoCC4 Amber Listed Species of Conservation Concern	7	3	6	0	1	8
BoCC4 Green Listed Species (not currently considered of conservation concern)	6	19	9	6	13	23

	SSI Teardrop	Steelhouse Loop	Coatham Sands & Gare Road	Saltholme Sub- station	Lackenby Sub-station	TOTALS
Species Not Assessed by BoCC4	2	2	1	1	0	3
Protected Species Listed on Schedule 1 of the Wildlife & Countryside Act 1981 (as amended)	0	0	0	0	0	0
Species considered by the Rare Breeding Birds Panel (RBBP) (UK): R = Regular Breeding Birds, O = Occasional Breeding Birds, C = Colonising Species, P = Potential Breeding Birds	0	0	0	0	0	0
Species identified being of local priority for the preparation of action plans in the Tees Valley. (Tees Valley Biodiversity Partnership, 2012)	1	0	1	0	0	1
International Union for Conservation of Nature (IUCN) European Red List (2015): VU = Vulnerable (Globally Threatened), NT = Near Threatened, (all other species = Least Concern)	1	1	1	0	0	2
IUCN Global Red List: VU = Vulnerable (Globally Threatened), NT = Near Threatened, (all other species = Least Concern)	1	0	1	0	0	1
Species Listed in Annex 1 of the European Union (EU) Wild Birds Directive 2009 (A1)	0	0	0	0	0	0

¹ Totals shown against conservation status exclude non-breeding species

5. Conclusions and Recommendations

- 5.1.1 The land occupied by the indicative PDS lies between a number of sites designated at statutory level for their populations of wetland birds. Key amongst these are Teesmouth and Cleveland Coast SPA; Teesmouth and Cleveland Coast Ramsar site; Teesmouth and Cleveland Coast pSPA and Ramsar Extension; and their component SSSIs. The specific reasons for designation vary by site and by season, therefore there may be ornithological constraints to the proposed development, associated with the designated sites, at any time of year depending on the species present within the zone of influence of the proposed development and their habitat use both within and beyond the boundaries of the site designations. Detailed analysis of the baseline data presented in this report is likely to be required in order to determine whether or not a functional link or links exist between designated and non-designated land and what the nature, severity and mechanism(s) of any impact(s) may be on birds associated with the designated sites.
- 5.1.2 Regardless of the presence or otherwise of a functional link, there is also the possibility that the construction and operation of the proposed development could directly affect the interest features within the designated sites, irrespective of whether or not development activity actually occurs within the designated site boundaries.
- 5.1.3 The baseline data confirm the expectation that, in in the immediate vicinity of the proposed development, the largest and most regular occurrences of SPA and Ramsar birds occur within the coastal habitats to the north and west and especially within the mouth of the River Tees, around Bran Sands, and north-western Coatham Sands as far as South Gare. Here, BTO's WeBS data recorded the highest regular counts of teal, little tern, sandwich tern, common tern, redshank, knot, shelduck, shoveler and SSSI species such as turnstone and lapwing, with smaller numbers of some of these species occurring less frequently within and around the pools of the "Quarries and Lagoons" sector immediately to the north of the proposed development and Coatham Marsh to the east. All of these sectors lie entirely or partially within the SPA, Ramsar and pSPA.
- 5.1.4 AECOM count data present a similar pattern of occurrence but lower numbers for most species, with observations of relatively small numbers of terns, sanderling, redshank and cormorant mostly on coastal (intertidal) sectors and very small numbers of species such as redshank, shelduck, cormorant and teal occurring further inland, mostly within the AECOM count sectors that map closely to the "Quarries and Lagoons" WeBS sector. The only species with large counts inland during AECOM's surveys was lapwing, which occurred more regularly and in relatively large numbers within the sand dune lagoons immediately north of the proposed development and the grasslands to the east of it.
- 5.1.5 Detailed interrogation of the baseline data will enable patterns of habitat use to be determined and the relationships between them and SPA / Ramsar / SSSI birds such that the potential impacts of the proposed development can be assessed fully. However initial analysis suggests that the key areas sensitive to the proposed development are likely to include the open grasslands to the east of the electricity connection corridor and CO₂ export corridor, plus the areas that lie directly within the CO₂ export corridor.
- 5.1.6 The baseline surveys have also recorded an assemblage of terrestrial breeding birds within and immediately adjacent to the proposed development area that will need to be given detailed consideration when assessing the potential impacts of the proposed development. Nesting was confirmed for a number of species of conservation concern. Notable among these was the presence of roosting barn owl using a barn owl box inside a small brick building within the Teardrop. This species was also recorded hunting over the open grassland of Coatham Sands to the north. Given the proximity of suitable and (relatively) undisturbed breeding habitat and feeding resources, there is a possibility that barn owls could breed at this location. Since barn owl is a Schedule 1 bird afforded enhanced protection under domestic legislation (see Section 2 and Appendix A) this would be a key constraint requiring the implementation of measures to ensure that no disturbance of breeding adults or their dependent young occurs during construction and / or operation of the proposed scheme. Such

measures would be over and above those required to address the potential adverse impacts on other terrestrial breeding species.

- 5.1.7 Specific impacts will need to be identified and assessed following the completion of the concept design stage of the proposed development. It is anticipated that this will be an iterative process informed by the ornithological baseline presented in this report and in consultation with key stakeholders, principally Natural England and the Local Planning Authority (LPA).
- 5.1.8 Without access to detailed development designs it is not possible to determine what the specific impacts of the proposed development would be, or their severity, however it is possible to make some informed observations regarding the types of impact that could occur. During construction, the following types of impact mechanism can serve to disturb birds, disrupt their normal behaviours and / or reduce the availability of suitable habitat for activities such as feeding and roosting:
 - Noise and vibration form machinery, heavy plant and construction operations (such as hammer piling);
 - Artificial lighting;
 - Vehicle and staff movements;
 - Pollution (such as through spills of oils and vehicle fuel); and
 - Temporary habitat loss and damage to habitats during site clearance and construction.
- 5.1.9 Similar impacts can occur during operation of a proposed development, including (but not limited to):
 - Visual impact of the proposed infrastructure;
 - Artificial lighting;
 - Permanent habitat loss through land take for the proposed infrastructure;
 - Noise and vibration; and
 - Vehicle and staff movements.
- 5.1.10 The NPPF and local planning policy (summarised in Section 2 of this report) specify requirements for the protection of features of importance for biodiversity. Planning policy is a material consideration when determining planning applications. Compliance with planning policy requires that the proposed development considers and engages the following mitigation hierarchy where there is potential for impacts on relevant ecological receptors:
 - 1. Avoid features where possible;
 - 2. Minimise impact by design, method of working or other measures (mitigation) e.g. by enhancing existing features; and
 - Compensate for significant residual impacts, e.g. by providing suitable habitats elsewhere (whether in the control of OCGI or otherwise legally enforceable through planning condition or Section 106 agreement).
- 5.1.11 This hierarchy requires the highest level to be applied where possible. Only where this cannot reasonably be adopted should lower levels be considered. The rationale for the proposed mitigation and / or compensation should be provided with planning applications, including sufficient detail to show that these measures are feasible and would be provided.
- 5.1.12 In pursuance of the objective within the NPPF of providing net gains in biodiversity where possible, consideration will be given to the scope for enhancement as part of the proposed development. This should represent biodiversity gain over and above that achieved through mitigation and compensation. Enhancement could be achieved on and / or off the proposed development site.
- 5.1.13 In order to minimise the ornithological impacts of the proposals and specifically to minimise or avoid impacts on the designated sites, the design and implementation of the proposals will aim to avoid adverse impacts wherever possible. Some general principles that can be adopted to help achieve this goal include (but are not limited to):
 - Minimising the development footprint;

- Utilising the best available techniques to minimise the disturbance from noise and lighting during construction;
- Adopting soft piling techniques (such as screw piling rather than hammer piling), where this is necessary;
- Routing connection corridors through the least sensitive habitats and through areas identified as being of minimal interest for the ornithological features of the designated sites;
- Timing of the site clearance and construction phases to avoid critical periods, such as the breeding season for terrestrial breeding birds or the key seasons for species identified in the designated sites information;
- Not working during extreme high tides and inclement weather when wetland birds may be more likely to seek refuge at inland roost sites vulnerable to disturbance;
- The use of visual and acoustic barriers to lessen disturbance and visual intrusion.
- 5.1.14 Further measures may be required to meet the requirements of the NPPF as set out above.
- 5.1.15 Given the presence of SPA and Ramsar birds and the proximity of the Natura 2000 sites, it is envisaged that there will be a requirement to carry out a Habitats Regulations Assessment¹² for the proposals. This will be prepared as part of the DCO application for the proposed development.

¹² It is a requirement of the EC Habitats Directive 1992 and the Conservation of Habitats and Species Regulations 2017 (as amended) that plans and projects are subject to an 'Appropriate Assessment' if it is likely that they will lead to significant adverse effects on a Natura 2000 site (the collective name for European designated sites including SPAs and pSPAs). It is the duty of the 'competent authority' to determine if significant adverse effects are likely and then, if necessary, to undertake the Appropriate Assessment, but the proponent of the scheme can be asked to supply data / reports to inform that decision and it is common practice for the proponent to carry out a shadow HRA screening assessment on which the competent authority may base their assessment / decision. The proponent may not actually carry out the HRA screening assessment themselves and the contents of this document should not be regarded as such an assessment, rather it is a means of informing the assessment. HRA is the first stage in the broader Appropriate Assessment process.

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Figure 1: Location and Overview of Indicative Proposed Development





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Project Title:

CLEAN GAS PROJECT

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Figure 2: Study Areas




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Figure 3: Survey Areas





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CLEAN GAS PROJECT

Client:

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Location Inset:



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Figure 4: Statutory Designated Sites





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Figure 5: Non-Statutory Designated Sites





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Figure 6: Cormorant Counts and Distribution



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Figure 7: Lapwing Counts and Distribution



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Figure 8: Little Tern Counts and Distribution



Figure 9: Redshank Counts and Distribution



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Figure 10: Ringed Plover Counts and Distribution



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Figure 11: Sanderling Counts and Distribution



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Figure 12: Sandwich Tern Counts and Distribution



Figure 13: Shelduck Counts and Distribution



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Figure 14: Shoveler Counts and Distribution



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# Figure 15: Teal Counts and Distribution



# Figure 16: Common Tern Counts and Distribution



# Appendix A - Relevant Legislation and Policy

# **Statutory Legislation**

# The Conservation of Habitats & Species Regulations 2017 (source: <u>http://jncc.defra.gov.uk/page-1379</u>, accessed 08/11/2018)

The Conservation of Habitats and Species Regulations 2017 consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. They also transpose elements of the EU Wild Birds Directive in England and Wales. The Regulations came into force on 30th November 2017, and extend to England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters). In Scotland, the Habitats Directive is transposed through a combination of the Habitats Regulations 2010 (in relation to reserved matters) and the Conservation (Natural Habitats &c.) Regulations 1994. The Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) transpose the Habitats Directive in relation to Northern Ireland.

The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites.

Under the Regulations, competent authorities i.e. any Minister, Government department, public body, or person holding public office, have a general duty, in the exercise of any of their functions, to have regard to the EC Habitats Directive.

The Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I and II of the Habitats Directive respectively) to the European Commission. Once the Commission and EU Member States have agreed that the sites submitted are worthy of designation, they are identified as Sites of Community Importance (SCIs). The EU Member States must then designate these sites as Special Areas of Conservation (SACs) within six years. The Regulations also require the compilation and maintenance of a register of European sites, to include SACs and Special Protection Areas (SPAs) classified under Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive). These sites form a network termed Natura 2000.

The Regulations enable the country agencies to enter into management agreements on land within or adjacent to a European site, in order to secure its conservation. If the agency is unable to conclude such an agreement, or if an agreement is breached, it may acquire the interest in the land compulsorily. The agency may also use its powers to make byelaws to protect European sites. The Regulations also provide for the control of potentially damaging operations, whereby consent from the country agency may only be granted once it has been shown through Appropriate Assessment that the proposed operation will not adversely affect the integrity of the site. When considering potentially damaging operations, the country agencies apply the precautionary principle' i.e. consent cannot be given unless it is ascertained that there will be no adverse effect on the integrity of the site.

In instances where damage could occur, the appropriate Minister may, if necessary, make special nature conservation orders, prohibiting any person from carrying out the operation. However, an operation may proceed where it is or forms part of a plan or project with no alternative solutions, which must be carried out for reasons of overriding public interest. In such instances the Secretary of State must secure compensation to ensure the overall integrity of the Natura 2000 system. The country agencies are required to review consents previously granted under the Wildlife and Countryside Act 1981 for land within a European site, and may modify or withdraw those that are incompatible with the conservation objectives of the site.

The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

The Regulations make special provisions for the protection of European marine sites, requiring the country agencies to advise other authorities of the conservation objectives for a site, and also of the operations which may affect its integrity. The Regulations also enable the establishment of management schemes and byelaws by the relevant authorities and country agencies respectively, for the management and protection of European marine sites.

The Regulations require competent authorities to consider or review planning permission, applied for or granted, affecting a European site, and, subject to certain exceptions, restrict or revoke permission where the integrity of the site would be adversely affected. Equivalent consideration and review provisions are made with respects to highways and roads, electricity, pipe-lines, transport and works, and environmental controls (including discharge consents under water pollution legislation). Special provisions are also made as respects general development orders, special development orders, simplified planning zones and enterprise zones.

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

The Wildlife and Countryside Act 1981 is the major domestic legal instrument for wildlife protection in the UK, and is the primary means by which the following are implemented:

- The Convention on the Conservation of European Wildlife and Natural Habitats ('the Bern Convention'); and
- The Council Directive 79/409/EEC on the Conservation of Wild birds (the EC 'Bird Directive')

With respect to wild birds the Act makes it an offence (with exception to species listed in Schedule 2) to intentionally:

- kill, injure, or take any wild bird,
- take, damage or destroy the nest of any wild bird while that nest is in use or being built (also [take, damage
  or destroy the nest of a wild bird included in Schedule ZA1] under the Natural Environment and Rural
  Communities Act 2006), or
- take or destroy an egg of any wild bird.

Special penalties are available for offences related to birds listed on Schedule 1, for which there are additional offences of disturbing these birds at their nests, or their dependent young. The Secretary of State may also designate Areas of Special Protection (subject to exceptions) to provide further protection to birds. The Act also prohibits certain methods of killing, injuring, or taking birds, restricts the sale and possession of captive bred birds, and sets standards for keeping birds in captivity.

The W&CA requires the prosecuting authority to prove that an offence was intentional, however the Countryside and Rights of Way (CROW) Act 2000 strengthens the provisions of the W&CA by introducing an additional offence of "reckless" disturbance, which means that ignorance of the presence of a protected species cannot be used as a reliable defence should a breach of the W&CA be committed. The Natural Environment and Rural Communities (NERC) Act 2006 strengthens the W&CA further with respect to the protection of the nests of certain birds listed on Schedule ZA1, even when they are not in use. The NERC Act also offers additional protection to birds released into the wild as part of a repopulation programme and provides minor amendments to the W&CA with respect to captive birds.

Annex 1 of the EC Birds Directive lists rare and vulnerable species of regularly occurring or migratory wild birds that are subject to special conservation measures. Article 4 of The Directive also provides for the designation of Special Protection Areas (SPAs) for the protection of these species, which form part of the Natura 2000 network of sites protected by European wildlife legislation.

#### Countryside and Rights of Way (CRoW) Act 2000

The Countryside and Rights of Way Act 2000 applies to England and Wales only. Part III of the Act deals specifically with wildlife protection and nature conservation.

The Act places a duty on Government Departments and the National Assembly for Wales to have regard for the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity.

Schedule 9 of the Act amends the SSSI provisions of the Wildlife and Countryside Act 1981, including increased powers for their protection and management of SSSIs. The provisions extend powers for entering into management agreements; place a duty on public bodies to further the conservation and enhancement of SSSIs;

increase penalties on conviction where the provisions are breached; and include an offence whereby third parties can be convicted for damaging SSSIs.

Schedule 12 of the Act amends the species provisions of the Wildlife and Countryside Act 1981, strengthening the legal protection for threatened species. The provisions make certain offences 'arrestable', include an offence of reckless disturbance, confer greater powers to police and wildlife inspectors for entering premises and obtaining wildlife tissue samples for DNA analysis, and enable heavier penalties on conviction of wildlife offences.

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

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 41 (S41) of the Act required the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list was drawn up in consultation with Natural England, as required by the Act.

The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Fifty-six habitats of principal importance are included on the S41 list. These are all the habitats in England that were identified as requiring action in the (now withdrawn) UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. They include terrestrial habitats such as upland hay meadows to lowland mixed deciduous woodland, and freshwater and marine habitats such as ponds and subtidal sands and gravels.

There are 943 species of principal importance included on the S41 list, 49 of which are birds. These are the species found in England which were identified as requiring action under the (now withdrawn) UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework. In addition, the hen harrier has also been included on the list because without continued conservation action it is unlikely that the hen harrier population will increase from its current very low levels in England.

# **Planning Policy**

#### National Planning Policy Framework (NPPF)

The revised NPPF was published on 24th July 2018 and sets out the government's planning policies for England and how these are expected to be applied. Relevant sections are as follows:

Section 15 of the NPPF relates specifically to 'Conserving and Enhancing the Natural Environment'. Paragraph 170 states that '*Planning policies and decision should contribute to and enhance the natural and local environment by:* 

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.'

Paragraph 171 states that 'Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green

infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

Paragraph 174 states that 'To protect and enhance biodiversity and geodiversity, plans should:

- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

Paragraph 175 states that 'When determining planning application, local planning authorities should apply the following principles:

- if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- development on land within or outside a Site of Special Scientific Interest, and which is likely to have an
  adverse effect on it (either individually or in combination with other developments), should not normally
  be permitted. The only exception is where the benefits of the development in the location proposed
  clearly outweigh both its likely impact on the features of the site that make it of special scientific interest,
  and any broader impacts on the national network of Sites of Special Scientific Interest;
- development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.'

Paragraph 176 states that 'The following should be given the same protection as habitats sites:

- potential Special Protection Areas and possible Special Areas of Conservation;
- listed or proposed Ramsar sites; and
- sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

Paragraph 177 states that 'The presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined.

#### Local Planning Policy

Relevant local planning policies for Redcar and Cleveland Borough Council and Stockton-On-Tees Borough Council are detailed in the following documents:

- Redcar Publication Local Plan (November 2016);
- Redcar and Cleveland Borough Council Local Validation Checklist (2015);
- Stockton-On-Tees Local Plan (1997, Retained Policies);
- Stockton-On-Tees Core Strategy Development Plan (2010); and
- Tees Valley Green Infrastructure Strategy (2008).

The specific provisions for the protection and enhancement of biodiversity, contained within these policy documents, are set out in the PEA report (AECOM, 2018). They do not relate specifically to ornithological interests.

# **Appendix B - Details of Statutory Consultation with Natural England**

Natural England comment/query	AECOM response
Intertidal Bird Survey Method	
"The result will be a total of four counts per survey visit" and "will therefore last for six hours". We are unclear how all of the tidal states listed can be covered if the survey will only last for six hours.	Not always be possible due to limited daylight during the winter months). There are approximately twelve hours between one low tide and the subsequent low tide (or high tide and the subsequent high tide). Surveys will be timed so as to cover, as far as possible, a complete flood (rising) or ebb (falling) tide on each visit. By the definitions provided in the proposed methods, flood and ebb tides last approximately four hours. Achieving full coverage of a flood or ebb tide will allow for one hour to be surveyed at both high tide and low tide, completing the six hours of survey. It will therefore be possible to achieve a survey across half of the tidal cycle.
Inland High Tide Roost Survey Method	
The terrestrial areas are not solely used for roosting. Also, they are used at other stages of the tide. More survey effort is required to capture this use. These surveys should record the activity of birds (as in the Intertidal Bird Survey Method).	Natural England raise a valid point about terrestrial areas being used for feeding. It is therefore possible either to increase the number of inland counts to include for surveys outside of the high tide period, or to keep the total number of surveys the same and ensure that a proportion are conducted outside of the high tide period. They do suggest that "more survey effort is required" so the total number of surveys may need to be increased. Bird behaviour can be noted and this should be made clear to surveyor(s) and the method statement updated.
The survey area should be extended from 250m around the sites to 500m.	The survey buffer will extended to include suitable habitats within a 500m radius so long as access restrictions are not prohibitive.
Weather conditions during bird survey	
It would be useful to understand use of the areas in poor weather conditions e.g. if there are important sheltered roost sites. However, the majority of counts should be conducted in conditions where foraging is not impaired otherwise the potential impacts of the development will be underestimated.	Noted - The majority of counts will be carried out in conditions when foraging is not impaired. A small number of surveys may be carried out in poor weather (which I'm sure will not be in short supply over the winter period!) to understand use of other areas in such conditions.
Birds in flight	
There is the potential for the development to disrupt established flight lines, such as commuting routes between foraging and roosting sites. It would be useful to establish whether there are any regularly used routes across the development sites where significant infrastructure is proposed.	The development will not comprise any moving infrastructure which would result in a likely significant risk of collision. However, birds in flight will be approximately mapped according to the direction of travel and location. The surveyor(s) will record obvious bird movements along particular flight corridors and to provide information on such occurrences. Flight height will not be specifically recorded.
Noise	
If noise during construction or operation is anticipated to have the potential to displace birds using adjacent land then baseline noise monitoring at the sensitive receptors should be carried out. This would allow an assessment to be made of any predicted change.	Noise effects upon ecological features including birds will be included in the future EcIA. As part of the EIA process AECOM will liaise with the noise team to ensure the baseline noise data and modelling informs a robust future assessment of effects of noise.

Natural England comment/query	AECOM response
Impacts on bird supporting habitat	
The development could affect supporting habitat through abstractions/discharges, emissions and dust deposition. These impacts will need to be assessed. As for noise, establishing environmental baselines for these factors will be useful.	Noted.
SSSI extension	
It is likely that the SSSIs underpinning Teesmouth and Cleveland Coast SPA/Ramsar will be amended at the same time as the planned SPA changes. The SSSIs would be extended and joined into a single SSSI and some new features added. The most relevant changes are the addition of harbour seal and various waterbirds as notified features, but these species are already addressed in the survey methods.	Noted.
Additional survey data	
There are some additional survey data that NE hold: - Monthly low tide counts for Seal Sands; - A wintering waterbird survey covering a range of terrestrial sites across Teesside (2014/2015); - An invertebrate survey covering a range of terrestrial sites across Teesside (2015).	Thanks for the confirmation. Is it possible to obtain these documents from Natural England or be directed to where they can be sourced?
Intertidal Bird Survey Method: Gulls	
Gulls are not currently included within the SPA 20K waterbird assemblage. However, they will be added into the assemblage in the upcoming SPA/Ramsar/SSSI changes and great black-backed gull will be a SSSI feature. It would be useful to have at least some gull counts from the intertidal surveys.	Noted - Gulls will also be counted on both the High Tide and Intertidal surveys.
Redshank	
July is an important month for redshank on the Tees Estuary. It would be useful to include July as a 'migratory' period for the Seal Sands intertidal survey area and the South Bank intertidal area (this is North Tees mudflat) as they are both regularly used by a significant number of redshank, i.e. have two counts during July in these areas.	Noted - The scope will be updated to conduct two counts during July 2018.
Natural England comment/query	AECOM response
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Ringed plover	
May is an important month for ringed plover on the Tees Estuary. They occur on the sandy open coast. The SSI plot intertidal survey area includes suitable sandy beach. It would be useful to include May as a 'migratory' period for this area.	The same comment applies to ringed plover and it would be possible to do two surveys in May 2018 for this species.
Survey boundaries	
It looks as if the straight edges to the intertidal count sectors are for ease of counting? Have they been drawn straight out from 500 m from site boundary?	The intertidal count areas are based on a 500 m buffer around the site boundary. The count areas are in fact much larger (allowing for visual coverage from the survey locations) as shown on the attached indicative survey count area plan.
Inland High Tide Roost Survey Method	
It is not clear whether 'high tide roost' counts for the Seal Sands site are just for within the red line boundary (what the table suggests) or whether they will also include suitable areas within 250m of the site (as the method description suggests).	The survey area will include suitable habitat within a 500m radius of the red line site boundary (extended from 250m to address point 3).
It is important to survey suitable areas outside of the red line boundary. It would be useful to extent the buffer further to 500 m, as for the intertidal survey. We also recommend surveying suitable brownfield grassland for the Redcar site.	The Survey area will be extended to include all suitable habitats within a 500m radius of the site boundary.
Wetland areas	
Teardrop plot - There are important wetland areas (that support foraging and roosting waterbirds) included within the Teardrop site 'red line boundary'. This area is within the likely SPA extension. Works on or near these sites will have a significant effect on the waterbirds.	Noted - The wetland areas and waterbodies present within the survey area will be surveyed.
Teardrop plot - The pools are counted as part of WeBS, but within a larger WeBS sector, so more specific survey is required to allocate birds to specific waterbodies. We recommend at least two visits per month. Detailed mapping of birds is not necessary, but counts should be allocated to individual waterbodies.	Specific count sectors have been assigned to include these habitat features (see attached survey plans). Specific references for each wetland/waterbody within each of these count sectors have also been assigned to assess the use/status of birds using these features. We have included the waterbody at Steel House, but have excluded a number of others already buffered from the site boundary by presence of other barrier features such as roads and railways. Two survey visits per month will be undertaken.

Natural England comment/query	AECOM response
SSI plot - There are also important waterbodies between the SSI plot and the intertidal count area. As for the Teardrop plot, these are counted by WeBS, but as part of a larger WeBS sector and so more specific survey is required. As suggested for the Teardrop site, two counts per month with counts allocated to individual waterbodies should provide sufficient information.	No response provided.
Breeding Bird Survey	
Is the breeding bird survey on the Redcar site based on CBC as it is for the Seal Sands site (which is a good method to use)? The method mentions transects.	Yes the methodology will follow the CBC methodology at SSI / Teardrop (as it will be at Seal Sands).
Miscellaneous	
Tees and Hartlepool Foreshore and Wetlands SSSI should be included in the 'nearest designated sites' section of the option 3 table (North Tees mudflat, part of which is in the intertidal survey area of the Southbank plot, is unit 7 of the SSSI).	Noted - this site will be included in the future ecological assessment.

Date: 06 September 2017 Our ref: DAS/12240/217438 Your ref: LE_Projects\Newproje\60508670 - ETI Consenting Strategy\Communication\Natural England

Richard Lowe AECOM 5th Floor 2 City Walk Leeds LS11 9AR United Kingdom



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Dear Richard

#### Discretionary Advice Service (Charged Advice) DAS/12240/217438

Development proposal and location: CCGT with CCS power station and accompanying pipeline – proposed site options; Seal Sands, SSI Redcar and Humber Paull.

Thank you for your consultation on the above dated 08 August 2017, which was received on 08 August 2017.

This advice is being provided as part of Natural England's Discretionary Advice Service. AECOM has asked Natural England to provide advice upon:

• The initial higher level constraints assessments and proposed ecological scope of work that was provided following an initial meeting on 28 July 2017

This advice is provided in accordance with the Quotation and Agreement dated 20 June 2016.

The following advice is based upon the information within the letter and maps provided by email on 8 August 2017 (with updated Paull plan provided on 9 August 2017).

The comments have been split into three broad sections – comments (1) common to all sites, and those specific to (2) the Humber and (3) Teesside. There are slight differences in suggested requirements for the Humber and Teesside surveys (frequency of visits and nocturnal survey). The reasons for these differences are discussed in the Teesside section.

## 1. Common to all sites

#### Intertidal Bird Survey Method

"The result will be a total of four counts per survey visit..." and "will therefore last for six hours". We are unclear how all of the tidal states listed can be covered if the survey will only last for six hours.

#### Inland High Tide Roost Survey Method

The terrestrial areas are not solely used for roosting. Also, they are used at other stages of the tide. More survey effort is required to capture this use. These surveys should record the activity of birds (as in the Intertidal Bird Survey Method).

The survey area should be extended from 250 m around the sites to 500 m.

#### Weather conditions during bird survey

"Surveys will be carried out in a range of weather conditions to provide an accurate reflection of usage of the habitats throughout the year."

It would be useful to understand use of the areas in poor weather conditions e.g. if there are important sheltered roost sites. However, the majority of counts should be conducted in conditions where foraging is not impaired otherwise the potential impacts of the development will be underestimated.

#### Birds in flight

There is the potential for the development to disrupt established flightlines, such as communting routes between foraging and roosting sites. It would be useful to establish whether there are any regularly used routes across the development sites where significant infrastructure is proposed.

#### Noise

If noise during construction or operation is anticipated to have the potential to displace birds using adjacent land then baseline noise monitoring at the sensitive receptors should be carried out. This would allow an assessment to be made of any predicted change.

#### Impacts on bird supporting habitat

The development could affect supporting habitat through abstractions/discharges, emmissions and dust deposition. These impacts will need to be assessed. As for noise, establishing environmental baselines for these factors will be useful.

### 2. Humber

#### ABP survey

#### The letter states:

"It should be noted that the proposed scope of the surveys is for fortnightly visits to be made during the migratory and winter periods to conduct the intertidal and inland high tide roost surveys. Although it was suggested at our meeting that a weekly frequency should be adopted for these surveys during this time, we consider that combined with the availability of data from other sources, including Wetland Bird Surveys (WeBS) and surveys carried out on behalf of Associated British Ports (ABP) and by Industry Nature Conservation Association (INCA), that a fortnightly survey schedule will provide a robust data set with which to complete the assessment and inform mitigation strategies."

However, in the Option Appraisal tables for the Paull site the document says: "No additional surveys proposed – ABP annual bird data to be used..."

Will there be an additional programme of inland survey visits at the Paull site as well as the existing ABP survey?

#### **Option Appraisal tables - Option 2: Humber Estuary (Paull site)**

#### Likely Ecological Constraints

Western plot - It is stated that the loss of habitat to SPA/Ramsar birds has already been addressed by the provision of habitat at Newton Garth. The provision of avoidance measures associated with

the Paull LDO site included the management of an area within the Humber Estuary designated site (at Hedon Haven) as well as Newton Garth. If appropriate management of both these sites is being carried out and is secured in the long term, then it would indeed be reasonable to assume that loss of habitat to SPA/Ramsar birds has already been addressed for the western plot. As this habitat is being managed by another developer, this situation will need to be clarified as reliance upon its success will be crucial for a shadow Habitats Regulations Assessment (HRA).

#### Other ecological features likely to require consideration in the ES

Features not mentioned which should be considered are; sea lamprey, river lamprey and also SAC/SSSI intertidal habitats potentially affected by construction (eg. by dust) or affected by the proposed abstraction/discharge points. We assume you will also be considering any impacts on air quality and how these may affect the designated sites.

#### Survey/Task/Constraint

Wintering/passage birds – We recommend weekly visits during passage periods (September to November inclusive and March to Mid-May inclusive) due to high turnover of birds during migration.

Golden plover have been recorded in this part of the Humber in high numbers and they are known to use inland fields to feed at night. We therefore advise that nocturnal survey should be carried out to ensure you have an accurate picture of SPA/ Ramsar bird usage of the area. Natural England does not have a recommended nocturnal survey methodology, however, the following should be considered;

- Thermal infrared imaging, eg. photographing or digitally recording an image using a camera that tracks the heat given out by objects
- Acoustic recording, eg. using several microphones set in different directions to get information on where birds are and their flight height.
- Night-vision imaging, eg. night-vision goggles

NE would be happy to comment further on any specific suggestions for nocturnal surveys.

The existing ABP on-site, bird survey does not apparently cover August. However, the survey methodology at the end of the document does say that August will be surveyed. Can you confirm that August will be covered? If not this information gap should be addressed.

The existing ABP on-site bird survey only covers the high tide period; how will information on potential bird use of these fields outside of this period be addressed? The Yorkshire Energy Park survey and the survey associated with the Paull LDO consultation may be useful as a guide to whether this is a significant issue. If these surveys identified usage at other states of the tide, we advise that further survey is required to ensure you obtain all the necessary data for your development. As well as numbers, bird behaviour outside of the high tide period could be an important consideration. For example, provision of mitigation for feeding birds will be different to that required for roosting birds.

More information is required on the proposed survey for the pipeline route. For example, how will 'high risk areas' be determined? What 'buffer' outside the pipeline corridor is assumed to be affected?

GCN – We assume that the survey area will extend to waterbodies within 250m of the development footprint? This is not explicit in the table.

Water voles – The Watervole Mitigation Handbook 2016 recommends that, in the majority of cases, two surveys visits are undertaken, one in the first half of the season (mid-April to the end of June) and one in the second half of the season ((July to September) and at least two months apart.

Badgers should be considered. Winter can be a good time to search for setts when vegetation has

died back and the ground is more visible.

#### Bird survey methodology

#### Inland High Tide Roost Survey Method

Clearly it will be relevant to know if birds are using inland fields for feeding as well as for roosting. Is bird behaviour recorded in this survey?

Also see comments above regarding the potential issue of birds using these fields outside of the high tide period which will need to be considered.

It would be useful to record birds in flight especially if the application has potential to affect bird flight lines, for example curlew flying to and from the grassland site north of the A1033 (the YEP site). We would expect to see commentary of birds landing and taking off within and outwith the development site.

## 3. Teesside

#### SSSI extension

It is likely that the SSSIs underpinning Teesmouth and Cleveland Coast SPA/Ramsar will be amended at the same time as the planned SPA changes. The SSSIs would be extended and joined into a single SSSI and some new features added. The most relevant changes are the addition of harbour seal and various waterbirds as notified features, but these species are already addressed in the survey methods.

#### Additional survey data

There are some additional survey data that NE hold:

- Monthly low tide counts for Seal Sands
- A wintering waterbird survey covering a range of terrestrial sites across Teesside (2014/2015)
- An invertebrate survey covering a range of terrestrial sites across Teesside (2015)

#### Intertidal Bird Survey Method

Gulls

Gulls are not currently included within the SPA 20K waterbird assemblage. However, they will be added into the assemblage in the upcoming SPA/Ramsar/SSSI changes and great black-backed gull will be a SSSI feature. It would be useful to have at least some gull counts from the intertidal surveys.

#### Redshank

July is an important month for redshank on the Tees Estuary. It would be useful to include July as a 'migratory' period for the Seal Sands intertidal survey area and the South Bank intertidal area (this is North Tees mudflat) as they are both regularly used by a significant number of redshank, i.e. have two counts during July in these areas.

#### Ringed plover

May is an important month for ringed plover on the Tees Estuary. They occur on the sandy open coast. The SSI plot intertidal survey area includes suitable sandy beach. It would be useful to include May as a 'migratory' period for this area.

#### Survey boundaries

It looks as if the straight edges to the intertidal count sectors are for ease of counting? Have they been drawn straight out from 500 m from site boundary?

#### Inland High Tide Roost Survey Method

Brownfield grassland is an important resource for waterbirds (predominantly curlew and lapwing) on Teesside. It is used for roosting and some foraging throughout the tidal cycle. It is not clear whether 'high tide roost' counts for the Seal Sands site are just for within the red line boundary (what the table suggests) or whether they will also include suitable areas within 250m of the site (as the method description suggests). It is important to survey suitable areas outside of the red line boundary. It would be useful to extent the buffer further to 500 m, as for the intertidal survey. We also recommend surveying suitable brownfield grassland for the Redcar site. The extent of suitable habitat would be picked up during phase 1 mapping. There is unlikely to be a large area of suitable habitat because scrub and coarse grasses are invading lots of the brownfield grassland across the estuary.

#### **Differences from Humber advice**

#### Passage period

Weekly data has not been suggested for the Teesside sites during passage periods because there is likely to be less turnover of birds in these areas.

#### Nocturnal survey

Nocturnal survey has not been requested for Teesside because the relevant Teesside areas are unlikely to be used by many/any golden plover.

## 3a. Seal Sands

#### Intertidal Bird Survey Method

#### Intertidal Project

The Seal Sands intertidal survey area doesn't include the 'Intertidal Project' (the wavy edged-pool just SW of the mudflat, unit 3 of Seal Sands SSSI). This is a regulated tidal exchange pool. It would be useful to include it in the intertidal survey area along with the Seal Sands mudflat.

#### Cooling water

A cooling water abstraction/outfall is mentioned in the Seal Sands site account. The outflow could impact a wider area than captured by the 500m site buffer, in which case a wider area of intertidal should be surveyed. This would depend on the location of the abstraction/outfall and details of its thermal 'plume' etc.

#### Survey boundary

Does the Seal Sands intertidal boundary continue further north than the map, or does the top of the map mark the northern boundary?

## 3b. SSI Redcar

#### Wetland areas

#### Teardrop plot

There are important wetland areas (that support foraging and roosting waterbirds) included within the Teardrop site 'red line boundary'. This area is within the likely SPA extension. Works on or near these sites will have a significant effect on the waterbrids.

The pools are counted as part of WeBS, but within a larger WeBS sector, so more specific survey is required to allocate birds to specific waterbodies. We recommend at least two visits per month. Detailed mapping of birds is not necessary, but counts should be allocated to individual

#### SSI plot

There are also important waterbodies between the SSI plot and the intertidal count area. As for the Teardrop plot, these are counted by WeBS, but as part of a larger WeBS sector and so more specific survey is required. As suggested for the Teardop site, two counts per month with counts allocated to individual waterbodies should provide sufficient information.

#### Breeding bird survey

Is the breeding bird survey on the Redcar site based on CBC as it is for the Seal Sands site (which is a good method to use)? The method mentions transects.

#### Miscellaneous

Tees and Hartlepool Foreshore and Wetlands SSSI should be included in the 'nearest designated sites' section of the option 3 table (North Tees mudflat, part of which is in the intertidal survey area of the Southbank plot, is unit 7 of the SSSI).

The advice provided in this letter has been through Natural England's Quality Assurance process

The advice provided within the Discretionary Advice Service is the professional advice of the Natural England adviser named below. It is the best advice that can be given based on the information provided so far. Its quality and detail is dependent upon the quality and depth of the information which has been provided. It does not constitute a statutory response or decision, which will be made by Natural England acting corporately in its role as statutory consultee to the competent authority after an application has been submitted. The advice given is therefore not binding in any way and is provided without prejudice to the consideration of any statutory consultation response or decision which may be made by Natural England in due course. The final judgement on any proposals by Natural England is reserved until an application is made and will be made on the information then available, including any modifications to the proposal made after receipt of discretionary advice. All pre-application advice is subject to review and revision in the light of changes in relevant considerations, including changes in relation to the facts, scientific knowledge/evidence, policy, guidance or law. Natural England will not accept any liability for the accuracy, adequacy or completeness of, nor will any express or implied warranty be given for, the advice. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of Natural England.

Yours sincerely

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# Appendix C - High Tide and Intertidal Count Metadata

	S	unrise & Sunset	Lo	w & High (m)	Tides		Low Tide Flood Tide High Tide		е	Ebb Tide				Low Tide										
Date	Mid	dlesbrouah		River Te	es ce	Survey Type	Survey Times	-1	Low	+1	+2	+3	-3	-2	-1	Hiah	+1	+2	+3	-3	-2	-1	Low	+1
11/00/117	SR	06:30	L	12:58	1.0	Intertidal LFH	10:00 - 16:00									lingit								
11/09/17	SS	19:31	Н	19:07	5.1	High Tide Roost	16:00 - 18:00																	
25 /00 /17	SR	06:56	L	12:40	1.3	Intertidal HEL	09:00 - 15:00																	
25/09/17	SS	18:55	Н	06:24	5.1	High Tide Roost	07:00 - 09:00																	
10/10/17	SR	07:24	L	12:37	1.0	Intertidal HEL	09:30 - 15:30																	
	SS	18:18	Н	06:12	5.5	High Tide Roost	07:30 - 09:30																	
24/10/17	SR	07:51	L	12:03	1.4	Intertidal LFH	09:30 - 15:30																	
24/10/17	SS	17:45	Н	18:09	5.0	High Tide Roost	15:30 - 17:30																	
14/11/17	SR	07:33	L	06:46	1.3	Intertidal LFH	08:00 - 14:00																	
	SS	16:04	Н	12:57	4.8	High Tide Roost	14:00 - 16:00																	
27/11/17	SR	07:57	L	15:57	2.4	Intertidal HEL	10:00 - 16:00																	
2// 11/ 1/	SS	15:47	Н	09:47	4.3	High Tide Roost	08:00 - 10:00																	
07/10/17	SR	08:12	L	12:12	1.0	Intertidal HEL	10:00 - 16:00																	
0//12/17	SS	15:41	Н	05:57	5.5	High Tide Roost	08:00 - 10:00																	
10/10/17	SR	08:24	L	10:13	1.3	Intertidal LFH	08:00 - 14:00																	
19/12/17	SS	15:39	Н	16:14	5.2	High Tide Roost	14:00 - 16:00																	
00/01/10	SR	08:24	L	14:28	14.8	Intertidal HEL	10:00 - 16:00																	
08/01/18	SS	15:59	Н	08:23	4.8	High Tide Roost	08:00 - 10:00																	
20/01/10	SR	08:15	L	10:29	1.3	Intertidal LFH	08:00 - 14:00																	
20/01/18	SS	16:16	Н	16:30	5.2	High Tide Roost	14:00 - 16:00																	
01/02/10	SR	07:54	L	10:19	0.8	Intertidal LFH	08:00 - 14:00																	
01/02/18	SS	16:43	Н	16:15	5.7	High Tide Roost	14:00 - 16:00																	
10/02/10	SR	07:17	L	11:52	1.1	Intertidal HEL	09:30 - 15:30																	
19/02/18	SS	17:20	Н	05:46	5.1	High Tide Roost	07:30 - 09:30																	
00/02/10	SR	06:44	L	12:00	0.9	Intertidal HEL	09:00 - 15:00																	
08/03/18	SS	17:48	Н	05:50	5.4	High Tide Roost	07:00 - 09:00																	
19/03/18	SR	06:10	L	10:56	0.8	Intertidal LFH	08:30 - 14:30																	

Dulu	S	unrise & Sunset	Lo	w & High (m)	Tides	с. т.		L	.ow Tid	е		Floo	d Tide	1	ł	-ligh Tid	е		Ebb	Tide		l	_ow Tic	de
Date	N 4: d	dlaabrausb		River Te	es	Survey Type	Survey Times	1	Loui	. 1			2	2	1	Lliah	. 1		. 2	2	2	1	Low	.1
	IVIIO	alesprougn		Entrano	.e			- 1	LOW	+1	+2	+3	-3	-2	- 1	High	+1	+2	+3	-3	-2	- 1	LOW	+1
	SS	18:16	Н	16:49	5.5	High Tide Roost	14:30 - 16:30																	
02/04/19	SR	06:33	L	11:33	0.8	Intertidal HEL	09:00-15:00																	
03/04/10	SS	19:45	Н	06:19	5.3	High Tide Roost	07:00-09:00																	
10/04/18	SR	06:16	L	16:42	2.1	Intertidal HEL	09:00-15:00																	
10/04/10	SS	19:58	Н	10:56	4.0	High Tide Roost	07:00-09:00																	
25/05/18	SR	04:45	L	06:31	1.7	Intertidal LFH	06:30 - 12:30																	
23/03/18	SS	21:20	Н	12:33	4.8	High Tide Roost	12:30 - 14:30																	
10/06/18	SR	04:28	L	14:13	0.9	Intertidal HEL	08:15 - 14:15																	
19/00/18	SS	21:44	Н	07:39	5.1	High Tide Roost	06:15 - 08:15																	
27/07/10	SR	05:07	L	09:36	1.2	Intertidal LFH	06:30 - 12:30																	
27/07/18	SS	21:15	Н	15:43	5.0	High Tide Roost	12:30 - 14:30																	
10/0818	SR	05:31	L	08:40	0.9	Intertidal LFH	06:15 - 12:15																	
10/0010	SS	20:49	Η	14:40	5.4	High Tide Roost	12:15 - 14:15																	
20/08/18	SR	05:49	L	17:16	2.1	Intertidal HEL	10:45 - 16:45																	
20/00/10	SS	20:26	Н	10:49	4.3	High Tide Roost	08:45 - 10:45																	

# Appendix D - Common Birds Census Metadata

Visit	Date	Sunrise (Middlesbrough)	Sites	Survey Times	Wind	Cloud	Visibility	Temp (°C)	Rain
			SSI Teardrop	07:15 - 10:00	3-4 SW	8	>3km	10-12	0
			SSI Steelhouse Loop	07:15 - 10:00	3-4 SW	8	>3km	10-12	0
1	17 th April	05:58	Coatham Sands-Gare Rd	10:15 - 12:15	3-4 SW	8	>3km	15	0
			Saltholme Substation	12:45 - 13:15	3-4 SW	8	>3km	16	0
			Lackenby Substation	13:40 - 14:40	3-4 SW	8	>3km	16	0
			SSI Teardrop	09:30 - 12:15	3-4 W	4-6	>3km	14-18	0
			SSI Steelhouse Loop	09:30 - 12:15	3-4 W	4-6	>3km	14-18	0
2	23 rd April	05:54	Coatham Sands-Gare Rd	06:40 - 09:10	3-4 W	2	>3km	10-14	0
			Saltholme Substation	12:45 - 13:15	4 W	5	>3km	17	0
			Lackenby Substation	13:40 - 14:40	4 W	5	>3km	16	0
			SSI Teardrop	07:00 - 09:15	3-4 NE	8	>3km	11	0
			SSI Steelhouse Loop	07:00 - 09:15	3-4 NE	8	>3km	11	0
3	22 nd May	04:48	Coatham Sands-Gare Rd	09:15 - 11:30	3-4 NE	8	>3km	11-12	0
			Saltholme Substation	12:00 - 12:30	3-4 NE	8	>3km	11	0
			Lackenby Substation	12:55 - 14:00	3-4 NE	8	>3km	11	0

Visit	isit Date Sunrise (Middlesbrough)		Sites	Survey Times	Wind	Cloud	Visibility	Temp (°C)	Rain
			SSI Teardrop	07:00 - 09:15	3-4 N	6	>3km	16	0
			SSI Steelhouse Loop	07:00 - 09:15	3-4 N	6	>3km	16	0
4	12 th June	04:29	Coatham Sands-Gare Rd	09:15 - 11:30	3 N	3	>3km	21	0
		Saltholme Substation	12:00 - 12:30	3 N	3	>3km	20	0	
			Lackenby Substation	12:55 - 14:00	3 N	4	>3km	20	0
			SSI Teardrop	09:15 - 11:50	1 NW	8	>3km	17	0
			SSI Steelhouse Loop	09:15 - 11:50	1 NW	8	>3km	17	0
5	12 th July	04:44	Coatham Sands-Gare Rd	06:45 - 09:15	Calm	8	>3km	15	0
			Saltholme Substation	12:20 - 12:50	2 NW	8	>3km	17	0
			Lackenby Substation	13:15 - 14:30	2 NW	7	>3km	18	0

# Appendix E - Verified Bird Records Supplied by Environmental Information Records Centre North East (ERIC)

Latin Name	Common Name	Abundances	Comments	Location Name	Date	Grid Reference
Alauda arvensis	Skylark	1 Count		Teesmouth NNR	14/04/2012	NZ5125
Anas crecca	Teal	1 Count		Teesmouth NNR	14/04/2012	NZ5125
Anas crecca	Teal			Greatham Greek	18/01/2012	NZ509254
Anas platyrhynchos	Mallard	10+ Count	On lake	Cowpen Bewley Woodland Park	03/04/2008	NZ484255
Anas strepera	Gadwall	2 Count		Teesmouth NNR	14/04/2012	NZ5125
Anthus pratensis	Meadow Pipit	4 Count	Alive	GREATHAM CREEK,TEESSIDE	28/07/2008	NZ507256
Ardea cinerea	Grey Heron			Teesmouth NNR	14/04/2012	NZ5125
Aythya fuligula	Tufted Duck	1 Count	On lake	Cowpen Bewley Woodland Park	03/04/2008	NZ484255
Branta canadensis	Canada Goose			Greatham Greek	18/01/2012	NZ509254
Bucephala clangula	Goldeneye			Teesmouth NNR	14/04/2012	NZ5125
Carduelis carduelis	Goldfinch	2 Count	Alive	GREATHAM CREEK,TEESSIDE	28/07/2008	NZ507256
Charadrius hiaticula	Ringed Plover	2 Count	Alive	GREATHAM CREEK,TEESSIDE	28/07/2008	NZ507256
Chroicocephalus ridibundus	Black-headed Gull	7 Count	Alive	GREATHAM CREEK,TEESSIDE	28/07/2008	NZ507256
Corvus corone	Carrion Crow		Smashing mussels on old road	Greatham Greek	18/01/2012	NZ509254
Corvus corone	Carrion Crow	1 Count		Teesmouth NNR	14/04/2012	NZ5125
Cygnus olor	Mute Swan			Greatham Greek	18/01/2012	NZ509254
Emberiza citrinella	Yellowhammer	5 Count	Near visitor centre	Cowpen Bewley Woodland Park	03/04/2008	NZ481253
Falco tinnunculus	Kestrel			Greatham Greek	18/01/2012	NZ509254
Fulica atra	Coot	3 Count	On lake	Cowpen Bewley Woodland Park	03/04/2008	NZ484255
Fulica atra	Coot	2 Count		Teesmouth NNR	14/04/2012	NZ5125
Haematopus ostralegus	Oystercatcher	4 Count		Teesmouth NNR	14/04/2012	NZ5125
Haematopus ostralegus	Oystercatcher			Greatham Greek	18/01/2012	NZ509254
Hirundo rustica	Swallow	12 Count	Alive	GREATHAM CREEK,TEESSIDE	28/07/2008	NZ507256

Latin Name	Common Name	Abundances	Comments	Location Name	Date	Grid Reference
Limosa limosa	Black-tailed Godwit			Greatham Greek	18/01/2012	NZ509254
Mergus serrator	Red-breasted Merganser	2 Count		Teesmouth NNR	14/04/2012	NZ5125
Numenius arquata	Curlew			Greatham Greek	18/01/2012	NZ509254
Numenius arquata	Curlew	1 Count	Alive	GREATHAM CREEK,TEESSIDE	28/07/2008	NZ507256
Phalacrocorax carbo	Cormorant	1 Count		Teesmouth NNR	14/04/2012	NZ5125
Recurvirostra avosetta	Avocet	15 Count		Teesmouth NNR	14/04/2012	NZ5125
Saxicola rubicola	Stonechat			Teesmouth NNR	14/04/2012	NZ5125
Sterna hirundo	Common Tern	17 INC. Count of Juvenile	Alive	GREATHAM CREEK,TEESSIDE	28/07/2008	NZ507256
Sturnus vulgaris	Starling	10 Count	Alive	GREATHAM CREEK,TEESSIDE	28/07/2008	NZ507256
Tachybaptus ruficollis	Little Grebe			Greatham Greek	18/01/2012	NZ509254
Tadorna tadorna	Shelduck	8 Count		Teesmouth NNR	14/04/2012	NZ5125
Tringa totanus	Redshank	1 Count	Alive	GREATHAM CREEK,TEESSIDE	28/07/2008	NZ507256
Tyto alba	Barn Owl		Hunting adjacent to A178, near Saltholme Pools.	A178-Seaton Carew Road	09/01/2009	NZ508227
Vanellus vanellus	Lapwing	5 Count	Alive	GREATHAM CREEK,TEESSIDE	28/07/2008	NZ507256
Vanellus vanellus	Lapwing			Greatham Greek	18/01/2012	NZ509254
Vanellus vanellus	Lapwing	1 Count		Teesmouth NNR	14/04/2012	NZ5125

# Appendix F - British Trust for Ornithology Wetland Birds Survey Core Count Summary Data







Table1: Total Counts - All Species Combined.

Peak monthly total = maximum of the sum of the counts of all species within each month. Seasonal peaks = sum of the maximum counts of for each species within each Season.

Year	Peak M Total	Ionthly	Autumn Peak	Winter Peak	Spring Peak
12/13	1514	(JAN)	1830	1590	416
13/14	1049	(OCT)	1874	1468	309
14/15	2748	(DEC)	925	3147	615
15/16	856	(JAN)	1019	1137	518
16/17	1992	(OCT)	2440	920	469
MEAN		1632	1618	1652	465



## Table2: Five-year average monthly counts of each species.

Figure in parentheses give number of complete and incomplete counts upon which the average is based. Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Teal	0(1,4)	0(3,2)	35(4,1)	5(1,4)	0(2,3)	1(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Eider	34(1,4)	7(3,2)	1(4,1)	1(1,4)	0(2,3)	3(2,3)	1(2,3)	1(2,3)	7(2,3)	0(3,2)	0(3,2)	12(1,4)
Common Scoter	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	1(1,4)
Velvet Scoter	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	1(3,2)	0(1,4)
Goldeneye	0(1,4)	0(3,2)	0(4,1)	0(1,4)	2(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Red-breasted Merganser	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	3(2,3)	2(2,3)	0(2,3)	1(2,3)	0(3,2)	0(3,2)	0(1,4)
Red-throated Diver	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Great Northern Diver	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	1(2,3)	1(2,3)	0(3,2)	0(3,2)	0(1,4)
Great Crested Grebe	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	1(2,3)	0(3,2)	0(3,2)	0(1,4)
Cormorant	5(1,4)	1(3,2)	1(4,1)	4(1,4)	9(2,3)	6(2,3)	3(2,3)	3(2,3)	2(2,3)	3(3,2)	2(3,2)	8(1,4)
Shag	12(1,4)	1(3,2)	1(4,1)	0(1,4)	1(2,3)	2(2,3)	1(2,3)	1(2,3)	1(2,3)	0(3,2)	0(3,2)	0(1,4)
Little Egret	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Oystercatcher	0(1,4)	222(3,2)	230(4,1)	353(1,4)	164(2,3)	156(2,3)	537(2,3)	332(2,3)	98(2,3)	48(3,2)	0(3,2)	6(1,4)
Ringed Plover	10(1,4)	70(3,2)	75(4,1)	1(1,4)	0(2,3)	0(2,3)	0(2,3)	5(2,3)	7(2,3)	18(3,2)	60(3,2)	4(1,4)
Golden Plover	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	15(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Grey Plover	0(1,4)	0(3,2)	0(4,1)	0(1,4)	1(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Knot	0(1,4)	1(3,2)	6(4,1)	50(1,4)	50(2,3)	1(2,3)	11(2,3)	6(2,3)	0(2,3)	0(3,2)	0(3,2)	3(1,4)
Sanderling	7(1,4)	66(3,2)	30(4,1)	128(1,4)	35(2,3)	46(2,3)	72(2,3)	95(2,3)	47(2,3)	197(3,2)	58(3,2)	25(1,4)
Little Stint	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Curlew Sandpiper	0(1,4)	1(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Purple Sandpiper	0(1,4)	0(3,2)	0(4,1)	1(1,4)	4(2,3)	11(2,3)	13(2,3)	5(2,3)	0(2,3)	3(3,2)	0(3,2)	0(1,4)
Dunlin	3(1,4)	153(3,2)	176(4,1)	32(1,4)	18(2,3)	0(2,3)	1(2,3)	3(2,3)	9(2,3)	6(3,2)	60(3,2)	1(1,4)
Woodcock	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Bar-tailed Godwit	0(1,4)	1(3,2)	12(4,1)	8(1,4)	2(2,3)	2(2,3)	3(2,3)	0(2,3)	0(2,3)	0(3,2)	3(3,2)	0(1,4)
Whimbrel	0(1,4)	1(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Curlew	1(1,4)	1(3,2)	0(4,1)	0(1,4)	1(2,3)	0(2,3)	0(2,3)	3(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Redshank	1(1,4)	3(3,2)	0(4,1)	214(1,4)	55(2,3)	146(2,3)	2(2,3)	23(2,3)	24(2,3)	57(3,2)	0(3,2)	0(1,4)
Turnstone	15(1,4)	12(3,2)	13(4,1)	70(1,4)	76(2,3)	67(2,3)	36(2,3)	19(2,3)	32(2,3)	14(3,2)	17(3,2)	0(1,4)
Kittiwake	3(1,4)	0(3,2)	1(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	2(3,2)	1(3,2)	2(1,4)
Black-headed Gull	24(1,4)	67(3,2)	52(4,1)	1232(1,4)	131(2,3)	778(2,3)	94(2,3)	136(2,3)	58(2,3)	0(3,2)	0(3,2)	0(1,4)
Common Gull	4(1,4)	0(3,2)	2(4,1)	30(1,4)	79(2,3)	10(2,3)	463(2,3)	21(2,3)	131(2,3)	0(3,2)	2(3,2)	1(1,4)
Lesser Black-backed Gull	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Herring Gull	43(1,4)	31(3,2)	14(4,1)	217(1,4)	56(2,3)	390(2,3)	71(2,3)	74(2,3)	62(2,3)	37(3,2)	22(3,2)	63(1,4)
Great Black-backed Gull	1(1,4)	0(3,2)	3(4,1)	5(1,4)	5(2,3)	1(2,3)	3(2,3)	0(2,3)	5(2,3)	2(3,2)	2(3,2)	0(1,4)
Little Tern	75(1,4)	2(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	1(3,2)	2(1,4)

Data provided by the British Trust for Omithology on behalf of The Wetland Bird Survey. These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment. Missing or unexpectedly low counts for gulls and terms should be treated with caution - counting these groups is optional and determination of count effort not always possible.

The Wetland Bird Survey is a partnership jointly funded by the British Trust for Ornithology, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee, in association with the Wildfowl and Wetlands Trust, with fieldwork conducted by volunteers.



### Table2: Five-year average monthly counts of each species.

Figure in parentheses give number of complete and incomplete counts upon which the average is based. Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Sandwich Tern	12(1,4)	43(3,2)	5(4,1)	1(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	1(3,2)	11(3,2)	34(1,4)
Common Tern	55(1,4)	73(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	2(3,2)	21(1,4)



Table3: Five-year peak monthly counts of each species. The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Teal	0	0	105	25	0	7	0	0	0	0	0	0
Eider	34	19	2	3	1	5	3	2	8	1	1	14
Common Scoter	0	0	0	0	1	0	0	0	0	0	0	1
Velvet Scoter	0	0	0	0	0	0	0	0	0	0	4	0
Goldeneye	0	0	0	0	4	0	0	0	0	0	0	0
<b>Red-breasted Merganser</b>	0	0	0	0	0	8	4	0	2	0	0	0
<b>Red-throated Diver</b>	0	0	0	0	1	0	1	0	2	0	0	0
Great Northern Diver	0	0	0	0	0	0	0	1	1	1	0	0
Great Crested Grebe	0	0	0	0	0	0	0	0	1	0	0	0
Cormorant	6	3	2	4	16	16	6	5	6	5	3	12
Shag	12	5	2	1	1	3	2	3	2	1	0	0
Little Egret	1	0	0	1	0	0	0	0	0	0	0	0
Oystercatcher	0	300	525	730	274	233	946	450	175	91	0	7
<b>Ringed Plover</b>	20	88	123	3	1	0	1	8	14	29	115	13
Golden Plover	0	0	0	0	0	30	0	0	0	0	0	0
Grey Plover	0	0	1	0	2	0	0	0	0	0	0	0
Knot	0	2	19	50	100	6	31	15	0	0	0	3
Sanderling	35	150	75	128	54	76	144	182	90	279	165	49
Little Stint	0	0	0	0	0	0	0	0	0	0	1	0
Curlew Sandpiper	0	3	0	0	0	0	0	0	0	0	0	0
Purple Sandpiper	0	0	0	1	7	22	26	22	0	10	0	0
Dunlin	5	418	220	32	35	0	1	13	25	18	90	5
Woodcock	0	0	0	0	0	0	1	0	0	0	0	0
Bar-tailed Godwit	0	2	25	40	3	4	5	0	0	0	15	0
Whimbrel	0	1	0	0	0	0	0	0	0	0	0	0
Curlew	5	2	0	0	7	0	0	6	1	1	0	0
Redshank	4	11	1	214	135	290	5	43	45	141	0	0
Turnstone	15	20	29	70	90	100	125	25	58	21	50	2
Kittiwake	3	2	1	0	0	0	0	0	0	4	3	2
Black-headed Gull	68	170	150	1232	137	1500	178	220	115	1	1	1
Common Gull	18	0	5	40	150	17	728	30	261	0	5	3
Lesser Black-backed Gull	0	0	0	0	0	0	0	0	1	0	0	0
Herring Gull	77	85	46	217	62	750	83	120	77	55	35	120
Great Black-backed Gull	1	0	6	5	18	2	4	1	10	2	4	1
Little Tern	75	4	0	0	0	0	0	0	0	0	2	6





## Table3: Five-year peak monthly counts of each species.

The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Sandwich Tern	16	110	14	4	0	0	0	0	0	3	18	45
Common Tern	80	110	1	0	0	0	0	0	0	0	4	53





### Table4a: Five-year autumn peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and October for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

						Mean
Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	or Peaks
Teal	(25) (OCT)	35 (SEP)	(0)	(0)	105 (SEP)	70
Eider	34 (JUL)	(19) (AUG)	9 (AUG)	(0)	(0)	22
Cormorant	4 (JUL)	(2) (JUL)	(3) (OCT)	(4) (OCT)	(6) (JUL)	5
Shag	12 (JUL)	2 (SEP)	1 (SEP)	(0)	(0)	5
Little Egret	0	(0)	(1) (OCT)	(1) (JUL)	(0)	1
Oystercatcher	525 (SEP)	(730) (OCT)	230 (AUG)	300 (AUG)	57 (AUG)	368
Ringed Plover	123 (SEP)	103 (SEP)	58 (AUG)	65 (AUG)	69 (AUG)	84
Grey Plover	1 (SEP)	(0)	(0)	(0)	(0)	1
Knot	(5) (OCT)	(0)	19 (SEP)	2 (AUG)	50 (OCT)	24
Sanderling	(90) (OCT)	(37) (AUG)	35 (AUG)	150 (AUG)	128 (OCT)	104
Curlew Sandpiper	0	(0)	(0)	(0)	3 (AUG)	2
Purple Sandpiper	0	(0)	(0)	(0)	1 (OCT)	1
Dunlin	197 (SEP)	(418) (AUG)	85 (SEP)	160 (AUG)	220 (SEP)	216
Bar-tailed Godwit	(40) (OCT)	9 (SEP)	9 (SEP)	(3) (SEP)	5 (SEP)	16
Whimbrel	0	(1) (AUG)	1 (AUG)	1 (AUG)	(0)	1
Curlew	0	(1) (AUG)	2 (AUG)	(5) (JUL)	(0)	2
Redshank	(11) (AUG)	(2) (AUG)	(4) (OCT)	(0)	214 (OCT)	214
Turnstone	29 (SEP)	(50) (OCT)	15 (AUG)	6 (AUG)	70 (OCT)	34
Kittiwake	3 (JUL)	(2) (JUL)	(1) (JUL)	(1) (SEP)	1 (SEP)	2
Black-headed Gull	(480) (OCT)	(230) (OCT)	170 (AUG)	(150) (SEP)	1232 (OCT)	701
Common Gull	(40) (OCT)	(18) (JUL)	(2) (OCT)	(1) (OCT)	20 (OCT)	30
Herring Gull	(95) (OCT)	(85) (AUG)	(75) (OCT)	(77) (JUL)	217 (OCT)	217
Great Black-backed Gull	6 (SEP)	(5) (OCT)	1 (SEP)	(4) (SEP)	5 (OCT)	4
Little Tern	75 (JUL)	(0)	4 (AUG)	3 (AUG)	(1) (JUL)	27
Sandwich Tern	5 (JUL)	(15) (JUL)	110 (AUG)	(16) (JUL)	16 (AUG)	44
Common Tern	30 (JUL)	(110) (AUG)	90 (AUG)	70 (AUG)	20 (AUG)	64





Table4b: Five-year winter peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between November and March for the winter in question and the species in

question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question. Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Teal	(0)	0	(0)	(7) (DEC)	(0)	4
Eider	8 (MAR)	(5) (DEC)	5 (MAR)	(2) (DEC)	(2) (JAN)	7
Common Scoter	(0)	0	(0)	0	(1) (NOV)	0
Goldeneye	(0)	0	(0)	4 (NOV)	(0)	2
<b>Red-breasted Merganser</b>	2 (JAN)	(8) (DEC)	2 (MAR)	(4) (JAN)	(0)	4
<b>Red-throated Diver</b>	(1) (NOV)	0	(0)	(2) (MAR)	(1) (JAN)	1
Great Northern Diver	(0)	0	1 (MAR)	1 (FEB)	(0)	1
Great Crested Grebe	(0)	0	1 (MAR)	0	(0)	0
Cormorant	(2) (NOV)	(6) (MAR)	(5) (FEB)	16 (NOV)	(8) (NOV)	16
Shag	3 (DEC)	(1) (MAR)	(3) (FEB)	1 (NOV)	(0)	2
Oystercatcher	946 (JAN)	176 (NOV)	(125) (JAN)	(400) (JAN)	(250) (FEB)	561
Ringed Plover	5 (MAR)	0	(6) (FEB)	(10) (MAR)	(14) (MAR)	7
Golden Plover	30 (DEC)	0	(0)	0	(0)	10
Grey Plover	(0)	2 (NOV)	(0)	0	(0)	1
Knot	(6) (NOV)	100 (NOV)	(4) (FEB)	(31) (JAN)	(15) (FEB)	100
Sanderling	144 (JAN)	15 (NOV)	90 (MAR)	182 (FEB)	(63) (DEC)	108
Purple Sandpiper	26 (JAN)	(22) (FEB)	(2) (FEB)	0	(0)	16
Dunlin	1 (JAN)	35 (NOV)	1 (MAR)	0	(25) (MAR)	12
Woodcock	(0)	0	(0)	(1) (JAN)	(0)	1
Bar-tailed Godwit	5 (JAN)	3 (NOV)	(0)	0	(3) (NOV)	3
Curlew	6 (FEB)	0	(0)	0	(7) (NOV)	3
Redshank	2 (MAR)	30 (NOV)	290 (DEC)	27 (FEB)	(135) (NOV)	97
Turnstone	20 (JAN)	70 (NOV)	100 (DEC)	(125) (JAN)	(90) (NOV)	81
Black-headed Gull	85 (JAN)	(142) (FEB)	1500 (DEC)	220 (FEB)	(180) (FEB)	602
Common Gull	197 (JAN)	728 (JAN)	261 (MAR)	30 (FEB)	(32) (MAR)	304
Lesser Black-backed Gull	(0)	(1) (MAR)	(0)	0	(0)	1
Herring Gull	83 (JAN)	(120) (FEB)	750 (DEC)	73 (FEB)	(86) (FEB)	302
Great Black-backed Gull	(18) (NOV)	4 (JAN)	(1) (FEB)	(1) (DEC)	(8) (NOV)	10





## Five year summary for Coatham Sands North Table4c: Five-year spring peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between April and June for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Eider	10 (JUN)	(3) (JUN)	0	1 (APR)	(14) (JUN)	6
Common Scoter	1 (JUN)	(0)	0	0	(0)	0
Velvet Scoter	0	(0)	4 (MAY)	0	(0)	1
Great Northern Diver	0	(0)	0	1 (APR)	(0)	0
Cormorant	5 (APR)	3 (MAY)	(8) (JUN)	1 (APR)	(12) (JUN)	6
Shag	0	(0)	0	1 (APR)	(0)	0
Oystercatcher	53 (APR)	(0)	91 (APR)	(7) (JUN)	(7) (JUN)	72
Ringed Plover	3 (APR)	115 (MAY)	65 (MAY)	22 (APR)	(58) (MAY)	53
Knot	3 (JUN)	(0)	0	0	(0)	1
Sanderling	145 (APR)	(64) (APR)	168 (APR)	279 (APR)	(127) (APR)	197
Little Stint	0	(0)	1 (MAY)	0	(0)	0
Purple Sandpiper	0	(0)	10 (APR)	0	(0)	3
Dunlin	(90) (MAY)	60 (MAY)	90 (MAY)	1 (APR)	(18) (MAY)	60
Bar-tailed Godwit	(15) (MAY)	(0)	0	0	(1) (MAY)	4
Curlew	0	(0)	1 (APR)	0	(0)	0
Redshank	10 (APR)	(0)	20 (APR)	141 (APR)	(0)	57
Turnstone	2 (APR)	(0)	50 (MAY)	21 (APR)	(10) (APR)	24
Kittiwake	4 (APR)	(2) (JUN)	3 (MAY)	(2) (JUN)	(2) (APR)	4
Black-headed Gull	0	(1) (APR)	1 (APR)	(1) (JUN)	(0)	1
Common Gull	0	1 (MAY)	0	5 (MAY)	(0)	2
Herring Gull	55 (APR)	35 (MAY)	(45) (JUN)	26 (APR)	(120) (JUN)	56
Great Black-backed Gull	2 (APR)	4 (MAY)	2 (APR)	1 (APR)	(2) (APR)	2
Little Tern	0	2 (MAY)	(6) (JUN)	(2) (JUN)	(0)	3
Sandwich Tern	17 (JUN)	18 (MAY)	(40) (JUN)	(6) (JUN)	(45) (JUN)	30
Common Tern	1 (JUN)	1 (MAY)	(10) (JUN)	0	(53) (JUN)	13

## eBS The Wetland Bird Survey



## Five year summary for Coatham Sands North Table4d: Five-year annual peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Teal	(25) (OCT)	35 (SEP)	(0)	(7) (DEC)	105 (SEP)	70
Eider	34 (JUL)	(19) (AUG)	9 (AUG)	(2) (DEC)	(14) (JUN)	22
Common Scoter	1 (JUN)	(0)	(0)	(0)	(1) (NOV)	1
Velvet Scoter	0	(0)	4 (MAY)	(0)	(0)	2
Goldeneye	0	(0)	(0)	4 (NOV)	(0)	2
<b>Red-breasted Merganser</b>	2 (JAN)	(8) (DEC)	2 (MAR)	(4) (JAN)	(0)	4
<b>Red-throated Diver</b>	(1) (NOV)	(0)	(0)	(2) (MAR)	(1) (JAN)	(2)
Great Northern Diver	0	(0)	1 (MAR)	1 (APR)	(0)	1
Great Crested Grebe	0	(0)	1 (MAR)	(0)	(0)	1
Cormorant	5 (APR)	(6) (MAR)	(8) (JUN)	16 (NOV)	(12) (JUN)	11
Shag	12 (JUL)	2 (SEP)	(3) (FEB)	1 (APR)	(0)	5
Little Egret	0	(0)	(1) (OCT)	(1) (JUL)	(0)	1
Oystercatcher	946 (JAN)	(730) (OCT)	230 (AUG)	(400) (JAN)	(250) (FEB)	635
<b>Ringed Plover</b>	123 (SEP)	115 (MAY)	65 (MAY)	65 (AUG)	69 (AUG)	87
Golden Plover	30 (DEC)	(0)	(0)	(0)	(0)	30
Grey Plover	1 (SEP)	2 (NOV)	(0)	(0)	(0)	2
Knot	(6) (NOV)	100 (NOV)	19 (SEP)	(31) (JAN)	50 (OCT)	56
Sanderling	145 (APR)	(64) (APR)	168 (APR)	279 (APR)	128 (OCT)	180
Little Stint	0	(0)	1 (MAY)	(0)	(0)	1
Curlew Sandpiper	0	(0)	(0)	(0)	3 (AUG)	2
Purple Sandpiper	26 (JAN)	(22) (FEB)	10 (APR)	(0)	1 (OCT)	15
Dunlin	197 (SEP)	(418) (AUG)	90 (MAY)	160 (AUG)	220 (SEP)	217
Woodcock	0	(0)	(0)	(1) (JAN)	(0)	1
<b>Bar-tailed Godwit</b>	(40) (OCT)	9 (SEP)	9 (SEP)	(3) (SEP)	5 (SEP)	16
Whimbrel	0	(1) (AUG)	1 (AUG)	1 (AUG)	(0)	1
Curlew	6 (FEB)	(1) (AUG)	2 (AUG)	(5) (JUL)	(7) (NOV)	5
Redshank	(11) (AUG)	30 (NOV)	290 (DEC)	141 (APR)	214 (OCT)	169
Turnstone	29 (SEP)	70 (NOV)	100 (DEC)	(125) (JAN)	(90) (NOV)	83
Kittiwake	4 (APR)	(2) (JUL)	3 (MAY)	(2) (JUN)	(2) (APR)	4
Black-headed Gull	(480) (OCT)	(230) (OCT)	1500 (DEC)	220 (FEB)	1232 (OCT)	984
Common Gull	197 (JAN)	728 (JAN)	261 (MAR)	30 (FEB)	(32) (MAR)	304





## Five year summary for Coatham Sands North Table4d: Five-year annual peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean.

When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Lesser Black-backed Gull	0	(1) (MAR)	(0)	(0)	(0)	1
Herring Gull	(95) (OCT)	(120) (FEB)	750 (DEC)	(77) (JUL)	217 (OCT)	484
Great Black-backed Gull	(18) (NOV)	(5) (OCT)	2 (APR)	(4) (SEP)	(8) (NOV)	7
Little Tern	75 (JUL)	2 (MAY)	(6) (JUN)	3 (AUG)	(1) (JUL)	27
Sandwich Tern	17 (JUN)	18 (MAY)	110 (AUG)	(16) (JUL)	(45) (JUN)	48
Common Tern	30 (JUL)	(110) (AUG)	90 (AUG)	70 (AUG)	(53) (JUN)	75





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site.

Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Teal	3%	0%	N/A	3%	1%	0%	N/A	1%
Eider	4%	1%	1%	4%	0%	0%	0%	0%
Velvet Scoter	N/A	N/A	*2%	*4%	N/A	N/A	0%	0%
Goldeneye	N/A	1%	N/A	1%	N/A	0%	N/A	0%
Red-breasted Merganser	N/A	5%	N/A	5%	N/A	0%	N/A	0%
Red-throated Diver	N/A	1%	N/A	N/A	N/A	0%	N/A	N/A
Great Northern Diver	N/A	*2%	*0%	*2%	N/A	2%	0%	2%
Cormorant	1%	5%	2%	3%	0%	1%	1%	1%
Shag	0%	0%	0%	0%	0%	0%	0%	0%
Little Egret	*2%	N/A	N/A	*2%	0%	N/A	N/A	0%
Oystercatcher	12%	18%	2%	20%	4%	7%	1%	8%
Ringed Plover	25%	2%	16%	26%	12%	1%	7%	12%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Teal	70	4		70
Eider	22	7	6	22
Velvet Scoter			1	2
Goldeneye		2		2
Red-breasted Merganser		4		4
Red-throated Diver		1		(2)
Great Northern Diver		1	0	1
Cormorant	5	16	6	11
Shag	5	2	0	5
Little Egret	1			1
Oystercatcher	368	561	72	635
Ringed Plover	84	7	53	87





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(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Golden Plover	N/A	0%	N/A	1%	N/A	0%	N/A	0%
Grey Plover	0%	0%	N/A	0%	0%	0%	N/A	0%
Knot	1%	3%	0%	2%	1%	2%	0%	1%
Sanderling	65%	68%	123%	113%	9%	9%	16%	15%
Curlew Sandpiper	*4%	N/A	N/A	*4%	0%	N/A	N/A	0%
Purple Sandpiper	1%	12%	2%	12%	0%	2%	0%	2%
Dunlin	6%	0%	2%	6%	2%	0%	0%	2%
Woodcock	N/A	0%	N/A	0%	N/A	0%	N/A	0%
Bar-tailed Godwit	4%	1%	1%	4%	1%	0%	0%	1%
Whimbrel	*2%	N/A	N/A	*2%	0%	N/A	N/A	0%
Curlew	0%	0%	0%	0%	0%	0%	0%	0%
Redshank	18%	8%	5%	14%	9%	4%	2%	7%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Golden Plover		10		30
Grey Plover	1	1		2
Knot	24	100	1	56
Sanderling	104	108	197	180
Curlew Sandpiper	2			2
Purple Sandpiper	1	16	3	15
Dunlin	216	12	60	217
Woodcock		1		1
Bar-tailed Godwit	16	3	4	16
Whimbrel	1			1
Curlew	2	3	0	5
Redshank	214	97	57	169

Data provided by the British Trust for Ornithology on behalf of The Wetland Bird Survey.

These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment.

Missing or unexpectedly low counts for gulls and terns should be treated with caution - counting these groups is optional and determination of count effort not always possible.





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values

of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site. Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Turnstone	7%	17%	5%	17%	2%	6%	2%	6%
Kittiwake	*4%	N/A	*8%	*8%	0%	N/A	0%	0%
Black-headed Gull	3%	3%	0%	4%	4%	3%	0%	5%
Common Gull	0%	4%	0%	4%	0%	2%	0%	2%
Lesser Black-backed Gull	N/A	0%	N/A	0%	N/A	0%	N/A	0%
Herring Gull	3%	4%	1%	7%	2%	3%	1%	5%
Great Black-backed Gull	1%	1%	0%	1%	0%	0%	0%	0%
Little Tern	*54%	N/A	*6%	*54%	14%	N/A	2%	14%
Sandwich Tern	*88%	N/A	*60%	*96%	3%	N/A	2%	3%
Common Tern	*128%	N/A	*26%	*150%	4%	N/A	1%	4%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Turnstone	34	81	24	83
Kittiwake	2		4	4
Black-headed Gull	701	602	1	984
Common Gull	30	304	2	304
Lesser Black-backed Gull		1		1
Herring Gull	217	302	56	484
Great Black-backed Gull	4	10	2	7
Little Tern	27		3	27
Sandwich Tern	44		30	48
Common Tern	64		13	75

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Table1: Total Counts - All Species Combined.

Peak monthly total = maximum of the sum of the counts of all species within each month. Seasonal peaks = sum of the maximum counts of for each species within each Season.

Year	Peak M Total	Ionthly	Autumn Peak	Winter Peak	Spring Peak	
12/13	1514	(JAN)	1830	1590	416	
13/14	1049	(OCT)	1874	1468	309	
14/15	2748	(DEC)	925	3147	615	
15/16	856	(JAN)	1019	1137	518	
16/17	1992	(OCT)	2440	920	469	
MEAN		1632	1618	1652	465	



## Table2: Five-year average monthly counts of each species.

Figure in parentheses give number of complete and incomplete counts upon which the average is based. Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Teal	0(1,4)	0(3,2)	35(4,1)	5(1,4)	0(2,3)	1(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Eider	34(1,4)	7(3,2)	1(4,1)	1(1,4)	0(2,3)	3(2,3)	1(2,3)	1(2,3)	7(2,3)	0(3,2)	0(3,2)	12(1,4)
Common Scoter	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	1(1,4)
Velvet Scoter	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	1(3,2)	0(1,4)
Goldeneye	0(1,4)	0(3,2)	0(4,1)	0(1,4)	2(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Red-breasted Merganser	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	3(2,3)	2(2,3)	0(2,3)	1(2,3)	0(3,2)	0(3,2)	0(1,4)
Red-throated Diver	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Great Northern Diver	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	1(2,3)	1(2,3)	0(3,2)	0(3,2)	0(1,4)
Great Crested Grebe	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	1(2,3)	0(3,2)	0(3,2)	0(1,4)
Cormorant	5(1,4)	1(3,2)	1(4,1)	4(1,4)	9(2,3)	6(2,3)	3(2,3)	3(2,3)	2(2,3)	3(3,2)	2(3,2)	8(1,4)
Shag	12(1,4)	1(3,2)	1(4,1)	0(1,4)	1(2,3)	2(2,3)	1(2,3)	1(2,3)	1(2,3)	0(3,2)	0(3,2)	0(1,4)
Little Egret	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Oystercatcher	0(1,4)	222(3,2)	230(4,1)	353(1,4)	164(2,3)	156(2,3)	537(2,3)	332(2,3)	98(2,3)	48(3,2)	0(3,2)	6(1,4)
Ringed Plover	10(1,4)	70(3,2)	75(4,1)	1(1,4)	0(2,3)	0(2,3)	0(2,3)	5(2,3)	7(2,3)	18(3,2)	60(3,2)	4(1,4)
Golden Plover	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	15(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Grey Plover	0(1,4)	0(3,2)	0(4,1)	0(1,4)	1(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Knot	0(1,4)	1(3,2)	6(4,1)	50(1,4)	50(2,3)	1(2,3)	11(2,3)	6(2,3)	0(2,3)	0(3,2)	0(3,2)	3(1,4)
Sanderling	7(1,4)	66(3,2)	30(4,1)	128(1,4)	35(2,3)	46(2,3)	72(2,3)	95(2,3)	47(2,3)	197(3,2)	58(3,2)	25(1,4)
Little Stint	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Curlew Sandpiper	0(1,4)	1(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Purple Sandpiper	0(1,4)	0(3,2)	0(4,1)	1(1,4)	4(2,3)	11(2,3)	13(2,3)	5(2,3)	0(2,3)	3(3,2)	0(3,2)	0(1,4)
Dunlin	3(1,4)	153(3,2)	176(4,1)	32(1,4)	18(2,3)	0(2,3)	1(2,3)	3(2,3)	9(2,3)	6(3,2)	60(3,2)	1(1,4)
Woodcock	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Bar-tailed Godwit	0(1,4)	1(3,2)	12(4,1)	8(1,4)	2(2,3)	2(2,3)	3(2,3)	0(2,3)	0(2,3)	0(3,2)	3(3,2)	0(1,4)
Whimbrel	0(1,4)	1(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Curlew	1(1,4)	1(3,2)	0(4,1)	0(1,4)	1(2,3)	0(2,3)	0(2,3)	3(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Redshank	1(1,4)	3(3,2)	0(4,1)	214(1,4)	55(2,3)	146(2,3)	2(2,3)	23(2,3)	24(2,3)	57(3,2)	0(3,2)	0(1,4)
Turnstone	15(1,4)	12(3,2)	13(4,1)	70(1,4)	76(2,3)	67(2,3)	36(2,3)	19(2,3)	32(2,3)	14(3,2)	17(3,2)	0(1,4)
Kittiwake	3(1,4)	0(3,2)	1(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	2(3,2)	1(3,2)	2(1,4)
Black-headed Gull	24(1,4)	67(3,2)	52(4,1)	1232(1,4)	131(2,3)	778(2,3)	94(2,3)	136(2,3)	58(2,3)	0(3,2)	0(3,2)	0(1,4)
Common Gull	4(1,4)	0(3,2)	2(4,1)	30(1,4)	79(2,3)	10(2,3)	463(2,3)	21(2,3)	131(2,3)	0(3,2)	2(3,2)	1(1,4)
Lesser Black-backed Gull	0(1,4)	0(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	0(3,2)	0(1,4)
Herring Gull	43(1,4)	31(3,2)	14(4,1)	217(1,4)	56(2,3)	390(2,3)	71(2,3)	74(2,3)	62(2,3)	37(3,2)	22(3,2)	63(1,4)
Great Black-backed Gull	1(1,4)	0(3,2)	3(4,1)	5(1,4)	5(2,3)	1(2,3)	3(2,3)	0(2,3)	5(2,3)	2(3,2)	2(3,2)	0(1,4)
Little Tern	75(1,4)	2(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	1(3,2)	2(1,4)

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The Wetland Bird Survey is a partnership jointly funded by the British Trust for Ornithology, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee, in association with the Wildfowl and Wetlands Trust, with fieldwork conducted by volunteers.



### Table2: Five-year average monthly counts of each species.

Figure in parentheses give number of complete and incomplete counts upon which the average is based. Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Sandwich Tern	12(1,4)	43(3,2)	5(4,1)	1(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	1(3,2)	11(3,2)	34(1,4)
Common Tern	55(1,4)	73(3,2)	0(4,1)	0(1,4)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(2,3)	0(3,2)	2(3,2)	21(1,4)



Table3: Five-year peak monthly counts of each species. The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Teal	0	0	105	25	0	7	0	0	0	0	0	0
Eider	34	19	2	3	1	5	3	2	8	1	1	14
Common Scoter	0	0	0	0	1	0	0	0	0	0	0	1
Velvet Scoter	0	0	0	0	0	0	0	0	0	0	4	0
Goldeneye	0	0	0	0	4	0	0	0	0	0	0	0
<b>Red-breasted Merganser</b>	0	0	0	0	0	8	4	0	2	0	0	0
<b>Red-throated Diver</b>	0	0	0	0	1	0	1	0	2	0	0	0
Great Northern Diver	0	0	0	0	0	0	0	1	1	1	0	0
Great Crested Grebe	0	0	0	0	0	0	0	0	1	0	0	0
Cormorant	6	3	2	4	16	16	6	5	6	5	3	12
Shag	12	5	2	1	1	3	2	3	2	1	0	0
Little Egret	1	0	0	1	0	0	0	0	0	0	0	0
Oystercatcher	0	300	525	730	274	233	946	450	175	91	0	7
<b>Ringed Plover</b>	20	88	123	3	1	0	1	8	14	29	115	13
Golden Plover	0	0	0	0	0	30	0	0	0	0	0	0
Grey Plover	0	0	1	0	2	0	0	0	0	0	0	0
Knot	0	2	19	50	100	6	31	15	0	0	0	3
Sanderling	35	150	75	128	54	76	144	182	90	279	165	49
Little Stint	0	0	0	0	0	0	0	0	0	0	1	0
Curlew Sandpiper	0	3	0	0	0	0	0	0	0	0	0	0
Purple Sandpiper	0	0	0	1	7	22	26	22	0	10	0	0
Dunlin	5	418	220	32	35	0	1	13	25	18	90	5
Woodcock	0	0	0	0	0	0	1	0	0	0	0	0
Bar-tailed Godwit	0	2	25	40	3	4	5	0	0	0	15	0
Whimbrel	0	1	0	0	0	0	0	0	0	0	0	0
Curlew	5	2	0	0	7	0	0	6	1	1	0	0
Redshank	4	11	1	214	135	290	5	43	45	141	0	0
Turnstone	15	20	29	70	90	100	125	25	58	21	50	2
Kittiwake	3	2	1	0	0	0	0	0	0	4	3	2
Black-headed Gull	68	170	150	1232	137	1500	178	220	115	1	1	1
Common Gull	18	0	5	40	150	17	728	30	261	0	5	3
Lesser Black-backed Gull	0	0	0	0	0	0	0	0	1	0	0	0
Herring Gull	77	85	46	217	62	750	83	120	77	55	35	120
Great Black-backed Gull	1	0	6	5	18	2	4	1	10	2	4	1
Little Tern	75	4	0	0	0	0	0	0	0	0	2	6

Data provided by the British Trust for Omithology on behalf of The Wetland Bird Survey. These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment. Missing or unexpectedly low counts for gulls and terms should be treated with caution - counting these groups is optional and determination of count effort not always possible.

The Wetland Bird Survey is a partnership jointly funded by the British Trust for Ornithology, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee, in association with the Wildfowl and Wetlands Trust, with fieldwork conducted by volunteers.




#### Table3: Five-year peak monthly counts of each species.

The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Sandwich Tern	16	110	14	4	0	0	0	0	0	3	18	45
Common Tern	80	110	1	0	0	0	0	0	0	0	4	53





#### Table4a: Five-year autumn peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and October for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

						Mean
Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	or Peaks
Teal	(25) (OCT)	35 (SEP)	(0)	(0)	105 (SEP)	70
Eider	34 (JUL)	(19) (AUG)	9 (AUG)	(0)	(0)	22
Cormorant	4 (JUL)	(2) (JUL)	(3) (OCT)	(4) (OCT)	(6) (JUL)	5
Shag	12 (JUL)	2 (SEP)	1 (SEP)	(0)	(0)	5
Little Egret	0	(0)	(1) (OCT)	(1) (JUL)	(0)	1
Oystercatcher	525 (SEP)	(730) (OCT)	230 (AUG)	300 (AUG)	57 (AUG)	368
Ringed Plover	123 (SEP)	103 (SEP)	58 (AUG)	65 (AUG)	69 (AUG)	84
Grey Plover	1 (SEP)	(0)	(0)	(0)	(0)	1
Knot	(5) (OCT)	(0)	19 (SEP)	2 (AUG)	50 (OCT)	24
Sanderling	(90) (OCT)	(37) (AUG)	35 (AUG)	150 (AUG)	128 (OCT)	104
Curlew Sandpiper	0	(0)	(0)	(0)	3 (AUG)	2
Purple Sandpiper	0	(0)	(0)	(0)	1 (OCT)	1
Dunlin	197 (SEP)	(418) (AUG)	85 (SEP)	160 (AUG)	220 (SEP)	216
Bar-tailed Godwit	(40) (OCT)	9 (SEP)	9 (SEP)	(3) (SEP)	5 (SEP)	16
Whimbrel	0	(1) (AUG)	1 (AUG)	1 (AUG)	(0)	1
Curlew	0	(1) (AUG)	2 (AUG)	(5) (JUL)	(0)	2
Redshank	(11) (AUG)	(2) (AUG)	(4) (OCT)	(0)	214 (OCT)	214
Turnstone	29 (SEP)	(50) (OCT)	15 (AUG)	6 (AUG)	70 (OCT)	34
Kittiwake	3 (JUL)	(2) (JUL)	(1) (JUL)	(1) (SEP)	1 (SEP)	2
Black-headed Gull	(480) (OCT)	(230) (OCT)	170 (AUG)	(150) (SEP)	1232 (OCT)	701
Common Gull	(40) (OCT)	(18) (JUL)	(2) (OCT)	(1) (OCT)	20 (OCT)	30
Herring Gull	(95) (OCT)	(85) (AUG)	(75) (OCT)	(77) (JUL)	217 (OCT)	217
Great Black-backed Gull	6 (SEP)	(5) (OCT)	1 (SEP)	(4) (SEP)	5 (OCT)	4
Little Tern	75 (JUL)	(0)	4 (AUG)	3 (AUG)	(1) (JUL)	27
Sandwich Tern	5 (JUL)	(15) (JUL)	110 (AUG)	(16) (JUL)	16 (AUG)	44
Common Tern	30 (JUL)	(110) (AUG)	90 (AUG)	70 (AUG)	20 (AUG)	64





Table4b: Five-year winter peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between November and March for the winter in question and the species in

question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question. Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Teal	(0)	0	(0)	(7) (DEC)	(0)	4
Eider	8 (MAR)	(5) (DEC)	5 (MAR)	(2) (DEC)	(2) (JAN)	7
Common Scoter	(0)	0	(0)	0	(1) (NOV)	0
Goldeneye	(0)	0	(0)	4 (NOV)	(0)	2
<b>Red-breasted Merganser</b>	2 (JAN)	(8) (DEC)	2 (MAR)	(4) (JAN)	(0)	4
<b>Red-throated Diver</b>	(1) (NOV)	0	(0)	(2) (MAR)	(1) (JAN)	1
Great Northern Diver	(0)	0	1 (MAR)	1 (FEB)	(0)	1
Great Crested Grebe	(0)	0	1 (MAR)	0	(0)	0
Cormorant	(2) (NOV)	(6) (MAR)	(5) (FEB)	16 (NOV)	(8) (NOV)	16
Shag	3 (DEC)	(1) (MAR)	(3) (FEB)	1 (NOV)	(0)	2
Oystercatcher	946 (JAN)	176 (NOV)	(125) (JAN)	(400) (JAN)	(250) (FEB)	561
Ringed Plover	5 (MAR)	0	(6) (FEB)	(10) (MAR)	(14) (MAR)	7
Golden Plover	30 (DEC)	0	(0)	0	(0)	10
Grey Plover	(0)	2 (NOV)	(0)	0	(0)	1
Knot	(6) (NOV)	100 (NOV)	(4) (FEB)	(31) (JAN)	(15) (FEB)	100
Sanderling	144 (JAN)	15 (NOV)	90 (MAR)	182 (FEB)	(63) (DEC)	108
Purple Sandpiper	26 (JAN)	(22) (FEB)	(2) (FEB)	0	(0)	16
Dunlin	1 (JAN)	35 (NOV)	1 (MAR)	0	(25) (MAR)	12
Woodcock	(0)	0	(0)	(1) (JAN)	(0)	1
Bar-tailed Godwit	5 (JAN)	3 (NOV)	(0)	0	(3) (NOV)	3
Curlew	6 (FEB)	0	(0)	0	(7) (NOV)	3
Redshank	2 (MAR)	30 (NOV)	290 (DEC)	27 (FEB)	(135) (NOV)	97
Turnstone	20 (JAN)	70 (NOV)	100 (DEC)	(125) (JAN)	(90) (NOV)	81
Black-headed Gull	85 (JAN)	(142) (FEB)	1500 (DEC)	220 (FEB)	(180) (FEB)	602
Common Gull	197 (JAN)	728 (JAN)	261 (MAR)	30 (FEB)	(32) (MAR)	304
Lesser Black-backed Gull	(0)	(1) (MAR)	(0)	0	(0)	1
Herring Gull	83 (JAN)	(120) (FEB)	750 (DEC)	73 (FEB)	(86) (FEB)	302
Great Black-backed Gull	(18) (NOV)	4 (JAN)	(1) (FEB)	(1) (DEC)	(8) (NOV)	10





### Five year summary for Coatham Sands North Table4c: Five-year spring peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between April and June for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Eider	10 (JUN)	(3) (JUN)	0	1 (APR)	(14) (JUN)	6
Common Scoter	1 (JUN)	(0)	0	0	(0)	0
Velvet Scoter	0	(0)	4 (MAY)	0	(0)	1
Great Northern Diver	0	(0)	0	1 (APR)	(0)	0
Cormorant	5 (APR)	3 (MAY)	(8) (JUN)	1 (APR)	(12) (JUN)	6
Shag	0	(0)	0	1 (APR)	(0)	0
Oystercatcher	53 (APR)	(0)	91 (APR)	(7) (JUN)	(7) (JUN)	72
Ringed Plover	3 (APR)	115 (MAY)	65 (MAY)	22 (APR)	(58) (MAY)	53
Knot	3 (JUN)	(0)	0	0	(0)	1
Sanderling	145 (APR)	(64) (APR)	168 (APR)	279 (APR)	(127) (APR)	197
Little Stint	0	(0)	1 (MAY)	0	(0)	0
Purple Sandpiper	0	(0)	10 (APR)	0	(0)	3
Dunlin	(90) (MAY)	60 (MAY)	90 (MAY)	1 (APR)	(18) (MAY)	60
Bar-tailed Godwit	(15) (MAY)	(0)	0	0	(1) (MAY)	4
Curlew	0	(0)	1 (APR)	0	(0)	0
Redshank	10 (APR)	(0)	20 (APR)	141 (APR)	(0)	57
Turnstone	2 (APR)	(0)	50 (MAY)	21 (APR)	(10) (APR)	24
Kittiwake	4 (APR)	(2) (JUN)	3 (MAY)	(2) (JUN)	(2) (APR)	4
Black-headed Gull	0	(1) (APR)	1 (APR)	(1) (JUN)	(0)	1
Common Gull	0	1 (MAY)	0	5 (MAY)	(0)	2
Herring Gull	55 (APR)	35 (MAY)	(45) (JUN)	26 (APR)	(120) (JUN)	56
Great Black-backed Gull	2 (APR)	4 (MAY)	2 (APR)	1 (APR)	(2) (APR)	2
Little Tern	0	2 (MAY)	(6) (JUN)	(2) (JUN)	(0)	3
Sandwich Tern	17 (JUN)	18 (MAY)	(40) (JUN)	(6) (JUN)	(45) (JUN)	30
Common Tern	1 (JUN)	1 (MAY)	(10) (JUN)	0	(53) (JUN)	13



#### Five year summary for Coatham Sands North Table4d: Five-year annual peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Teal	(25) (OCT)	35 (SEP)	(0)	(7) (DEC)	105 (SEP)	70
Eider	34 (JUL)	(19) (AUG)	9 (AUG)	(2) (DEC)	(14) (JUN)	22
Common Scoter	1 (JUN)	(0)	(0)	(0)	(1) (NOV)	1
Velvet Scoter	0	(0)	4 (MAY)	(0)	(0)	2
Goldeneye	0	(0)	(0)	4 (NOV)	(0)	2
<b>Red-breasted Merganser</b>	2 (JAN)	(8) (DEC)	2 (MAR)	(4) (JAN)	(0)	4
<b>Red-throated Diver</b>	(1) (NOV)	(0)	(0)	(2) (MAR)	(1) (JAN)	(2)
Great Northern Diver	0	(0)	1 (MAR)	1 (APR)	(0)	1
Great Crested Grebe	0	(0)	1 (MAR)	(0)	(0)	1
Cormorant	5 (APR)	(6) (MAR)	(8) (JUN)	16 (NOV)	(12) (JUN)	11
Shag	12 (JUL)	2 (SEP)	(3) (FEB)	1 (APR)	(0)	5
Little Egret	0	(0)	(1) (OCT)	(1) (JUL)	(0)	1
Oystercatcher	946 (JAN)	(730) (OCT)	230 (AUG)	(400) (JAN)	(250) (FEB)	635
<b>Ringed Plover</b>	123 (SEP)	115 (MAY)	65 (MAY)	65 (AUG)	69 (AUG)	87
Golden Plover	30 (DEC)	(0)	(0)	(0)	(0)	30
Grey Plover	1 (SEP)	2 (NOV)	(0)	(0)	(0)	2
Knot	(6) (NOV)	100 (NOV)	19 (SEP)	(31) (JAN)	50 (OCT)	56
Sanderling	145 (APR)	(64) (APR)	168 (APR)	279 (APR)	128 (OCT)	180
Little Stint	0	(0)	1 (MAY)	(0)	(0)	1
Curlew Sandpiper	0	(0)	(0)	(0)	3 (AUG)	2
Purple Sandpiper	26 (JAN)	(22) (FEB)	10 (APR)	(0)	1 (OCT)	15
Dunlin	197 (SEP)	(418) (AUG)	90 (MAY)	160 (AUG)	220 (SEP)	217
Woodcock	0	(0)	(0)	(1) (JAN)	(0)	1
<b>Bar-tailed Godwit</b>	(40) (OCT)	9 (SEP)	9 (SEP)	(3) (SEP)	5 (SEP)	16
Whimbrel	0	(1) (AUG)	1 (AUG)	1 (AUG)	(0)	1
Curlew	6 (FEB)	(1) (AUG)	2 (AUG)	(5) (JUL)	(7) (NOV)	5
Redshank	(11) (AUG)	30 (NOV)	290 (DEC)	141 (APR)	214 (OCT)	169
Turnstone	29 (SEP)	70 (NOV)	100 (DEC)	(125) (JAN)	(90) (NOV)	83
Kittiwake	4 (APR)	(2) (JUL)	3 (MAY)	(2) (JUN)	(2) (APR)	4
Black-headed Gull	(480) (OCT)	(230) (OCT)	1500 (DEC)	220 (FEB)	1232 (OCT)	984
Common Gull	197 (JAN)	728 (JAN)	261 (MAR)	30 (FEB)	(32) (MAR)	304





### Five year summary for Coatham Sands North Table4d: Five-year annual peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean.

When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Lesser Black-backed Gull	0	(1) (MAR)	(0)	(0)	(0)	1
Herring Gull	(95) (OCT)	(120) (FEB)	750 (DEC)	(77) (JUL)	217 (OCT)	484
Great Black-backed Gull	(18) (NOV)	(5) (OCT)	2 (APR)	(4) (SEP)	(8) (NOV)	7
Little Tern	75 (JUL)	2 (MAY)	(6) (JUN)	3 (AUG)	(1) (JUL)	27
Sandwich Tern	17 (JUN)	18 (MAY)	110 (AUG)	(16) (JUL)	(45) (JUN)	48
Common Tern	30 (JUL)	(110) (AUG)	90 (AUG)	70 (AUG)	(53) (JUN)	75





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site.

Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Teal	3%	0%	N/A	3%	1%	0%	N/A	1%
Eider	4%	1%	1%	4%	0%	0%	0%	0%
Velvet Scoter	N/A	N/A	*2%	*4%	N/A	N/A	0%	0%
Goldeneye	N/A	1%	N/A	1%	N/A	0%	N/A	0%
Red-breasted Merganser	N/A	5%	N/A	5%	N/A	0%	N/A	0%
Red-throated Diver	N/A	1%	N/A	N/A	N/A	0%	N/A	N/A
Great Northern Diver	N/A	*2%	*0%	*2%	N/A	2%	0%	2%
Cormorant	1%	5%	2%	3%	0%	1%	1%	1%
Shag	0%	0%	0%	0%	0%	0%	0%	0%
Little Egret	*2%	N/A	N/A	*2%	0%	N/A	N/A	0%
Oystercatcher	12%	18%	2%	20%	4%	7%	1%	8%
Ringed Plover	25%	2%	16%	26%	12%	1%	7%	12%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Teal	70	4		70
Eider	22	7	6	22
Velvet Scoter			1	2
Goldeneye		2		2
Red-breasted Merganser		4		4
Red-throated Diver		1		(2)
Great Northern Diver		1	0	1
Cormorant	5	16	6	11
Shag	5	2	0	5
Little Egret	1			1
Oystercatcher	368	561	72	635
Ringed Plover	84	7	53	87





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site.

Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Golden Plover	N/A	0%	N/A	1%	N/A	0%	N/A	0%
Grey Plover	0%	0%	N/A	0%	0%	0%	N/A	0%
Knot	1%	3%	0%	2%	1%	2%	0%	1%
Sanderling	65%	68%	123%	113%	9%	9%	16%	15%
Curlew Sandpiper	*4%	N/A	N/A	*4%	0%	N/A	N/A	0%
Purple Sandpiper	1%	12%	2%	12%	0%	2%	0%	2%
Dunlin	6%	0%	2%	6%	2%	0%	0%	2%
Woodcock	N/A	0%	N/A	0%	N/A	0%	N/A	0%
Bar-tailed Godwit	4%	1%	1%	4%	1%	0%	0%	1%
Whimbrel	*2%	N/A	N/A	*2%	0%	N/A	N/A	0%
Curlew	0%	0%	0%	0%	0%	0%	0%	0%
Redshank	18%	8%	5%	14%	9%	4%	2%	7%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Golden Plover		10		30
Grey Plover	1	1		2
Knot	24	100	1	56
Sanderling	104	108	197	180
Curlew Sandpiper	2			2
Purple Sandpiper	1	16	3	15
Dunlin	216	12	60	217
Woodcock		1		1
Bar-tailed Godwit	16	3	4	16
Whimbrel	1			1
Curlew	2	3	0	5
Redshank	214	97	57	169

Data provided by the British Trust for Ornithology on behalf of The Wetland Bird Survey.

These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment.

Missing or unexpectedly low counts for gulls and terns should be treated with caution - counting these groups is optional and determination of count effort not always possible.





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values

of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site. Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Turnstone	7%	17%	5%	17%	2%	6%	2%	6%
Kittiwake	*4%	N/A	*8%	*8%	0%	N/A	0%	0%
Black-headed Gull	3%	3%	0%	4%	4%	3%	0%	5%
Common Gull	0%	4%	0%	4%	0%	2%	0%	2%
Lesser Black-backed Gull	N/A	0%	N/A	0%	N/A	0%	N/A	0%
Herring Gull	3%	4%	1%	7%	2%	3%	1%	5%
Great Black-backed Gull	1%	1%	0%	1%	0%	0%	0%	0%
Little Tern	*54%	N/A	*6%	*54%	14%	N/A	2%	14%
Sandwich Tern	*88%	N/A	*60%	*96%	3%	N/A	2%	3%
Common Tern	*128%	N/A	*26%	*150%	4%	N/A	1%	4%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Turnstone	34	81	24	83
Kittiwake	2		4	4
Black-headed Gull	701	602	1	984
Common Gull	30	304	2	304
Lesser Black-backed Gull		1		1
Herring Gull	217	302	56	484
Great Black-backed Gull	4	10	2	7
Little Tern	27		3	27
Sandwich Tern	44		30	48
Common Tern	64		13	75

Data provided by the British Trust for Ornithology on behalf of The Wetland Bird Survey.

These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment.

For some species (e.g. whiteing geese) data collected by other surveys may be more appropriate for the purpose of site assessment. Missing or unexpectedly low counts for gulls and terns should be treated with caution - counting these groups is optional and determination of count effort not always possible.





### Five year summary for Redcar and Coatham Sands South

#### Table1: Total Counts - All Species Combined.

Peak monthly total = maximum of the sum of the counts of all species within each month. Seasonal peaks = sum of the maximum counts of for each species within each Season.

Year	Peak M Total	Ionthly	Autumn Peak	Winter Peak	Spring Peak
12/13	1098	(JAN)	290	1960	306
13/14	1162	(FEB)	1173	1651	232
14/15	383	(FEB)	388	657	87
15/16	387	(APR)	271	558	506
16/17	917	(OCT)	987	558	347
MEAN		789	622	1077	296



### Five year summary for Redcar and Coatham Sands South

Table2: Five-year average monthly counts of each species.

Figure in parentheses give number of complete and incomplete counts upon which the average is based. Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Whooper Swan	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Shelduck	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Wigeon	0(1,4)	0(2,3)	4(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Teal	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Mallard	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	1(.,5)	0(3,2)	0(4,1)	0(.,5)
Eider	10(1,4)	1(2,3)	12(3,2)	31(1,4)	25(2,3)	10(2,3)	15(3,2)	1(.,4)	4(.,5)	5(3,2)	2(4,1)	0(.,5)
Long-tailed Duck	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	1(3,2)	1(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Common Scoter	21(1,4)	0(2,3)	0(3,2)	0(1,4)	31(2,3)	57(2,3)	30(3,2)	14(.,4)	7(.,5)	8(3,2)	0(4,1)	0(.,5)
Velvet Scoter	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	1(2,3)	6(3,2)	2(.,4)	4(.,5)	0(3,2)	0(4,1)	0(.,5)
Goldeneye	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Red-breasted Merganser	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	2(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Red-throated Diver	0(1,4)	0(2,3)	0(3,2)	1(1,4)	1(2,3)	0(2,3)	2(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Great Crested Grebe	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Cormorant	3(1,4)	2(2,3)	3(3,2)	12(1,4)	6(2,3)	2(2,3)	7(3,2)	2(.,4)	1(.,5)	6(3,2)	1(4,1)	1(.,5)
Shag	0(1,4)	0(2,3)	0(3,2)	2(1,4)	1(2,3)	2(2,3)	3(3,2)	0(.,4)	0(.,5)	1(3,2)	0(4,1)	0(.,5)
Little Egret	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Oystercatcher	9(1,4)	12(2,3)	277(3,2)	495(1,4)	142(2,3)	39(2,3)	6(3,2)	87(.,4)	1(.,5)	102(3,2)	3(4,1)	0(.,5)
Ringed Plover	1(1,4)	6(2,3)	2(3,2)	1(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	4(3,2)	4(4,1)	0(.,5)
Knot	0(1,4)	10(2,3)	0(3,2)	6(1,4)	1(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	5(3,2)	0(4,1)	0(.,5)
Sanderling	0(1,4)	21(2,3)	53(3,2)	34(1,4)	63(2,3)	103(2,3)	90(3,2)	26(.,4)	46(.,5)	36(3,2)	25(4,1)	0(.,5)
Purple Sandpiper	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	1(3,2)	0(4,1)	0(.,5)
Dunlin	3(1,4)	7(2,3)	5(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	1(3,2)	3(4,1)	0(.,5)
Bar-tailed Godwit	0(1,4)	0(2,3)	3(3,2)	5(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	2(4,1)	0(.,5)
Curlew	1(1,4)	5(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	4(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Redshank	0(1,4)	0(2,3)	0(3,2)	0(1,4)	29(2,3)	66(2,3)	73(3,2)	63(.,4)	82(.,5)	14(3,2)	0(4,1)	0(.,5)
Turnstone	1(1,4)	3(2,3)	2(3,2)	107(1,4)	24(2,3)	29(2,3)	50(3,2)	31(.,4)	19(.,5)	65(3,2)	2(4,1)	0(.,5)
Kittiwake	0(1,4)	6(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	1(3,2)	0(4,1)	1(.,5)
Black-headed Gull	26(1,4)	116(2,3)	75(3,2)	173(1,4)	94(2,3)	159(2,3)	128(3,2)	105(.,4)	55(.,5)	1(3,2)	0(4,1)	4(.,5)
Little Gull	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Common Gull	1(1,4)	7(2,3)	2(3,2)	11(1,4)	20(2,3)	12(2,3)	206(3,2)	152(.,4)	2(.,5)	2(3,2)	0(4,1)	0(.,5)
Lesser Black-backed Gull	0(1,4)	1(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Herring Gull	32(1,4)	39(2,3)	38(3,2)	62(1,4)	78(2,3)	97(2,3)	60(3,2)	45(.,4)	55(.,5)	35(3,2)	44(4,1)	32(.,5)
Great Black-backed Gull	0(1,4)	0(2,3)	8(3,2)	3(1,4)	3(2,3)	9(2,3)	3(3,2)	1(.,4)	15(.,5)	3(3,2)	0(4,1)	0(.,5)
Sandwich Tern	14(1,4)	10(2,3)	8(3,2)	1(1,3)	0(2,3)	0(2,3)	0(2,2)	0(.,4)	0(.,5)	1(3,2)	3(4,1)	7(.,5)



### Five year summary for Redcar and Coatham Sands South

#### Table2: Five-year average monthly counts of each species.

Figure in parentheses give number of complete and incomplete counts upon which the average is based. Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Common Tern	6(1,4)	25(2,3)	0(3,2)	0(1,3)	0(2,3)	0(2,3)	0(2,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	3(.,5)
Arctic Tern	0(1,4)	0(2,3)	0(3,2)	0(1,3)	0(2,3)	0(2,3)	0(2,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)





# Five year summary for Redcar and Coatham Sands South

Table3: Five-year peak monthly counts of each species. The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Whooper Swan	0	0	0	0	2	0	0	0	0	0	0	0
Shelduck	0	0	0	0	0	0	0	0	0	0	0	2
Wigeon	0	0	22	0	0	0	0	0	0	0	0	0
Teal	0	0	1	0	0	0	0	0	0	0	0	0
Mallard	0	0	0	0	0	0	0	0	3	0	0	0
Eider	10	6	29	55	74	16	40	3	10	9	5	1
Long-tailed Duck	0	0	0	0	2	0	3	2	2	1	0	0
Common Scoter	21	0	1	0	150	102	54	56	30	18	0	0
Velvet Scoter	0	0	0	0	0	1	10	8	10	0	1	0
Goldeneye	0	0	0	0	0	0	1	0	0	0	0	0
Red-breasted Merganser	0	0	0	1	0	0	4	0	0	0	0	0
<b>Red-throated Diver</b>	0	0	0	2	1	1	6	0	1	0	0	0
Great Crested Grebe	0	0	0	0	0	2	0	0	1	0	0	0
Cormorant	3	3	4	12	9	3	15	5	2	9	2	2
Shag	1	0	1	11	3	3	6	0	0	1	0	0
Little Egret	1	0	0	0	0	0	0	0	0	0	0	0
Oystercatcher	44	24	626	495	383	44	11	343	4	227	11	0
Ringed Plover	6	10	5	1	0	0	0	0	0	9	15	0
Knot	0	20	0	6	1	0	0	0	0	15	0	0
Sanderling	1	36	140	34	102	123	180	100	195	73	80	0
Purple Sandpiper	0	0	0	0	0	0	0	0	0	2	0	0
Dunlin	15	12	10	0	0	0	0	0	1	2	12	0
Bar-tailed Godwit	0	0	8	5	1	0	0	0	0	0	8	0
Curlew	5	9	0	1	0	0	0	12	0	0	0	0
Redshank	0	0	1	2	35	136	220	210	159	47	0	0
Turnstone	7	3	5	107	38	37	65	85	27	109	8	0
Kittiwake	0	18	1	0	0	0	0	0	0	2	0	3
Black-headed Gull	68	132	123	173	123	195	181	170	119	2	1	13
Little Gull	0	0	0	0	0	0	1	0	0	0	0	0
Common Gull	3	11	3	11	32	20	609	600	5	6	0	0
Lesser Black-backed Gull	2	3	0	0	0	0	0	0	0	0	0	0
Herring Gull	77	50	54	62	150	159	95	58	75	52	138	68
Great Black-backed Gull	1	1	15	4	5	16	6	4	75	6	0	2
Sandwich Tern	30	12	22	2	0	0	0	0	0	2	8	12





### Five year summary for Redcar and Coatham Sands South Table3: Five-year peak monthly counts of each species.

The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Common Tern	20	115	0	0	0	0	0	0	0	0	0	16
Arctic Tern	0	1	0	0	0	0	0	0	0	0	0	0



#### Five year summary for Redcar and Coatham Sands South Table4a: Five-year autumn peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and October for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

						Mean
Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	or Peaks
Wigeon	0	(0)	(22) (SEP)	(0)	(0)	11
Teal	0	(0)	(0)	(0)	1 (SEP)	1
Eider	(30) (OCT)	(55) (OCT)	(7) (OCT)	(4) (OCT)	9 (OCT)	31
Common Scoter	21 (JUL)	(0)	(3) (JUL)	(0)	(0)	21
<b>Red-breasted Merganser</b>	(1) (OCT)	(0)	(0)	(0)	(0)	(1)
<b>Red-throated Diver</b>	(2) (OCT)	(0)	(0)	(1) (OCT)	(0)	(2)
Cormorant	3 (JUL)	3 (SEP)	(3) (JUL)	(6) (OCT)	12 (OCT)	6
Shag	(11) (OCT)	(1) (JUL)	(0)	(0)	(0)	(11)
Little Egret	0	(0)	(0)	(1) (JUL)	(0)	1
Oystercatcher	(1) (OCT)	626 (SEP)	(44) (JUL)	(7) (SEP)	495 (OCT)	561
<b>Ringed Plover</b>	(10) (AUG)	4 (SEP)	(6) (JUL)	(1) (AUG)	1 (AUG)	5
Knot	0	(0)	(0)	(0)	20 (AUG)	10
Sanderling	(12) (AUG)	140 (SEP)	(16) (OCT)	(4) (OCT)	36 (AUG)	88
Dunlin	(3) (AUG)	6 (SEP)	(15) (JUL)	(0)	12 (AUG)	11
Bar-tailed Godwit	0	8 (SEP)	(0)	(0)	5 (OCT)	4
Curlew	0	(0)	(1) (OCT)	(5) (JUL)	9 (AUG)	5
Redshank	0	1 (SEP)	(2) (OCT)	(0)	(0)	1
Turnstone	(3) (OCT)	1 (SEP)	(58) (OCT)	(5) (SEP)	107 (OCT)	55
Kittiwake	0	(18) (AUG)	(1) (SEP)	(0)	1 (AUG)	5
Black-headed Gull	123 (SEP)	(88) (OCT)	132 (AUG)	(122) (SEP)	173 (OCT)	143
Common Gull	0	(11) (AUG)	(3) (JUL)	(11) (AUG)	11 (OCT)	8
Lesser Black-backed Gull	0	(3) (AUG)	(0)	(0)	(0)	2
Herring Gull	44 (SEP)	(53) (JUL)	(56) (OCT)	(77) (JUL)	62 (OCT)	60
Great Black-backed Gull	(4) (OCT)	9 (SEP)	(0)	(2) (OCT)	15 (SEP)	12
Sandwich Tern	22 (SEP)	(30) (JUL)	(16) (JUL)	(16) (JUL)	12 (AUG)	21
Common Tern	0	(115) (AUG)	(3) (JUL)	(9) (AUG)	(6) (JUL)	27
Arctic Tern	0	(1) (AUG)	(0)	(0)	(0)	1



### Five year summary for Redcar and Coatham Sands South Table4b: Five-year winter peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between November and March for the winter in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question. Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Whooper Swan	(2) (NOV)	(0)	(0)	0	0	1
Mallard	(0)	(3) (MAR)	(0)	0	0	1
Eider	40 (JAN)	(74) (NOV)	(19) (NOV)	(12) (JAN)	6 (JAN)	40
Long-tailed Duck	(0)	(0)	3 (JAN)	0	0	1
Common Scoter	(150) (NOV)	(6) (MAR)	(56) (FEB)	0	0	42
Velvet Scoter	1 (DEC)	(0)	8 (JAN)	0	10 (JAN)	5
Goldeneye	1 (JAN)	(0)	(0)	0	0	0
<b>Red-breasted Merganser</b>	2 (JAN)	(4) (JAN)	(0)	0	0	2
<b>Red-throated Diver</b>	1 (JAN)	(1) (DEC)	(0)	0	6 (JAN)	2
Great Crested Grebe	(0)	(2) (DEC)	(0)	0	0	1
Cormorant	4 (JAN)	(4) (NOV)	(4) (NOV)	(15) (JAN)	8 (JAN)	9
Shag	4 (JAN)	(1) (JAN)	(0)	(6) (JAN)	1 (JAN)	4
Oystercatcher	(383) (NOV)	(343) (FEB)	33 (DEC)	(2) (DEC)	11 (JAN)	193
Knot	(0)	(0)	(0)	1 (NOV)	0	1
Sanderling	123 (DEC)	(105) (JAN)	180 (JAN)	(195) (MAR)	38 (JAN)	134
Dunlin	(0)	(0)	(1) (MAR)	0	0	0
Bar-tailed Godwit	(1) (NOV)	(0)	(0)	0	0	0
Curlew	(0)	(12) (FEB)	(0)	(3) (FEB)	0	5
Redshank	(145) (MAR)	(136) (DEC)	(88) (MAR)	(42) (FEB)	220 (JAN)	220
Turnstone	65 (JAN)	(36) (JAN)	(85) (FEB)	(53) (JAN)	60 (JAN)	70
Black-headed Gull	195 (DEC)	(170) (FEB)	123 (DEC)	123 (NOV)	(119) (MAR)	153
Little Gull	(0)	(0)	(0)	(1) (JAN)	0	1
Common Gull	609 (JAN)	(600) (FEB)	10 (DEC)	32 (NOV)	(20) (DEC)	313
Herring Gull	159 (DEC)	(150) (NOV)	(46) (FEB)	68 (NOV)	(58) (FEB)	126
Great Black-backed Gull	(75) (MAR)	(4) (FEB)	1 (DEC)	5 (NOV)	1 (NOV)	17



#### Five year summary for Redcar and Coatham Sands South Table4c: Five-year spring peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between April and June for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean.

When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Shelduck	(2) (JUN)	0	(0)	0	(0)	1
Eider	8 (APR)	2 (APR)	(9) (APR)	0	(8) (APR)	5
Long-tailed Duck	0	1 (APR)	(0)	0	(0)	0
Common Scoter	5 (APR)	18 (APR)	(0)	0	(0)	8
Velvet Scoter	0	0	(0)	0	1 (MAY)	0
Cormorant	9 (APR)	7 (APR)	(1) (APR)	1 (APR)	(5) (APR)	6
Shag	1 (APR)	1 (APR)	(0)	0	(0)	1
Oystercatcher	80 (APR)	1 (MAY)	(0)	227 (APR)	(48) (APR)	103
Ringed Plover	9 (APR)	2 (APR)	(2) (MAY)	15 (MAY)	(1) (APR)	9
Knot	0	0	(0)	15 (APR)	(0)	5
Sanderling	48 (APR)	18 (APR)	(6) (MAY)	80 (MAY)	(73) (APR)	55
Purple Sandpiper	2 (APR)	0	(0)	0	(0)	1
Dunlin	0	2 (APR)	(0)	12 (MAY)	(0)	5
Bar-tailed Godwit	8 (MAY)	0	(0)	0	(0)	3
Redshank	2 (APR)	6 (APR)	(0)	1 (APR)	(47) (APR)	14
Turnstone	61 (APR)	25 (APR)	(11) (APR)	109 (APR)	(64) (APR)	65
Kittiwake	(3) (JUN)	0	(0)	0	(1) (APR)	1
Black-headed Gull	2 (APR)	1 (MAY)	(13) (JUN)	(4) (JUN)	(3) (JUN)	5
Common Gull	6 (APR)	0	(0)	0	(0)	2
Herring Gull	52 (APR)	138 (MAY)	(30) (APR)	(40) (JUN)	(68) (JUN)	95
Great Black-backed Gull	6 (APR)	2 (APR)	(2) (JUN)	1 (APR)	(0)	3
Sandwich Tern	2 (APR)	8 (MAY)	(12) (JUN)	(1) (JUN)	(12) (JUN)	9
Common Tern	0	0	(1) (JUN)	0	(16) (JUN)	3



#### Five year summary for Redcar and Coatham Sands South Table4d: Five-year annual peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Whooper Swan	(2) (NOV)	(0)	(0)	(0)	(0)	(2)
Shelduck	(2) (JUN)	(0)	(0)	(0)	(0)	(2)
Wigeon	0	(0)	(22) (SEP)	(0)	(0)	11
Teal	0	(0)	(0)	(0)	1 (SEP)	1
Mallard	0	(3) (MAR)	(0)	(0)	(0)	2
Eider	40 (JAN)	(74) (NOV)	(19) (NOV)	(12) (JAN)	9 (OCT)	41
Long-tailed Duck	0	1 (APR)	3 (JAN)	(0)	(0)	1
Common Scoter	(150) (NOV)	18 (APR)	(56) (FEB)	(0)	(0)	75
Velvet Scoter	1 (DEC)	(0)	8 (JAN)	(0)	10 (JAN)	6
Goldeneye	1 (JAN)	(0)	(0)	(0)	(0)	1
<b>Red-breasted Merganser</b>	2 (JAN)	(4) (JAN)	(0)	(0)	(0)	3
<b>Red-throated Diver</b>	(2) (OCT)	(1) (DEC)	(0)	(1) (OCT)	6 (JAN)	6
Great Crested Grebe	0	(2) (DEC)	(0)	(0)	(0)	1
Cormorant	9 (APR)	7 (APR)	(4) (NOV)	(15) (JAN)	12 (OCT)	11
Shag	(11) (OCT)	(1) (JUL)	(0)	(6) (JAN)	1 (JAN)	6
Little Egret	0	(0)	(0)	(1) (JUL)	(0)	1
Oystercatcher	(383) (NOV)	626 (SEP)	(44) (JUL)	227 (APR)	495 (OCT)	449
<b>Ringed Plover</b>	(10) (AUG)	4 (SEP)	(6) (JUL)	15 (MAY)	1 (AUG)	8
Knot	0	(0)	(0)	15 (APR)	20 (AUG)	12
Sanderling	123 (DEC)	140 (SEP)	180 (JAN)	(195) (MAR)	(73) (APR)	160
Purple Sandpiper	2 (APR)	(0)	(0)	(0)	(0)	2
Dunlin	(3) (AUG)	6 (SEP)	(15) (JUL)	12 (MAY)	12 (AUG)	11
<b>Bar-tailed Godwit</b>	8 (MAY)	8 (SEP)	(0)	(0)	5 (OCT)	7
Curlew	0	(12) (FEB)	(1) (OCT)	(5) (JUL)	9 (AUG)	7
Redshank	(145) (MAR)	(136) (DEC)	(88) (MAR)	(42) (FEB)	220 (JAN)	220
Turnstone	65 (JAN)	(36) (JAN)	(85) (FEB)	109 (APR)	107 (OCT)	94
Kittiwake	(3) (JUN)	(18) (AUG)	(1) (SEP)	(0)	1 (AUG)	7
Black-headed Gull	195 (DEC)	(170) (FEB)	132 (AUG)	123 (NOV)	173 (OCT)	159
Little Gull	0	(0)	(0)	(1) (JAN)	(0)	1
Common Gull	609 (JAN)	(600) (FEB)	10 (DEC)	32 (NOV)	(20) (DEC)	313
Lesser Black-backed Gull	0	(3) (AUG)	(0)	(0)	(0)	2





### Five year summary for Redcar and Coatham Sands South Table4d: Five-year annual peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Herring Gull	159 (DEC)	(150) (NOV)	(56) (OCT)	(77) (JUL)	(68) (JUN)	159
Great Black-backed Gull	(75) (MAR)	9 (SEP)	(2) (JUN)	5 (NOV)	15 (SEP)	26
Sandwich Tern	22 (SEP)	(30) (JUL)	(16) (JUL)	(16) (JUL)	12 (AUG)	21
Common Tern	0	(115) (AUG)	(3) (JUL)	(9) (AUG)	(16) (JUN)	29
Arctic Tern	0	(1) (AUG)	(0)	(0)	(0)	1

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### Five year summary for Redcar and Coatham Sands South

Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017 represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site.

Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Whooper Swan	N/A	1%	N/A	N/A	N/A	0%	N/A	N/A
Shelduck	N/A	N/A	0%	N/A	N/A	N/A	0%	N/A
Wigeon	0%	N/A	N/A	0%	0%	N/A	N/A	0%
Teal	0%	N/A	N/A	0%	0%	N/A	N/A	0%
Mallard	N/A	0%	N/A	0%	N/A	0%	N/A	0%
Eider	6%	7%	1%	7%	0%	0%	0%	0%
Long-tailed Duck	N/A	1%	0%	1%	N/A	0%	0%	0%
Common Scoter	2%	4%	1%	8%	0%	1%	0%	1%
Velvet Scoter	N/A	*10%	*0%	*12%	N/A	0%	0%	0%
Red-breasted Merganser	N/A	2%	N/A	4%	N/A	0%	N/A	0%
Red-throated Diver	N/A	1%	N/A	4%	N/A	0%	N/A	0%
Great Crested Grebe	N/A	1%	N/A	1%	N/A	0%	N/A	0%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Whooper Swan		1		(2)
Shelduck			1	(2)
Wigeon	11			11
Teal	1			1
Mallard		1		2
Eider	31	40	5	41
Long-tailed Duck		1	0	1
Common Scoter	21	42	8	75
Velvet Scoter		5	0	6
Red-breasted Merganser	(1)	2		3
Red-throated Diver	(2)	2		6
Great Crested Grebe		1		1

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### Five year summary for Redcar and Coatham Sands South

Table5: National and International importance of the site for each species.

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Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Cormorant	2%	3%	2%	3%	1%	1%	1%	1%
Shag	N/A	0%	0%	1%	N/A	0%	0%	0%
Little Egret	*2%	N/A	N/A	*2%	0%	N/A	N/A	0%
Oystercatcher	18%	6%	3%	14%	7%	2%	1%	5%
Ringed Plover	1%	N/A	3%	2%	1%	N/A	1%	1%
Knot	0%	0%	0%	0%	0%	0%	0%	0%
Sanderling	55%	84%	34%	100%	7%	11%	5%	13%
Purple Sandpiper	N/A	N/A	1%	2%	N/A	N/A	0%	0%
Dunlin	0%	0%	0%	0%	0%	0%	0%	0%
Bar-tailed Godwit	1%	0%	1%	2%	0%	0%	0%	1%
Curlew	0%	0%	N/A	1%	0%	0%	N/A	0%
Redshank	0%	18%	1%	18%	0%	9%	1%	9%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Cormorant	6	9	6	11
Shag	(11)	4	1	6
Little Egret	1			1
Oystercatcher	561	193	103	449
Ringed Plover	5		9	8
Knot	10	1	5	12
Sanderling	88	134	55	160
Purple Sandpiper			1	2
Dunlin	11	0	5	11
Bar-tailed Godwit	4	0	3	7
Curlew	5	5		7
Redshank	1	220	14	220

Data provided by the British Trust for Ornithology on behalf of The Wetland Bird Survey.

These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment.

For some species (e.g. whiteing geese) data collected by other surveys may be more appropriate for the purpose of site assessment. Missing or unexpectedly low counts for gulls and terns should be treated with caution - counting these groups is optional and determination of count effort not always possible.

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### Five year summary for Redcar and Coatham Sands South

Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017 represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values

of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site.

Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

	Autumn peak cf National	Winter peak cf National	Spring peak cf National	Annual peak cf National	Autumn peak cf International	Winter peak cf International	Spring peak cf International	Annual peak cf International
Species	Threshold	Threshold	Threshold	Threshold	Threshold	Threshold	Threshold	Threshold
Turnstone	11%	15%	14%	20%	4%	5%	5%	7%
Kittiwake	*10%	N/A	*2%	*14%	0%	N/A	0%	0%
Black-headed Gull	1%	1%	0%	1%	1%	1%	0%	1%
Little Gull	N/A	*2%	N/A	*2%	N/A	0%	N/A	0%
Common Gull	0%	4%	0%	4%	0%	2%	0%	2%
Lesser Black-backed Gull	0%	N/A	N/A	0%	0%	N/A	N/A	0%
Herring Gull	1%	2%	1%	2%	1%	1%	1%	2%
Great Black-backed Gull	2%	2%	0%	3%	0%	0%	0%	1%
Sandwich Tern	*42%	N/A	*18%	*42%	1%	N/A	1%	1%
Common Tern	*54%	N/A	*6%	*58%	2%	N/A	0%	2%
Arctic Tern	*2%	N/A	N/A	*2%	0%	N/A	N/A	0%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Turnstone	55	70	65	94
Kittiwake	5		1	7
Black-headed Gull	143	153	5	159
Little Gull		1		1
Common Gull	8	313	2	313
Lesser Black-backed Gull	2			2
Herring Gull	60	126	95	159
Great Black-backed Gull	12	17	3	26
Sandwich Tern	21		9	21
Common Tern	27		3	29
Arctic Tern	1			1

Data provided by the British Trust for Ornithology on behalf of The Wetland Bird Survey.

These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment.

Missing or unexpectedly low counts for gulls and terns should be treated with caution - counting these groups is optional and determination of count effort not always possible.





Table1: Total Counts - All Species Combined.

Peak monthly total = maximum of the sum of the counts of all species within each month. Seasonal peaks = sum of the maximum counts of for each species within each Season.

Year	Peak M Total	Aonthly	Autumn Peak	Winter Peak	Spring Peak
12/13	192	(JAN)	74	285	102
13/14	153	(FEB)	172	304	44
14/15	181	(JAN)	88	283	73
15/16	94	(MAR)	130	125	71
16/17	61	(FEB)	79	90	10
MEAN		136	109	217	60



Table2: Five-year average monthly counts of each species.

Figure in parentheses give number of complete and incomplete counts upon which the average is based. Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mute Swan	0(5,.)	0(5,.)	0(5,.)	0(5,.)	2(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Canada Goose	5(5,.)	2(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	1(5,.)	4(5,.)	3(5,.)	4(5,.)
Shelduck	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	1(5,.)	1(5,.)	6(5,.)	4(5,.)	1(5,.)
Wigeon	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Gadwall	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	1(5,.)	1(5,.)	0(5,.)	2(5,.)	0(5,.)	0(5,.)	0(5,.)
Teal	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	2(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Mallard	0(5,.)	1(5,.)	0(5,.)	0(5,.)	1(5,.)	1(5,.)	2(5,.)	2(5,.)	1(5,.)	0(5,.)	1(5,.)	0(5,.)
Pochard	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Tufted Duck	0(5,.)	0(5,.)	0(5,.)	2(5,.)	1(5,.)	1(5,.)	1(5,.)	1(5,.)	3(5,.)	2(5,.)	1(5,.)	1(5,.)
Little Grebe	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	1(5,.)	1(5,.)	0(5,.)	0(5,.)
Little Egret	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Grey Heron	1(5,.)	0(5,.)	1(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Moorhen	1(5,.)	0(5,.)	1(5,.)	1(5,.)	1(5,.)	1(5,.)	1(5,.)	0(5,.)	1(5,.)	0(5,.)	0(5,.)	0(5,.)
Coot	1(5,.)	1(5,.)	0(5,.)	0(5,.)	1(5,.)	1(5,.)	2(5,.)	3(5,.)	2(5,.)	3(5,.)	1(5,.)	1(5,.)
Oystercatcher	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Lapwing	19(5,.)	16(5,.)	6(5,.)	0(5,.)	2(5,.)	0(5,.)	7(5,.)	8(5,.)	1(5,.)	0(5,.)	0(5,.)	1(5,.)
Curlew	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Greenshank	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Redshank	0(5,.)	0(5,.)	1(5,.)	31(5,.)	26(5,.)	17(5,.)	58(5,.)	61(5,.)	20(5,.)	7(5,.)	0(5,.)	0(5,.)
Black-headed Gull	6(5,.)	3(5,.)	8(5,.)	12(5,.)	14(5,.)	10(4,.)	6(4,.)	5(5,.)	4(5,.)	2(4,.)	1(4,.)	3(5,.)
Common Gull	0(5,.)	0(5,.)	1(5,.)	7(5,.)	39(5,.)	15(4,.)	15(4,.)	0(5,.)	5(5,.)	1(4,.)	0(4,.)	0(5,.)
Lesser Black-backed Gull	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,.)	0(4,.)	0(5,.)	0(5,.)	0(4,.)	0(4,.)	0(5,.)
Herring Gull	9(5,.)	2(5,.)	2(5,.)	1(5,.)	9(5,.)	3(4,.)	2(4,.)	1(5,.)	5(5,.)	18(4,.)	13(4,.)	14(5,.)
Great Black-backed Gull	0(5,.)	0(5,.)	0(5,.)	0(5,.)	1(5,.)	2(4,.)	0(4,.)	0(5,.)	0(5,.)	1(4,.)	1(4,.)	0(5,.)





Table3: Five-year peak monthly counts of each species. The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mute Swan	2	1	0	2	4	0	1	1	2	2	0	1
Canada Goose	12	5	0	1	0	0	0	0	5	7	6	15
Shelduck	2	2	0	0	0	0	0	2	4	11	8	4
Wigeon	0	0	0	2	0	0	0	0	0	0	0	0
Gadwall	0	0	0	0	0	3	3	1	12	0	0	0
Teal	0	0	0	2	0	10	0	0	0	2	0	0
Mallard	0	2	2	2	3	2	3	8	3	1	2	1
Pochard	0	0	0	0	0	0	0	0	1	0	1	0
Tufted Duck	0	0	1	5	2	2	5	2	7	4	1	3
Little Grebe	0	0	1	1	0	1	0	0	2	2	0	0
Little Egret	1	0	1	1	0	0	0	0	0	0	0	0
Grey Heron	1	1	3	0	2	0	2	0	0	1	0	0
Moorhen	2	1	2	2	2	2	2	1	1	1	0	1
Coot	2	2	2	2	4	3	4	6	5	6	2	2
Oystercatcher	0	0	0	0	0	0	2	2	0	0	0	0
Lapwing	52	61	28	1	10	1	25	34	4	0	2	5
Curlew	0	0	0	0	0	1	0	2	0	0	0	0
Greenshank	0	2	0	0	0	0	0	0	0	0	0	0
Redshank	0	0	3	110	77	85	175	180	71	35	0	0
Black-headed Gull	15	10	20	32	35	30	23	21	9	3	3	6
Common Gull	0	0	3	16	130	55	55	1	18	3	0	2
Lesser Black-backed Gull	1	0	0	0	0	0	0	0	0	0	0	0
Herring Gull	18	6	5	3	30	5	8	4	14	32	42	30
Great Black-backed Gull	0	0	0	0	4	6	0	0	0	2	2	1





### Table4a: Five-year autumn peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between July and October for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

						Mean of
Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Peaks
Mute Swan	2 (JUL)	1 (AUG)	2 (OCT)	0	0	1
Canada Goose	2 (JUL)	4 (AUG)	4 (JUL)	7 (JUL)	12 (JUL)	6
Shelduck	0	0	0	2 (JUL)	2 (AUG)	1
Wigeon	0	0	0	0	2 (OCT)	0
Teal	0	0	0	0	2 (OCT)	0
Mallard	2 (AUG)	0	2 (SEP)	1 (AUG)	0	1
Tufted Duck	0	4 (OCT)	5 (OCT)	1 (OCT)	0	2
Little Grebe	0	0	1 (SEP)	1 (OCT)	0	0
Little Egret	0	0	0	1 (JUL)	1 (SEP)	0
Grey Heron	1 (JUL)	0	3 (SEP)	1 (JUL)	0	1
Moorhen	2 (SEP)	2 (OCT)	0	2 (SEP)	2 (JUL)	2
Coot	0	0	2 (AUG)	2 (AUG)	2 (JUL)	1
Lapwing	1 (JUL)	17 (AUG)	37 (JUL)	61 (AUG)	3 (JUL)	24
Greenshank	0	0	0	0	2 (AUG)	0
Redshank	26 (OCT)	110 (OCT)	8 (OCT)	0	10 (OCT)	31
Black-headed Gull	20 (SEP)	12 (OCT)	18 (SEP)	32 (OCT)	14 (OCT)	19
Common Gull	12 (OCT)	3 (SEP)	2 (SEP)	6 (OCT)	16 (OCT)	8
Lesser Black-backed Gull	0	1 (JUL)	0	0	0	0
Herring Gull	6 (AUG)	18 (JUL)	4 (JUL)	13 (JUL)	11 (JUL)	10





Table4b: Five-year winter peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between November and March for the winter in question and the species in

question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question. Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Mute Swan	2 (MAR)	4 (NOV)	2 (NOV)	3 (NOV)	0	2
Canada Goose	5 (MAR)	0	0	0	0	1
Shelduck	1 (MAR)	2 (FEB)	4 (MAR)	2 (FEB)	1 (FEB)	2
Gadwall	0	3 (DEC)	12 (MAR)	0	0	3
Teal	0	0	0	0	10 (DEC)	2
Mallard	3 (JAN)	8 (FEB)	2 (DEC)	3 (NOV)	0	3
Pochard	1 (MAR)	0	0	0	0	0
Tufted Duck	7 (MAR)	2 (NOV)	1 (NOV)	6 (MAR)	0	3
Little Grebe	1 (DEC)	2 (MAR)	0	1 (MAR)	0	1
Grey Heron	0	0	0	0	2 (NOV)	0
Moorhen	2 (JAN)	2 (NOV)	2 (NOV)	2 (DEC)	1 (NOV)	2
Coot	2 (MAR)	6 (FEB)	4 (NOV)	5 (MAR)	0	3
Oystercatcher	0	2 (FEB)	2 (JAN)	0	0	1
Lapwing	6 (JAN)	7 (FEB)	25 (JAN)	4 (MAR)	34 (FEB)	15
Curlew	0	2 (FEB)	1 (DEC)	0	0	1
Redshank	180 (FEB)	123 (FEB)	108 (JAN)	71 (MAR)	4 (NOV)	97
Black-headed Gull	30 (DEC)	0	35 (NOV)	12 (NOV)	24 (NOV)	20
Common Gull	35 (NOV)	130 (NOV)	55 (DEC)	8 (NOV)	8 (NOV)	47
Herring Gull	4 (MAR)	11 (NOV)	30 (NOV)	5 (DEC)	6 (MAR)	11
Great Black-backed Gull	6 (DEC)	0	0	3 (NOV)	0	2





Table4c: Five-year spring peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between April and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Mute Swan	2 (APR)	0	0	0	0	0
Canada Goose	7 (APR)	6 (APR)	5 (APR)	15 (JUN)	0	7
Shelduck	4 (MAY)	8 (APR)	9 (APR)	11 (APR)	2 (APR)	7
Teal	2 (APR)	0	0	0	0	0
Mallard	2 (MAY)	1 (JUN)	1 (MAY)	1 (MAY)	1 (APR)	1
Pochard	1 (MAY)	0	0	0	0	0
Tufted Duck	4 (APR)	1 (JUN)	3 (JUN)	4 (APR)	0	2
Little Grebe	0	2 (APR)	2 (APR)	0	0	1
Grey Heron	1 (APR)	0	0	0	0	0
Moorhen	0	1 (APR)	1 (JUN)	0	1 (APR)	1
Coot	6 (APR)	3 (APR)	3 (APR)	3 (APR)	0	3
Lapwing	0	5 (JUN)	2 (MAY)	0	0	1
Redshank	35 (APR)	0	0	1 (APR)	0	7
Black-headed Gull	3 (JUN)	1 (JUN)	3 (APR)	6 (JUN)	3 (JUN)	3
Common Gull	3 (APR)	2 (JUN)	0	0	0	1
Herring Gull	32 (APR)	13 (JUN)	42 (MAY)	30 (JUN)	3 (JUN)	24
Great Black-backed Gull	0	1 (JUN)	2 (APR)	0	0	1





### Five year summary for Quarries and Lagoons Table4d: Five-year annual peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Mute Swan	2 (JUL)	4 (NOV)	2 (OCT)	3 (NOV)	0	2
Canada Goose	7 (APR)	6 (APR)	5 (APR)	15 (JUN)	12 (JUL)	9
Shelduck	4 (MAY)	8 (APR)	9 (APR)	11 (APR)	2 (AUG)	7
Wigeon	0	0	0	0	2 (OCT)	0
Gadwall	0	3 (DEC)	12 (MAR)	0	0	3
Teal	2 (APR)	0	0	0	10 (DEC)	2
Mallard	3 (JAN)	8 (FEB)	2 (SEP)	3 (NOV)	1 (APR)	3
Pochard	1 (MAY)	0	0	0	0	0
Tufted Duck	7 (MAR)	4 (OCT)	5 (OCT)	6 (MAR)	0	4
Little Grebe	1 (DEC)	2 (APR)	2 (APR)	1 (OCT)	0	1
Little Egret	0	0	0	1 (JUL)	1 (SEP)	0
Grey Heron	1 (JUL)	0	3 (SEP)	1 (JUL)	2 (NOV)	1
Moorhen	2 (SEP)	2 (OCT)	2 (NOV)	2 (SEP)	2 (JUL)	2
Coot	6 (APR)	6 (FEB)	4 (NOV)	5 (MAR)	2 (JUL)	5
Oystercatcher	0	2 (FEB)	2 (JAN)	0	0	1
Lapwing	6 (JAN)	17 (AUG)	37 (JUL)	61 (AUG)	34 (FEB)	31
Curlew	0	2 (FEB)	1 (DEC)	0	0	1
Greenshank	0	0	0	0	2 (AUG)	0
Redshank	180 (FEB)	123 (FEB)	108 (JAN)	71 (MAR)	10 (OCT)	98
Black-headed Gull	30 (DEC)	12 (OCT)	35 (NOV)	32 (OCT)	24 (NOV)	27
Common Gull	35 (NOV)	130 (NOV)	55 (DEC)	8 (NOV)	16 (OCT)	49
Lesser Black-backed Gull	0	1 (JUL)	0	0	0	0
Herring Gull	32 (APR)	18 (JUL)	42 (MAY)	30 (JUN)	11 (JUL)	27
Great Black-backed Gull	6 (DEC)	1 (JUN)	2 (APR)	3 (NOV)	0	2





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site.

Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Mute Swan	0%	0%	0%	0%	0%	1%	0%	1%
Canada Goose	*12%	*2%	*14%	*18%	N/A	N/A	N/A	N/A
Shelduck	0%	0%	1%	1%	0%	0%	0%	0%
Gadwall	N/A	1%	N/A	1%	N/A	1%	N/A	1%
Teal	0%	0%	0%	0%	0%	0%	0%	0%
Mallard	0%	0%	0%	0%	0%	0%	0%	0%
Tufted Duck	0%	0%	0%	0%	0%	0%	0%	0%
Little Grebe	0%	1%	1%	1%	0%	0%	0%	0%
Grey Heron	0%	0%	0%	0%	0%	0%	0%	0%
Moorhen	0%	0%	0%	0%	0%	0%	0%	0%
Coot	0%	0%	0%	0%	0%	0%	0%	0%
Oystercatcher	N/A	0%	N/A	0%	N/A	0%	N/A	0%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Mute Swan	1	2	0	2
Canada Goose	6	1	7	9
Shelduck	1	2	7	7
Gadwall		3		3
Teal	0	2	0	2
Mallard	1	3	1	3
Tufted Duck	2	3	2	4
Little Grebe	0	1	1	1
Grey Heron	1	0	0	1
Moorhen	2	2	1	2
Coot	1	3	3	5
Oystercatcher		1		1





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values

of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site. Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	umn peak Winter peak Spring peal cf cf rnational International Internation eshold Threshold Threshold		Annual peak cf International Threshold
Lapwing	0%	0%	0%	1%	0%	0%	0%	0%
Curlew	N/A	0%	N/A	0%	N/A	0%	N/A	0%
Redshank	3%	8%	1%	8%	1%	4%	0%	4%
Black-headed Gull	0%	0%	0%	0%	0%	0%	0%	0%
Common Gull	0%	1%	0%	1%	0%	0%	0%	0%
Herring Gull	0%	0%	0%	0%	0%	0%	0%	0%
Great Black-backed Gull	N/A	0%	0%	0%	N/A	0%	0%	0%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Lapwing	24	15	1	31
Curlew		1		1
Redshank	31	97	7	98
Black-headed Gull	19	20	3	27
Common Gull	8	47	1	49
Herring Gull	10	11	24	27
Great Black-backed Gull		2	1	2





 
 Table1: Total Counts - All Species Combined.

 Peak monthly total = maximum of the sum of the counts of all species within each month.
 Seasonal peaks = sum of the maximum counts of for each species within each Season.

Year	Peak M Total	<b>Aonthly</b>	Autumn Peak	Winter Peak	Spring Peak
12/13	768	(OCT)	1117	1126	780
13/14	621	(DEC)	1130	966	597
14/15	826	(NOV)	464	1503	463
15/16	1022	(DEC)	777	1672	277
16/17	1809	(DEC)	613	2026	405
MEAN		1009	820	1459	504



 
 Table2: Five-year average monthly counts of each species.

 Figure in parentheses give number of complete and incomplete counts upon which the average is based.
 Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Pink-footed Goose	0(5,.)	0(5,.)	0(5,.)	0(4,.)	1(5,.)	0(4,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Shelduck	1(5,.)	0(5,.)	0(5,.)	0(4,.)	0(5,.)	0(4,.)	1(5,.)	1(4,1)	1(5,.)	2(4,1)	4(5,.)	3(5,.)
Wigeon	0(5,.)	0(5,.)	0(5,.)	13(4,.)	0(5,.)	0(4,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Teal	0(5,.)	0(5,.)	1(5,.)	1(4,.)	8(5,.)	3(4,.)	2(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Mallard	0(5,.)	0(5,.)	1(5,.)	0(4,.)	3(5,.)	1(4,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Eider	2(5,.)	2(5,.)	0(5,.)	1(4,.)	0(5,.)	1(4,.)	2(5,.)	1(4,1)	5(5,.)	2(4,1)	2(5,.)	3(5,.)
Common Scoter	0(5,.)	0(5,.)	0(5,.)	0(4,.)	0(5,.)	0(4,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Red-breasted Merganser	0(5,.)	0(5,.)	0(5,.)	1(4,.)	1(5,.)	0(4,.)	0(5,.)	1(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Goosander	0(5,.)	0(5,.)	0(5,.)	0(4,.)	0(5,.)	0(4,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
<b>Red-throated Diver</b>	0(5,.)	0(5,.)	0(5,.)	0(4,.)	0(5,.)	1(4,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Great Northern Diver	0(5,.)	0(5,.)	0(5,.)	0(4,.)	0(5,.)	0(4,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Great Crested Grebe	0(5,.)	0(5,.)	0(5,.)	1(4,.)	0(5,.)	2(4,.)	0(5,.)	0(4,1)	0(5,.)	1(4,1)	0(5,.)	0(5,.)
Red-necked Grebe	0(5,.)	0(5,.)	0(5,.)	0(4,.)	0(5,.)	0(4,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Cormorant	36(5,.)	46(5,.)	5(5,.)	27(4,.)	25(5,.)	27(4,.)	14(5,.)	4(4,1)	4(5,.)	9(4,1)	12(5,.)	16(5,.)
Shag	0(5,.)	0(5,.)	0(5,.)	0(4,.)	0(5,.)	0(4,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	2(5,.)
Little Egret	0(5,.)	0(5,.)	0(5,.)	0(4,.)	0(5,.)	0(4,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Grey Heron	0(5,.)	0(5,.)	0(5,.)	0(4,.)	0(5,.)	0(4,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Oystercatcher	48(5,.)	125(5,.)	65(5,.)	91(4,.)	98(5,.)	72(4,.)	66(5,.)	53(4,1)	58(5,.)	17(4,1)	65(5,.)	44(5,.)
Ringed Plover	2(5,.)	8(5,.)	4(5,.)	0(4,.)	0(5,.)	1(4,.)	0(5,.)	4(4,1)	0(5,.)	1(4,1)	51(5,.)	5(5,.)
Golden Plover	0(5,.)	0(5,.)	0(5,.)	1(4,.)	11(5,.)	28(4,.)	0(5,.)	3(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Grey Plover	0(5,.)	1(5,.)	5(5,.)	16(4,.)	16(5,.)	51(4,.)	44(5,.)	43(4,1)	16(5,.)	0(4,1)	0(5,.)	0(5,.)
Lapwing	2(5,.)	30(5,.)	0(5,.)	17(4,.)	198(5,.)	498(4,.)	164(5,.)	196(4,1)	4(5,.)	0(4,1)	0(5,.)	0(5,.)
Knot	0(5,.)	5(5,.)	6(5,.)	22(4,.)	128(5,.)	42(4,.)	40(5,.)	75(4,1)	86(5,.)	9(4,1)	0(5,.)	0(5,.)
Sanderling	1(5,.)	5(5,.)	0(5,.)	0(4,.)	7(5,.)	0(4,.)	2(5,.)	0(4,1)	0(5,.)	0(4,1)	12(5,.)	4(5,.)
Dunlin	0(5,.)	4(5,.)	14(5,.)	5(4,.)	21(5,.)	130(4,.)	73(5,.)	24(4,1)	4(5,.)	0(4,1)	61(5,.)	2(5,.)
Snipe	0(5,.)	0(5,.)	0(5,.)	0(4,.)	0(5,.)	0(4,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Bar-tailed Godwit	0(5,.)	0(5,.)	12(5,.)	13(4,.)	7(5,.)	2(4,.)	34(5,.)	28(4,1)	13(5,.)	12(4,1)	0(5,.)	0(5,.)
Whimbrel	0(5,.)	1(5,.)	0(5,.)	0(4,.)	0(5,.)	0(4,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Curlew	25(5,.)	37(5,.)	49(5,.)	26(4,.)	13(5,.)	10(4,.)	10(5,.)	8(4,1)	18(5,.)	8(4,1)	0(5,.)	0(5,.)
Common Sandpiper	0(5,.)	1(5,.)	0(5,.)	0(4,.)	0(5,.)	0(4,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Redshank	8(5,.)	50(5,.)	55(5,.)	56(4,.)	124(5,.)	84(4,.)	77(5,.)	43(4,1)	18(5,.)	52(4,1)	1(5,.)	0(5,.)
Turnstone	1(5,.)	9(5,.)	7(5,.)	10(4,.)	13(5,.)	19(4,.)	6(5,.)	11(4,1)	2(5,.)	1(4,1)	1(5,.)	1(5,.)
Kittiwake	0(5,.)	0(5,.)	0(5,.)	0(4,.)	0(5,.)	0(4,.)	0(5,.)	0(4,1)	0(5,.)	1(4,1)	1(5,.)	0(5,.)
Black-headed Gull	25(5,.)	4(5,.)	8(5,.)	4(4,.)	14(5,.)	13(4,.)	25(5,.)	39(4,1)	4(5,.)	1(4,1)	0(5,.)	6(5,.)
Common Gull	33(5,.)	0(5,.)	1(5,.)	3(4,.)	4(5,.)	1(4,.)	4(5,.)	3(4,1)	1(5,.)	0(4,1)	0(5,.)	0(5,.)

Data provided by the British Trust for Omithology on behalf of The Wetland Bird Survey. These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment. Missing or unexpectedly low counts for gulls and terms should be treated with caution - counting these groups is optional and determination of count effort not always possible.

The Wetland Bird Survey is a partnership jointly funded by the British Trust for Ornithology, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee, in association with the Wildfowl and Wetlands Trust, with fieldwork conducted by volunteers.



Table2: Five-year average monthly counts of each species.

Figure in parentheses give number of complete and incomplete counts upon which the average is based. Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Lesser Black-backed Gull	0(5,.)	0(5,.)	0(5,.)	0(4,.)	0(5,.)	0(4,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(5,.)	0(5,.)
Herring Gull	50(5,.)	53(5,.)	19(5,.)	37(4,.)	19(5,.)	17(4,.)	12(5,.)	22(4,1)	13(5,.)	54(4,1)	18(5,.)	110(5,.)
Great Black-backed Gull	18(5,.)	35(5,.)	4(5,.)	104(4,.)	5(5,.)	2(4,.)	7(5,.)	7(4,1)	1(5,.)	0(4,1)	1(5,.)	8(5,.)
Sandwich Tern	33(4,.)	5(3,.)	6(5,.)	0(3,.)	0(3,.)	0(1,.)	0(3,.)	0(3,.)	0(2,.)	0(2,.)	3(5,.)	17(5,.)
Common Tern	3(4,.)	18(3,.)	3(5,.)	0(3,.)	0(3,.)	0(1,.)	0(3,.)	0(3,.)	0(2,.)	0(2,.)	0(5,.)	2(5,.)
Arctic Tern	0(4,.)	0(3,.)	0(5,.)	0(3,.)	0(3,.)	0(1,.)	0(3,.)	0(3,.)	0(2,.)	0(2,.)	0(5,.)	0(5,.)





Table3: Five-year peak monthly counts of each species. The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Pink-footed Goose	0	0	0	0	6	0	0	0	0	0	0	0
Shelduck	4	2	0	0	0	0	3	2	4	6	6	13
Wigeon	0	0	0	50	0	1	0	0	0	0	0	0
Teal	0	0	3	2	21	6	6	1	0	0	0	0
Mallard	0	0	5	0	13	3	0	0	0	0	2	0
Eider	11	8	1	1	0	2	5	2	13	6	5	5
Common Scoter	0	0	0	0	0	0	0	0	0	0	2	0
<b>Red-breasted Merganser</b>	0	0	0	3	6	0	1	3	1	0	0	0
Goosander	0	0	0	0	0	0	0	0	1	0	0	0
<b>Red-throated Diver</b>	0	0	0	1	0	2	1	0	0	0	0	0
Great Northern Diver	0	0	0	0	0	0	0	1	1	0	0	0
Great Crested Grebe	2	0	0	2	0	6	0	0	1	4	1	0
Red-necked Grebe	0	0	0	0	0	0	0	0	1	0	0	0
Cormorant	69	117	11	39	91	50	51	10	15	23	29	32
Shag	0	0	1	0	0	0	0	0	0	0	0	10
Little Egret	0	0	0	0	0	1	0	0	0	0	0	0
Grey Heron	0	1	0	0	0	0	0	0	0	0	1	1
Oystercatcher	102	235	133	170	187	93	85	64	120	50	170	120
<b>Ringed Plover</b>	11	30	21	0	0	2	0	16	0	6	130	23
Golden Plover	0	1	0	2	56	113	1	12	0	0	0	0
Grey Plover	0	3	18	31	56	88	137	83	42	1	0	0
Lapwing	10	150	2	47	320	740	700	350	22	0	0	1
Knot	0	27	28	30	550	146	64	240	246	36	0	0
Sanderling	7	22	0	0	36	0	12	1	0	0	61	21
Dunlin	0	20	66	14	73	433	350	76	17	0	230	6
Snipe	0	0	0	1	1	0	0	0	0	0	0	0
Bar-tailed Godwit	0	0	39	43	22	9	61	48	33	49	0	0
Whimbrel	1	3	0	0	0	0	0	0	0	0	1	0
Curlew	63	96	125	34	23	20	15	18	36	17	0	0
Common Sandpiper	0	3	0	0	0	0	0	0	0	0	0	0
Redshank	16	77	105	90	155	214	170	65	35	73	3	0
Turnstone	2	28	12	21	29	30	12	32	5	3	6	4
Kittiwake	1	0	0	0	0	0	0	0	0	2	4	0
Black-headed Gull	53	8	22	10	43	40	60	70	14	3	2	20
Common Gull	154	0	5	10	17	2	22	5	2	0	1	0

Data provided by the British Trust for Omithology on behalf of The Wetland Bird Survey. These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment. Missing or unexpectedly low counts for gulls and terms should be treated with caution - counting these groups is optional and determination of count effort not always possible.

The Wetland Bird Survey is a partnership jointly funded by the British Trust for Ornithology, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee, in association with the Wildfowl and Wetlands Trust, with fieldwork conducted by volunteers.





 Table3: Five-year peak monthly counts of each species.

 The value reported represents the highest count obtained over the five-year period during the month in question and the species in guestion.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Lesser Black-backed Gull	0	0	0	0	0	0	0	0	0	0	2	0
Herring Gull	99	150	30	92	34	34	25	70	22	102	32	280
Great Black-backed Gull	46	109	8	400	14	3	25	10	5	1	2	35
Sandwich Tern	120	10	26	0	0	0	0	0	0	0	14	62
Common Tern	8	41	9	0	0	0	0	0	0	0	0	6
Arctic Tern	1	0	0	0	0	0	0	0	0	0	0	0




Table4a: Five-year autumn peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between July and October for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

						Mean of
Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Peaks
Shelduck	2 (AUG)	0	4 (JUL)	0	0	1
Wigeon	0	50 (OCT)	0	0	0	10
Teal	0	3 (SEP)	0	0	2 (OCT)	1
Mallard	5 (SEP)	0	0	0	0	1
Eider	1 (AUG)	11 (JUL)	0	1 (OCT)	1 (AUG)	3
<b>Red-breasted Merganser</b>	0	3 (OCT)	0	0	0	1
<b>Red-throated Diver</b>	0	0	0	0	1 (OCT)	0
Great Crested Grebe	0	2 (OCT)	2 (JUL)	0	0	1
Cormorant	57 (JUL)	40 (AUG)	3 (AUG)	117 (AUG)	39 (OCT)	51
Shag	0	0	0	1 (SEP)	0	0
Grey Heron	0	0	1 (AUG)	0	0	0
Oystercatcher	170 (OCT)	176 (AUG)	66 (AUG)	235 (AUG)	95 (SEP)	148
<b>Ringed Plover</b>	5 (AUG)	30 (AUG)	1 (AUG)	0	21 (SEP)	11
Golden Plover	0	0	0	2 (OCT)	2 (OCT)	1
Grey Plover	22 (OCT)	18 (SEP)	3 (AUG)	4 (SEP)	31 (OCT)	16
Lapwing	0	150 (AUG)	10 (JUL)	22 (OCT)	47 (OCT)	46
Knot	30 (OCT)	30 (OCT)	28 (SEP)	0	27 (AUG)	23
Sanderling	3 (AUG)	0	0	0	22 (AUG)	5
Dunlin	20 (AUG)	1 (AUG)	1 (AUG)	3 (SEP)	66 (SEP)	18
Snipe	0	0	0	0	1 (OCT)	0
<b>Bar-tailed Godwit</b>	39 (SEP)	43 (OCT)	0	2 (SEP)	15 (SEP)	20
Whimbrel	1 (JUL)	0	0	0	3 (AUG)	1
Curlew	81 (SEP)	125 (SEP)	96 (AUG)	34 (OCT)	15 (SEP)	70
Common Sandpiper	0	0	0	0	3 (AUG)	1
Redshank	41 (AUG)	105 (SEP)	77 (AUG)	90 (OCT)	57 (SEP)	74
Turnstone	28 (AUG)	10 (SEP)	12 (AUG)	15 (OCT)	12 (SEP)	15
Kittiwake	0	0	0	1 (JUL)	0	0
Black-headed Gull	10 (OCT)	40 (JUL)	53 (JUL)	8 (AUG)	25 (JUL)	27
Common Gull	10 (OCT)	154 (JUL)	6 (JUL)	2 (OCT)	1 (SEP)	35
Herring Gull	150 (AUG)	30 (SEP)	73 (AUG)	99 (JUL)	83 (JUL)	87





## Table4a: Five-year autumn peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between July and October for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean of Peaks
Great Black-backed Gull	400 (OCT)	109 (AUG)	12 (AUG)	15 (JUL)	9 (JUL)	109
Sandwich Tern	0	0	10 (AUG)	120 (JUL)	26 (SEP)	31
Common Tern	41 (AUG)	0	6 (AUG)	6 (AUG)	9 (SEP)	12
Arctic Tern	1 (JUL)	0	0	0	0	0





Table4b: Five-year winter peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between November and March for the winter in question and the species in

question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question. Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Pink-footed Goose	0	0	6 (NOV)	0	0	1
Shelduck	2 (FEB)	0	4 (MAR)	0	3 (JAN)	2
Wigeon	0	1 (DEC)	0	0	0	0
Teal	8 (NOV)	21 (NOV)	4 (JAN)	6 (DEC)	8 (NOV)	9
Mallard	13 (NOV)	0	0	0	0	3
Eider	13 (MAR)	1 (FEB)	0	11 (MAR)	5 (JAN)	6
<b>Red-breasted Merganser</b>	2 (FEB)	1 (JAN)	0	1 (MAR)	6 (NOV)	2
Goosander	0	0	0	0	1 (MAR)	0
<b>Red-throated Diver</b>	0	0	0	2 (DEC)	2 (DEC)	1
Great Northern Diver	0	0	0	1 (FEB)	0	0
Great Crested Grebe	0	0	0	6 (DEC)	1 (MAR)	1
Red-necked Grebe	1 (MAR)	0	0	0	0	0
Cormorant	28 (DEC)	50 (DEC)	51 (JAN)	91 (NOV)	22 (NOV)	48
Little Egret	0	0	0	0	1 (DEC)	0
Oystercatcher	150 (NOV)	85 (JAN)	61 (JAN)	93 (DEC)	187 (NOV)	115
<b>Ringed Plover</b>	0	0	16 (FEB)	0	2 (DEC)	4
Golden Plover	0	1 (NOV)	0	113 (DEC)	1 (JAN)	23
Grey Plover	18 (FEB)	44 (DEC)	69 (FEB)	137 (JAN)	88 (DEC)	71
Lapwing	320 (NOV)	400 (DEC)	350 (FEB)	550 (DEC)	740 (DEC)	472
Knot	240 (FEB)	45 (JAN)	550 (NOV)	246 (MAR)	146 (DEC)	245
Sanderling	1 (FEB)	12 (JAN)	36 (NOV)	0	0	10
Dunlin	15 (NOV)	0	15 (NOV)	86 (DEC)	433 (DEC)	110
Snipe	0	0	0	0	1 (NOV)	0
Bar-tailed Godwit	48 (FEB)	26 (JAN)	33 (FEB)	61 (JAN)	36 (JAN)	41
Curlew	23 (NOV)	36 (MAR)	18 (FEB)	15 (JAN)	21 (NOV)	23
Redshank	120 (NOV)	170 (JAN)	117 (JAN)	155 (NOV)	214 (DEC)	155
Turnstone	29 (NOV)	10 (NOV)	5 (NOV)	32 (FEB)	30 (DEC)	21
Black-headed Gull	60 (JAN)	35 (FEB)	70 (FEB)	5 (DEC)	22 (NOV)	38
Common Gull	2 (DEC)	5 (FEB)	3 (FEB)	22 (JAN)	17 (NOV)	10





### Table4b: Five-year winter peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between November and March for the winter in question and the species in

question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question. Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Herring Gull	25 (DEC)	13 (JAN)	70 (FEB)	34 (NOV)	34 (DEC)	35
Great Black-backed Gull	8 (FEB)	10 (FEB)	25 (JAN)	5 (NOV)	5 (MAR)	11





### Five year summary for Bran Sands North Table4c: Five-year spring peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between April and June for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Shelduck	5 (MAY)	5 (MAY)	13 (JUN)	2 (MAY)	(2) (APR)	6
Mallard	0	0	2 (MAY)	0	(0)	1
Eider	5 (JUN)	0	1 (APR)	6 (APR)	4 (JUN)	3
Common Scoter	0	0	0	0	2 (MAY)	0
Great Crested Grebe	0	0	4 (APR)	1 (APR)	1 (MAY)	1
Cormorant	12 (MAY)	32 (JUN)	11 (JUN)	5 (JUN)	32 (JUN)	18
Shag	0	0	10 (JUN)	0	(0)	3
Grey Heron	0	0	0	0	1 (MAY)	0
Oystercatcher	170 (MAY)	62 (JUN)	78 (MAY)	23 (JUN)	120 (JUN)	91
<b>Ringed Plover</b>	50 (MAY)	130 (MAY)	5 (MAY)	23 (JUN)	72 (MAY)	56
Grey Plover	0	0	0	1 (APR)	(0)	0
Lapwing	0	0	1 (JUN)	0	(0)	0
Knot	0	0	0	36 (APR)	(0)	9
Sanderling	61 (MAY)	0	0	21 (JUN)	(0)	21
Dunlin	230 (MAY)	44 (MAY)	0	5 (JUN)	29 (MAY)	62
Bar-tailed Godwit	49 (APR)	0	0	0	(0)	12
Whimbrel	1 (MAY)	0	0	0	1 (MAY)	0
Curlew	17 (APR)	0	1 (APR)	7 (APR)	(15) (APR)	8
Redshank	73 (APR)	2 (APR)	63 (APR)	71 (APR)	3 (MAY)	42
Turnstone	0	2 (APR)	3 (APR)	6 (MAY)	1 (MAY)	2
Kittiwake	0	0	2 (APR)	0	4 (MAY)	1
Black-headed Gull	0	3 (APR)	20 (JUN)	1 (JUN)	11 (JUN)	7
Common Gull	0	0	0	1 (MAY)	(0)	0
Lesser Black-backed Gull	0	0	0	0	2 (MAY)	0
Herring Gull	102 (APR)	280 (JUN)	176 (JUN)	53 (APR)	82 (JUN)	139
Great Black-backed Gull	1 (MAY)	35 (JUN)	5 (JUN)	1 (JUN)	1 (MAY)	9
Sandwich Tern	1 (MAY)	0	62 (JUN)	14 (MAY)	22 (JUN)	20
Common Tern	3 (JUN)	2 (JUN)	6 (JUN)	0	0	2





#### Table4d: Five-year annual peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Pink-footed Goose	0	0	6 (NOV)	0	0	1
Shelduck	5 (MAY)	5 (MAY)	13 (JUN)	2 (MAY)	3 (JAN)	6
Wigeon	0	50 (OCT)	0	0	0	10
Teal	8 (NOV)	21 (NOV)	4 (JAN)	6 (DEC)	8 (NOV)	9
Mallard	13 (NOV)	0	2 (MAY)	0	0	3
Eider	13 (MAR)	11 (JUL)	1 (APR)	11 (MAR)	5 (JAN)	8
Common Scoter	0	0	0	0	2 (MAY)	0
<b>Red-breasted Merganser</b>	2 (FEB)	3 (OCT)	0	1 (MAR)	6 (NOV)	2
Goosander	0	0	0	0	1 (MAR)	0
<b>Red-throated Diver</b>	0	0	0	2 (DEC)	2 (DEC)	1
Great Northern Diver	0	0	0	1 (FEB)	0	0
Great Crested Grebe	0	2 (OCT)	4 (APR)	6 (DEC)	1 (MAY)	3
Red-necked Grebe	1 (MAR)	0	0	0	0	0
Cormorant	57 (JUL)	50 (DEC)	51 (JAN)	117 (AUG)	39 (OCT)	63
Shag	0	0	10 (JUN)	1 (SEP)	0	2
Little Egret	0	0	0	0	1 (DEC)	0
Grey Heron	0	0	1 (AUG)	0	1 (MAY)	0
Oystercatcher	170 (OCT)	176 (AUG)	78 (MAY)	235 (AUG)	187 (NOV)	169
Ringed Plover	50 (MAY)	130 (MAY)	16 (FEB)	23 (JUN)	72 (MAY)	58
Golden Plover	0	1 (NOV)	0	113 (DEC)	2 (OCT)	23
Grey Plover	22 (OCT)	44 (DEC)	69 (FEB)	137 (JAN)	88 (DEC)	72
Lapwing	320 (NOV)	400 (DEC)	350 (FEB)	550 (DEC)	740 (DEC)	472
Knot	240 (FEB)	45 (JAN)	550 (NOV)	246 (MAR)	146 (DEC)	245
Sanderling	61 (MAY)	12 (JAN)	36 (NOV)	21 (JUN)	22 (AUG)	30
Dunlin	230 (MAY)	44 (MAY)	15 (NOV)	86 (DEC)	433 (DEC)	162
Snipe	0	0	0	0	1 (OCT)	0
Bar-tailed Godwit	49 (APR)	43 (OCT)	33 (FEB)	61 (JAN)	36 (JAN)	44
Whimbrel	1 (JUL)	0	0	0	3 (AUG)	1
Curlew	81 (SEP)	125 (SEP)	96 (AUG)	34 (OCT)	21 (NOV)	71
Common Sandpiper	0	0	0	0	3 (AUG)	1
Redshank	120 (NOV)	170 (JAN)	117 (JAN)	155 (NOV)	214 (DEC)	155





# Table4d: Five-year annual peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Turnstone	29 (NOV)	10 (SEP)	12 (AUG)	32 (FEB)	30 (DEC)	23
Kittiwake	0	0	2 (APR)	1 (JUL)	4 (MAY)	1
Black-headed Gull	60 (JAN)	40 (JUL)	70 (FEB)	8 (AUG)	25 (JUL)	41
Common Gull	10 (OCT)	154 (JUL)	6 (JUL)	22 (JAN)	17 (NOV)	42
Lesser Black-backed Gull	0	0	0	0	2 (MAY)	0
Herring Gull	150 (AUG)	280 (JUN)	176 (JUN)	99 (JUL)	83 (JUL)	158
Great Black-backed Gull	400 (OCT)	109 (AUG)	25 (JAN)	15 (JUL)	9 (JUL)	112
Sandwich Tern	1 (MAY)	0	62 (JUN)	120 (JUL)	26 (SEP)	42
Common Tern	41 (AUG)	2 (JUN)	6 (AUG)	6 (AUG)	9 (SEP)	13
Arctic Tern	1 (JUL)	0	0	0	0	0





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site.

Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Pink-footed Goose	N/A	0%	N/A	0%	N/A	0%	N/A	0%
Shelduck	0%	0%	1%	1%	0%	0%	0%	0%
Wigeon	0%	0%	N/A	0%	0%	0%	N/A	0%
Teal	0%	0%	N/A	0%	0%	0%	N/A	0%
Mallard	0%	0%	0%	0%	0%	0%	0%	0%
Eider	1%	1%	1%	1%	0%	0%	0%	0%
<b>Red-breasted Merganser</b>	1%	2%	N/A	2%	0%	0%	N/A	0%
<b>Red-throated Diver</b>	0%	1%	N/A	1%	0%	0%	N/A	0%
Great Crested Grebe	1%	1%	1%	2%	0%	0%	0%	0%
Cormorant	15%	14%	5%	18%	4%	4%	2%	5%
Shag	0%	N/A	0%	0%	0%	N/A	0%	0%
Oystercatcher	5%	4%	3%	5%	2%	1%	1%	2%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Pink-footed Goose		1		1
Shelduck	1	2	6	6
Wigeon	10	0		10
Teal	1	9		9
Mallard	1	3	1	3
Eider	3	6	3	8
Red-breasted Merganser	1	2		2
Red-throated Diver	0	1		1
Great Crested Grebe	1	1	1	3
Cormorant	51	48	18	63
Shag	0		3	2
Oystercatcher	148	115	91	169





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values

of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site. Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Ringed Plover	3%	1%	16%	17%	2%	1%	8%	8%
Golden Plover	0%	1%	N/A	1%	0%	0%	N/A	0%
Grey Plover	4%	17%	0%	17%	1%	3%	0%	3%
Lapwing	1%	8%	0%	8%	0%	2%	0%	2%
Knot	1%	8%	0%	8%	1%	5%	0%	5%
Sanderling	3%	6%	13%	19%	0%	1%	2%	3%
Dunlin	1%	3%	2%	5%	0%	1%	0%	1%
Bar-tailed Godwit	5%	11%	3%	12%	2%	3%	1%	4%
Whimbrel	*2%	N/A	*0%	*2%	0%	N/A	0%	0%
Curlew	5%	2%	1%	5%	1%	0%	0%	1%
Common Sandpiper	*2%	N/A	N/A	*2%	0%	N/A	N/A	0%
Redshank	6%	13%	4%	13%	3%	6%	2%	6%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Ringed Plover	11	4	56	58
Golden Plover	1	23		23
Grey Plover	16	71	0	72
Lapwing	46	472	0	472
Knot	23	245	9	245
Sanderling	5	10	21	30
Dunlin	18	110	62	162
Bar-tailed Godwit	20	41	12	44
Whimbrel	1		0	1
Curlew	70	23	8	71
Common Sandpiper	1			1
Redshank	74	155	42	155

Data provided by the British Trust for Ornithology on behalf of The Wetland Bird Survey.

These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment.

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Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site.

Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Turnstone	3%	4%	0%	5%	1%	2%	0%	2%
Kittiwake	*0%	N/A	*2%	*2%	0%	N/A	0%	0%
Black-headed Gull	0%	0%	0%	0%	0%	0%	0%	0%
Common Gull	1%	0%	0%	1%	0%	0%	0%	0%
Herring Gull	1%	0%	2%	2%	1%	0%	1%	2%
Great Black-backed Gull	14%	1%	1%	15%	3%	0%	0%	3%
Sandwich Tern	*62%	N/A	*40%	*84%	2%	N/A	1%	2%
Common Tern	*24%	N/A	*4%	*26%	1%	N/A	0%	1%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Turnstone	15	21	2	23
Kittiwake	0		1	1
Black-headed Gull	27	38	7	41
Common Gull	35	10	0	42
Herring Gull	87	35	139	158
Great Black-backed Gull	109	11	9	112
Sandwich Tern	31		20	42
Common Tern	12		2	13

Data provided by the British Trust for Ornithology on behalf of The Wetland Bird Survey.

These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment.

Missing or unexpectedly low counts for gulls and terms should be treated with caution - counting these groups is optional and determination of count effort not always possible.





 
 Table1: Total Counts - All Species Combined.

 Peak monthly total = maximum of the sum of the counts of all species within each month.
 Seasonal peaks = sum of the maximum counts of for each species within each Season.

Year	Peak M Total	<b>Aonthly</b>	Autumn Peak	Winter Peak	Spring Peak
12/13	890	(DEC)	460	1489	432
13/14	1836	(FEB)	666	2277	508
14/15	2120	(MAR)	883	2932	1685
15/16	1205	(DEC)	1712	1667	486
16/17	946	(NOV)	905	1491	278
MEAN		1399	925	1971	678



 
 Table2: Five-year average monthly counts of each species.

 Figure in parentheses give number of complete and incomplete counts upon which the average is based.
 Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mute Swan	0(5,.)	0(5,.)	0(5,.)	1(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Canada Goose	0(5,.)	1(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	1(5,.)	0(5,.)	1(5,.)
Shelduck	15(5,.)	11(5,.)	12(5,.)	12(5,.)	25(4,1)	21(5,.)	42(5,.)	49(5,.)	76(5,.)	46(5,.)	39(5,.)	27(5,.)
Wigeon	0(5,.)	0(5,.)	1(5,.)	1(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Gadwall	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	1(5,.)	4(5,.)	0(5,.)	1(5,.)	1(5,.)	1(5,.)	0(5,.)
Teal	0(5,.)	1(5,.)	56(5,.)	101(5,.)	106(4,1)	129(5,.)	121(5,.)	48(5,.)	57(5,.)	17(5,.)	1(5,.)	0(5,.)
Mallard	1(5,.)	11(5,.)	9(5,.)	9(5,.)	9(4,1)	6(5,.)	9(5,.)	12(5,.)	4(5,.)	2(5,.)	1(5,.)	2(5,.)
Shoveler	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Pochard	0(5,.)	0(5,.)	0(5,.)	0(5,.)	1(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Tufted Duck	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Scaup	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Eider	0(5,.)	0(5,.)	0(5,.)	0(5,.)	1(4,1)	1(5,.)	0(5,.)	0(5,.)	1(5,.)	0(5,.)	0(5,.)	0(5,.)
Long-tailed Duck	0(5,.)	0(5,.)	0(5,.)	0(5,.)	1(4,1)	0(5,.)	1(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Common Scoter	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Goldeneye	0(5,.)	0(5,.)	0(5,.)	2(5,.)	15(4,1)	19(5,.)	24(5,.)	19(5,.)	17(5,.)	5(5,.)	0(5,.)	0(5,.)
Red-breasted Merganser	0(5,.)	0(5,.)	2(5,.)	30(5,.)	40(4,1)	15(5,.)	9(5,.)	26(5,.)	37(5,.)	9(5,.)	2(5,.)	0(5,.)
Red-throated Diver	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	1(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Little Grebe	0(5,.)	0(5,.)	0(5,.)	5(5,.)	11(4,1)	11(5,.)	11(5,.)	9(5,.)	2(5,.)	0(5,.)	0(5,.)	0(5,.)
Great Crested Grebe	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Cormorant	29(5,.)	60(5,.)	48(5,.)	35(5,.)	34(4,1)	17(5,.)	37(5,.)	46(5,.)	23(5,.)	7(5,.)	11(5,.)	10(5,.)
Shag	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Little Egret	0(5,.)	1(5,.)	2(5,.)	8(5,.)	9(4,1)	1(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Grey Heron	0(5,.)	2(5,.)	5(5,.)	4(5,.)	2(4,1)	1(5,.)	1(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Moorhen	0(5,.)	1(5,.)	1(5,.)	1(5,.)	2(4,1)	1(5,.)	2(5,.)	1(5,.)	1(5,.)	0(5,.)	0(5,.)	0(5,.)
Oystercatcher	0(5,.)	4(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	1(5,.)	1(5,.)	2(5,.)	1(5,.)	1(5,.)	0(5,.)
Ringed Plover	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Grey Plover	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Lapwing	4(5,.)	13(5,.)	14(5,.)	25(5,.)	5(4,1)	50(5,.)	2(5,.)	194(5,.)	9(5,.)	6(5,.)	0(5,.)	2(5,.)
Knot	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Dunlin	0(5,.)	10(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Snipe	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Black-tailed Godwit	0(5,.)	1(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Curlew	1(5,.)	0(5,.)	1(5,.)	1(5,.)	1(4,1)	1(5,.)	0(5,.)	1(5,.)	2(5,.)	2(5,.)	1(5,.)	0(5,.)
Common Sandpiper	1(5,.)	2(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Greenshank	0(5,.)	1(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)

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The Wetland Bird Survey is a partnership jointly funded by the British Trust for Ornithology, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee, in association with the Wildfowl and Wetlands Trust, with fieldwork conducted by volunteers.



#### Table2: Five-year average monthly counts of each species.

Figure in parentheses give number of complete and incomplete counts upon which the average is based. Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Redshank	8(5,.)	26(5,.)	41(5,.)	84(5,.)	96(4,1)	102(5,.)	99(5,.)	98(5,.)	60(5,.)	35(5,.)	2(5,.)	7(5,.)
Turnstone	0(5,.)	2(5,.)	2(5,.)	5(5,.)	4(4,1)	2(5,.)	6(5,.)	6(5,.)	4(5,.)	3(5,.)	1(5,.)	0(5,.)
Kittiwake	3(5,.)	4(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	7(5,.)	15(5,.)	11(5,.)
Black-headed Gull	119(5,.)	86(5,.)	97(5,.)	96(5,.)	61(4,1)	104(5,.)	57(5,.)	210(5,.)	172(5,.)	84(5,.)	52(5,.)	72(5,.)
Little Gull	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Common Gull	1(5,.)	23(5,.)	47(5,.)	24(5,.)	168(4,1)	182(5,.)	114(5,.)	202(5,.)	145(5,.)	12(5,.)	1(5,.)	1(5,.)
Lesser Black-backed Gull	1(5,.)	1(5,.)	1(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	1(5,.)	0(5,.)	1(5,.)
Herring Gull	36(5,.)	186(5,.)	65(5,.)	121(5,.)	48(4,1)	189(5,.)	102(5,.)	156(5,.)	264(5,.)	95(5,.)	50(5,.)	332(5,.)
Great Black-backed Gull	2(5,.)	2(5,.)	13(5,.)	5(5,.)	6(4,1)	23(5,.)	4(5,.)	6(5,.)	0(5,.)	2(5,.)	1(5,.)	1(5,.)
Sandwich Tern	1(5,.)	0(5,.)	1(5,.)	0(5,.)	0(3,1)	0(5,.)	0(4,.)	0(5,.)	0(5,.)	0(5,.)	3(5,.)	2(5,.)
Common Tern	8(5,.)	6(5,.)	6(5,.)	0(5,.)	0(3,1)	0(5,.)	0(4,.)	0(5,.)	0(5,.)	0(5,.)	4(5,.)	7(5,.)
Arctic Tern	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(3,1)	0(5,.)	0(4,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Kingfisher	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(5,.)





Table3: Five-year peak monthly counts of each species. The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mute Swan	0	0	0	3	1	0	0	0	0	1	1	0
Canada Goose	0	5	0	0	0	0	0	0	0	6	2	3
Shelduck	29	29	27	24	61	43	113	124	118	86	67	44
Wigeon	0	0	7	2	0	0	0	0	0	0	0	0
Gadwall	0	0	0	0	0	2	14	1	4	4	2	0
Teal	0	3	96	184	337	243	248	104	130	52	3	2
Mallard	6	28	21	16	18	12	22	22	8	4	2	4
Shoveler	0	0	0	0	0	0	0	0	0	2	0	0
Pochard	0	0	0	0	3	0	0	0	0	0	1	0
Tufted Duck	0	0	0	1	1	0	0	0	0	0	0	0
Scaup	0	0	0	1	0	0	0	1	0	0	0	0
Eider	0	0	0	0	2	3	2	1	3	0	0	0
Long-tailed Duck	0	0	0	0	1	2	2	2	0	0	0	0
Common Scoter	0	0	0	0	0	0	0	0	1	0	0	0
Goldeneye	0	0	0	3	18	24	34	28	26	19	0	0
<b>Red-breasted Merganser</b>	0	0	3	42	52	23	17	52	52	16	5	0
<b>Red-throated Diver</b>	0	0	0	0	0	2	2	1	0	0	0	0
Little Grebe	0	0	0	8	26	15	14	14	9	2	0	0
Great Crested Grebe	1	1	1	0	1	0	0	0	1	0	0	1
Cormorant	43	112	59	61	53	28	67	95	44	17	19	21
Shag	0	0	0	0	0	0	0	0	1	0	0	0
Little Egret	0	3	6	16	19	2	0	0	0	0	0	0
Grey Heron	1	9	9	10	4	3	5	1	1	1	1	1
Moorhen	1	6	2	2	3	2	6	2	1	1	1	1
Oystercatcher	1	18	0	2	1	0	3	7	3	3	2	1
<b>Ringed Plover</b>	0	0	0	0	0	0	1	0	0	0	0	0
Grey Plover	0	0	0	0	0	0	0	0	0	0	1	0
Lapwing	11	30	32	110	12	190	11	620	28	30	1	4
Knot	0	0	0	0	1	0	0	0	0	0	0	0
Dunlin	0	47	1	1	0	0	0	0	1	0	2	0
Snipe	0	0	0	1	0	0	0	0	1	2	0	0
Black-tailed Godwit	0	6	0	0	0	0	0	0	0	0	0	0
Curlew	1	1	1	2	2	4	2	3	3	5	3	1
Common Sandpiper	3	4	0	0	0	0	0	0	0	0	0	1
Greenshank	0	3	1	1	1	0	0	0	0	0	0	0





### Five year summary for Bran Sand South Table3: Five-year peak monthly counts of each species.

The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Redshank	27	34	73	120	115	190	180	190	160	105	4	35
Turnstone	0	6	7	11	16	11	13	11	9	11	4	1
Kittiwake	6	12	0	0	0	0	0	0	0	16	31	23
Black-headed Gull	230	170	180	230	80	230	140	270	360	110	90	130
Little Gull	1	0	0	0	0	0	0	0	0	0	1	0
Common Gull	2	95	190	50	470	440	360	780	440	20	4	3
Lesser Black-backed Gull	2	3	5	0	0	0	0	0	2	3	1	2
Herring Gull	130	740	140	280	70	620	160	270	780	190	80	1450
Great Black-backed Gull	4	4	60	20	19	35	14	14	0	6	2	4
Sandwich Tern	4	0	4	0	0	0	0	0	0	0	17	12
Common Tern	22	20	30	0	0	0	0	0	0	0	17	14
Arctic Tern	1	0	0	0	0	0	0	0	0	0	0	0
Kingfisher	0	0	0	1	1	0	0	0	0	0	0	0





### Table4a: Five-year autumn peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between July and October for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

						Mean
Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	or Peaks
Mute Swan	3 (OCT)	0	0	0	0	1
Canada Goose	0	0	0	0	5 (AUG)	1
Shelduck	29 (JUL)	14 (JUL)	26 (JUL)	27 (SEP)	5 (SEP)	20
Wigeon	0	0	0	2 (OCT)	7 (SEP)	2
Teal	24 (OCT)	184 (OCT)	90 (OCT)	124 (OCT)	88 (SEP)	102
Mallard	28 (AUG)	17 (AUG)	21 (SEP)	14 (SEP)	7 (OCT)	17
Tufted Duck	0	0	0	0	1 (OCT)	0
Scaup	1 (OCT)	1 (OCT)	0	0	0	0
Goldeneye	3 (OCT)	2 (OCT)	3 (OCT)	0	3 (OCT)	2
Red-breasted Merganser	34 (OCT)	41 (OCT)	42 (OCT)	29 (OCT)	5 (OCT)	30
Little Grebe	0	8 (OCT)	6 (OCT)	3 (OCT)	6 (OCT)	5
Great Crested Grebe	0	0	1 (JUL)	0	1 (AUG)	0
Cormorant	23 (OCT)	59 (AUG)	112 (AUG)	56 (SEP)	63 (AUG)	63
Little Egret	3 (OCT)	5 (OCT)	14 (OCT)	16 (OCT)	4 (SEP)	8
Grey Heron	1 (JUL)	2 (SEP)	10 (OCT)	9 (SEP)	9 (AUG)	6
Moorhen	2 (OCT)	2 (SEP)	6 (AUG)	0	2 (SEP)	2
Oystercatcher	0	0	0	18 (AUG)	2 (OCT)	4
Lapwing	24 (AUG)	30 (AUG)	22 (SEP)	110 (OCT)	32 (SEP)	44
Dunlin	1 (AUG)	0	0	47 (AUG)	1 (AUG)	10
Snipe	0	0	0	0	1 (OCT)	0
Black-tailed Godwit	0	6 (AUG)	0	0	0	1
Curlew	1 (OCT)	1 (JUL)	2 (OCT)	1 (JUL)	1 (JUL)	1
Common Sandpiper	4 (AUG)	1 (JUL)	3 (JUL)	1 (AUG)	2 (AUG)	2
Greenshank	0	0	0	1 (SEP)	3 (AUG)	1
Redshank	70 (OCT)	76 (OCT)	80 (OCT)	74 (OCT)	120 (OCT)	84
Turnstone	6 (AUG)	7 (OCT)	11 (OCT)	7 (SEP)	6 (OCT)	7
Kittiwake	0	12 (AUG)	6 (JUL)	3 (JUL)	5 (JUL)	5
Black-headed Gull	140 (SEP)	150 (JUL)	110 (JUL)	180 (SEP)	230 (JUL)	162
Little Gull	0	1 (JUL)	0	0	0	0
Common Gull	4 (SEP)	0	30 (OCT)	190 (SEP)	40 (SEP)	53





# Table4a: Five-year autumn peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and October for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2012	2012/2014	2014/2015	2015/2016	2016/2017	Mean of Baalys
species	2012/2013	2013/2014	2014/2013	2013/2010	2010/2017	геаку
Lesser Black-backed Gull	1 (AUG)	1 (JUL)	0	5 (SEP)	2 (AUG)	2
Herring Gull	35 (AUG)	30 (AUG)	280 (OCT)	740 (AUG)	190 (OCT)	255
Great Black-backed Gull	1 (JUL)	4 (JUL)	1 (OCT)	20 (OCT)	60 (SEP)	17
Sandwich Tern	0	4 (JUL)	0	4 (SEP)	0	2
Common Tern	22 (JUL)	8 (JUL)	6 (JUL)	30 (SEP)	4 (JUL)	14
Arctic Tern	0	0	1 (JUL)	0	0	0
Kingfisher	0	0	0	1 (OCT)	0	0





Table4b: Five-year winter peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between November and March for the winter in question and the species in

question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question. Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Mute Swan	0	0	(1) (NOV)	0	0	0
Shelduck	52 (JAN)	84 (MAR)	124 (FEB)	118 (MAR)	61 (NOV)	88
Gadwall	2 (DEC)	4 (MAR)	14 (JAN)	4 (JAN)	0	5
Teal	83 (JAN)	337 (NOV)	248 (JAN)	126 (DEC)	171 (DEC)	193
Mallard	22 (JAN)	22 (FEB)	10 (DEC)	4 (JAN)	12 (DEC)	14
Pochard	0	3 (NOV)	(0)	0	0	1
Tufted Duck	0	1 (NOV)	(0)	0	0	0
Scaup	0	0	(0)	0	1 (FEB)	0
Eider	3 (DEC)	0	1 (FEB)	2 (MAR)	0	1
Long-tailed Duck	1 (JAN)	2 (DEC)	(0)	0	1 (NOV)	1
Common Scoter	1 (MAR)	0	(0)	0	0	0
Goldeneye	24 (DEC)	34 (JAN)	26 (MAR)	33 (JAN)	29 (JAN)	29
<b>Red-breasted Merganser</b>	37 (NOV)	28 (NOV)	28 (MAR)	52 (FEB)	52 (NOV)	39
<b>Red-throated Diver</b>	2 (JAN)	1 (FEB)	2 (DEC)	0	0	1
Little Grebe	11 (JAN)	15 (DEC)	13 (FEB)	14 (JAN)	26 (NOV)	16
Great Crested Grebe	0	0	(0)	1 (MAR)	1 (NOV)	1
Cormorant	67 (JAN)	95 (FEB)	44 (MAR)	37 (JAN)	57 (FEB)	60
Shag	0	1 (MAR)	(0)	0	0	0
Little Egret	3 (NOV)	7 (NOV)	(1) (NOV)	19 (NOV)	6 (NOV)	9
Grey Heron	1 (NOV)	0	5 (JAN)	2 (NOV)	4 (NOV)	2
Moorhen	3 (NOV)	2 (DEC)	6 (JAN)	2 (FEB)	2 (FEB)	3
Oystercatcher	1 (NOV)	7 (FEB)	3 (JAN)	2 (MAR)	1 (JAN)	3
<b>Ringed Plover</b>	0	0	1 (JAN)	0	0	0
Lapwing	28 (MAR)	240 (FEB)	620 (FEB)	190 (DEC)	28 (DEC)	221
Knot	0	1 (NOV)	(0)	0	0	0
Dunlin	0	1 (MAR)	(0)	0	0	0
Snipe	0	0	1 (MAR)	0	0	0
Curlew	1 (NOV)	2 (MAR)	3 (FEB)	1 (NOV)	4 (DEC)	2
Greenshank	0	0	(0)	1 (NOV)	0	0
Redshank	110 (JAN)	190 (DEC)	180 (JAN)	190 (FEB)	180 (DEC)	170





### Table4b: Five-year winter peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between November and March for the winter in question and the species in guestion

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question. Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Turnstone	16 (NOV)	11 (FEB)	13 (JAN)	11 (DEC)	0	10
Black-headed Gull	260 (FEB)	230 (DEC)	360 (MAR)	120 (FEB)	270 (FEB)	248
Common Gull	110 (FEB)	780 (FEB)	440 (MAR)	440 (DEC)	470 (NOV)	448
Lesser Black-backed Gull	0	0	2 (MAR)	0	0	0
Herring Gull	620 (DEC)	160 (JAN)	780 (MAR)	270 (FEB)	80 (FEB)	382
Great Black-backed Gull	30 (DEC)	19 (NOV)	6 (DEC)	28 (DEC)	35 (DEC)	24
Kingfisher	1 (NOV)	0	(0)	0	0	0





Table4c: Five-year spring peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between April and June for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Mute Swan	0	1 (APR)	0	0	0	0
Canada Goose	6 (APR)	0	0	3 (JUN)	0	2
Shelduck	38 (MAY)	86 (APR)	34 (APR)	66 (APR)	37 (MAY)	52
Gadwall	0	0	4 (APR)	0	2 (APR)	1
Teal	8 (APR)	0	52 (APR)	12 (APR)	13 (APR)	17
Mallard	4 (APR)	4 (JUN)	1 (APR)	4 (JUN)	4 (APR)	3
Shoveler	2 (APR)	0	0	0	0	0
Pochard	0	1 (MAY)	0	0	0	0
Goldeneye	19 (APR)	6 (APR)	0	0	0	5
Red-breasted Merganser	16 (APR)	3 (APR)	7 (APR)	12 (APR)	7 (APR)	9
Little Grebe	2 (APR)	0	0	0	0	0
Great Crested Grebe	0	0	1 (JUN)	0	0	0
Cormorant	17 (APR)	6 (JUN)	21 (JUN)	5 (JUN)	19 (MAY)	14
Grey Heron	1 (APR)	0	0	1 (JUN)	1 (MAY)	1
Moorhen	1 (APR)	1 (MAY)	0	0	1 (APR)	1
Oystercatcher	1 (MAY)	3 (APR)	1 (APR)	2 (MAY)	2 (APR)	2
Grey Plover	0	0	0	1 (MAY)	0	0
Lapwing	30 (APR)	4 (JUN)	1 (APR)	2 (JUN)	3 (JUN)	8
Dunlin	0	0	0	0	2 (MAY)	0
Snipe	2 (APR)	0	0	0	0	0
Curlew	0	3 (MAY)	2 (APR)	1 (APR)	5 (APR)	2
Common Sandpiper	0	0	0	1 (JUN)	0	0
Redshank	44 (APR)	105 (APR)	0	35 (JUN)	18 (APR)	40
Turnstone	2 (APR)	11 (APR)	0	4 (MAY)	0	3
Kittiwake	7 (JUN)	27 (MAY)	9 (APR)	31 (MAY)	16 (APR)	18
Black-headed Gull	110 (APR)	130 (JUN)	80 (JUN)	90 (MAY)	70 (MAY)	96
Little Gull	0	0	0	1 (MAY)	0	0
Common Gull	20 (APR)	6 (APR)	3 (JUN)	20 (APR)	15 (APR)	13
Lesser Black-backed Gull	3 (APR)	1 (APR)	1 (MAY)	2 (JUN)	2 (JUN)	2
Herring Gull	80 (MAY)	90 (APR)	1450 (JUN)	190 (APR)	40 (MAY)	370
Great Black-backed Gull	2 (MAY)	0	4 (JUN)	0	6 (APR)	2





## Table4c: Five-year spring peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between April and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Sandwich Tern	0	17 (MAY)	0	0	12 (JUN)	6
Common Tern	17 (MAY)	3 (JUN)	14 (JUN)	3 (JUN)	3 (MAY)	8

### eBS The Wetland Bird Survey



Five year summary for Bran Sand South

#### Table4d: Five-year annual peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Mute Swan	3 (OCT)	1 (APR)	(1) (NOV)	0	0	1
Canada Goose	6 (APR)	0	0	3 (JUN)	5 (AUG)	3
Shelduck	52 (JAN)	86 (APR)	124 (FEB)	118 (MAR)	61 (NOV)	88
Wigeon	0	0	0	2 (OCT)	7 (SEP)	2
Gadwall	2 (DEC)	4 (MAR)	14 (JAN)	4 (JAN)	2 (APR)	5
Teal	83 (JAN)	337 (NOV)	248 (JAN)	126 (DEC)	171 (DEC)	193
Mallard	28 (AUG)	22 (FEB)	21 (SEP)	14 (SEP)	12 (DEC)	19
Shoveler	2 (APR)	0	0	0	0	0
Pochard	0	3 (NOV)	0	0	0	1
Tufted Duck	0	1 (NOV)	0	0	1 (OCT)	0
Scaup	1 (OCT)	1 (OCT)	0	0	1 (FEB)	1
Eider	3 (DEC)	0	1 (FEB)	2 (MAR)	0	1
Long-tailed Duck	1 (JAN)	2 (DEC)	0	0	1 (NOV)	1
Common Scoter	1 (MAR)	0	0	0	0	0
Goldeneye	24 (DEC)	34 (JAN)	26 (MAR)	33 (JAN)	29 (JAN)	29
<b>Red-breasted Merganser</b>	37 (NOV)	41 (OCT)	42 (OCT)	52 (FEB)	52 (NOV)	45
<b>Red-throated Diver</b>	2 (JAN)	1 (FEB)	2 (DEC)	0	0	1
Little Grebe	11 (JAN)	15 (DEC)	13 (FEB)	14 (JAN)	26 (NOV)	16
Great Crested Grebe	0	0	1 (JUL)	1 (MAR)	1 (AUG)	1
Cormorant	67 (JAN)	95 (FEB)	112 (AUG)	56 (SEP)	63 (AUG)	79
Shag	0	1 (MAR)	0	0	0	0
Little Egret	3 (OCT)	7 (NOV)	14 (OCT)	19 (NOV)	6 (NOV)	10
Grey Heron	1 (JUL)	2 (SEP)	10 (OCT)	9 (SEP)	9 (AUG)	6
Moorhen	3 (NOV)	2 (SEP)	6 (AUG)	2 (FEB)	2 (SEP)	3
Oystercatcher	1 (MAY)	7 (FEB)	3 (JAN)	18 (AUG)	2 (OCT)	6
<b>Ringed Plover</b>	0	0	1 (JAN)	0	0	0
Grey Plover	0	0	0	1 (MAY)	0	0
Lapwing	30 (APR)	240 (FEB)	620 (FEB)	190 (DEC)	32 (SEP)	222
Knot	0	1 (NOV)	0	0	0	0
Dunlin	1 (AUG)	1 (MAR)	0	47 (AUG)	2 (MAY)	10
Snipe	2 (APR)	0	1 (MAR)	0	1 (OCT)	1





# Table4d: Five-year annual peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Black-tailed Godwit	0	6 (AUG)	0	0	0	1
Curlew	1 (OCT)	3 (MAY)	3 (FEB)	1 (JUL)	5 (APR)	3
Common Sandpiper	4 (AUG)	1 (JUL)	3 (JUL)	1 (AUG)	2 (AUG)	2
Greenshank	0	0	0	1 (SEP)	3 (AUG)	1
Redshank	110 (JAN)	190 (DEC)	180 (JAN)	190 (FEB)	180 (DEC)	170
Turnstone	16 (NOV)	11 (APR)	13 (JAN)	11 (DEC)	6 (OCT)	11
Kittiwake	7 (JUN)	27 (MAY)	9 (APR)	31 (MAY)	16 (APR)	18
Black-headed Gull	260 (FEB)	230 (DEC)	360 (MAR)	180 (SEP)	270 (FEB)	260
Little Gull	0	1 (JUL)	0	1 (MAY)	0	0
Common Gull	110 (FEB)	780 (FEB)	440 (MAR)	440 (DEC)	470 (NOV)	448
Lesser Black-backed Gull	3 (APR)	1 (JUL)	2 (MAR)	5 (SEP)	2 (AUG)	3
Herring Gull	620 (DEC)	160 (JAN)	1450 (JUN)	740 (AUG)	190 (OCT)	632
Great Black-backed Gull	30 (DEC)	19 (NOV)	6 (DEC)	28 (DEC)	60 (SEP)	29
Sandwich Tern	0	17 (MAY)	0	4 (SEP)	12 (JUN)	7
Common Tern	22 (JUL)	8 (JUL)	14 (JUN)	30 (SEP)	4 (JUL)	16
Arctic Tern	0	0	1 (JUL)	0	0	0
Kingfisher	1 (NOV)	0	0	1 (OCT)	0	0





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values

of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site. Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Mute Swan	0%	0%	0%	0%	0%	0%	0%	0%
Canada Goose	*2%	N/A	*4%	*6%	N/A	N/A	N/A	N/A
Shelduck	3%	14%	9%	14%	1%	3%	2%	3%
Wigeon	0%	N/A	N/A	0%	0%	N/A	N/A	0%
Gadwall	N/A	2%	0%	2%	N/A	1%	0%	1%
Teal	5%	9%	1%	9%	2%	4%	0%	4%
Mallard	0%	0%	0%	0%	0%	0%	0%	0%
Pochard	N/A	0%	0%	0%	N/A	0%	0%	0%
Eider	N/A	0%	N/A	0%	N/A	0%	N/A	0%
Long-tailed Duck	N/A	1%	N/A	1%	N/A	0%	N/A	0%
Goldeneye	1%	15%	3%	15%	0%	0%	0%	0%
<b>Red-breasted Merganser</b>	36%	46%	11%	54%	2%	2%	1%	3%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Mute Swan	1	0	0	1
Canada Goose	1		2	3
Shelduck	20	88	52	88
Wigeon	2			2
Gadwall		5	1	5
Teal	102	193	17	193
Mallard	17	14	3	19
Pochard		1	0	1
Eider		1		1
Long-tailed Duck		1		1
Goldeneye	2	29	5	29
Red-breasted Merganser	30	39	9	45





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values

of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site. Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Red-throated Diver	N/A	1%	N/A	1%	N/A	0%	N/A	0%
Little Grebe	3%	10%	0%	10%	0%	0%	0%	0%
Great Crested Grebe	0%	1%	0%	1%	0%	0%	0%	0%
Cormorant	18%	17%	4%	23%	5%	5%	1%	7%
Little Egret	*16%	*18%	N/A	*20%	1%	1%	N/A	1%
Grey Heron	1%	0%	0%	1%	0%	0%	0%	0%
Moorhen	0%	0%	0%	0%	0%	0%	0%	0%
Oystercatcher	0%	0%	0%	0%	0%	0%	0%	0%
Lapwing	1%	4%	0%	4%	0%	1%	0%	1%
Dunlin	0%	0%	0%	0%	0%	0%	0%	0%
Black-tailed Godwit	0%	N/A	N/A	0%	0%	N/A	N/A	0%
Curlew	0%	0%	0%	0%	0%	0%	0%	0%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Red-throated Diver		1		1
Little Grebe	5	16	0	16
Great Crested Grebe	0	1	0	1
Cormorant	63	60	14	79
Little Egret	8	9		10
Grey Heron	6	2	1	6
Moorhen	2	3	1	3
Oystercatcher	4	3	2	6
Lapwing	44	221	8	222
Dunlin	10	0	0	10
Black-tailed Godwit	1			1
Curlew	1	2	2	3

Data provided by the British Trust for Ornithology on behalf of The Wetland Bird Survey.

These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment.

If some species (c), mixing geocol (unit on control and online and online and online and only only on any or more appropriate for the purpose of and second intermediate and association.
Missing or unexpectedly low counts for gulls and terms should be treated with caution - counting these groups is optional and determination of count effort not always possible.





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values

of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site. Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Common Sandpiper	*4%	N/A	*0%	*4%	0%	N/A	0%	0%
Greenshank	*2%	*0%	N/A	*2%	0%	0%	N/A	0%
Redshank	7%	14%	3%	14%	4%	7%	2%	7%
Turnstone	1%	2%	1%	2%	1%	1%	0%	1%
Kittiwake	*10%	N/A	*36%	*36%	0%	N/A	0%	0%
Black-headed Gull	1%	1%	0%	1%	1%	1%	0%	1%
Common Gull	1%	6%	0%	6%	0%	3%	0%	3%
Lesser Black-backed Gull	0%	0%	0%	0%	0%	0%	0%	0%
Herring Gull	3%	5%	5%	9%	3%	4%	4%	6%
Great Black-backed Gull	2%	3%	0%	4%	0%	1%	0%	1%
Sandwich Tern	*4%	N/A	*12%	*14%	0%	N/A	0%	0%
Common Tern	*28%	N/A	*16%	*32%	1%	N/A	0%	1%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Common Sandpiper	2		0	2
Greenshank	1	0		1
Redshank	84	170	40	170
Turnstone	7	10	3	11
Kittiwake	5		18	18
Black-headed Gull	162	248	96	260
Common Gull	53	448	13	448
Lesser Black-backed Gull	2	0	2	3
Herring Gull	255	382	370	632
Great Black-backed Gull	17	24	2	29
Sandwich Tern	2		6	7
Common Tern	14		8	16

Data provided by the British Trust for Ornithology on behalf of The Wetland Bird Survey.

These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment.

Missing or unexpectedly low counts for gulls and terns should be treated with caution - counting these groups is optional and determination of count effort not always possible.





#### Table1: Total Counts - All Species Combined.

Peak monthly total = maximum of the sum of the counts of all species within each month. Seasonal peaks = sum of the maximum counts of for each species within each Season.

Year	Peak M Total	Aonthly	Autumn Peak	Winter Peak	Spring Peak
12/13	198	(JAN)	174	258	209
13/14	196	(JAN)	151	309	84
14/15	257	(JAN)	245	305	80
15/16	85	(MAR)	124	116	69
16/17	128	(DEC)	104	225	128
MEAN		173	160	243	114



 
 Table2: Five-year average monthly counts of each species.

 Figure in parentheses give number of complete and incomplete counts upon which the average is based.
 Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mute Swan	4(5,.)	2(5,.)	5(5,.)	5(5,.)	5(4,1)	5(4,1)	5(5,.)	7(5,.)	3(4,1)	3(5,.)	4(4,1)	3(3,1)
Greylag Goose (British/Irish)	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	4(5,.)	0(5,.)	1(4,1)	2(5,.)	0(4,1)	0(3,1)
Canada Goose	0(5,.)	1(5,.)	5(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	1(5,.)	4(4,1)	1(5,.)	1(4,1)	0(3,1)
Shelduck	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	1(5,.)	1(5,.)	2(4,1)	2(5,.)	2(4,1)	0(3,1)
Muscovy Duck	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(3,1)
Wigeon	0(5,.)	0(5,.)	0(5,.)	8(5,.)	9(4,1)	8(4,1)	8(5,.)	6(5,.)	3(4,1)	0(5,.)	0(4,1)	0(3,1)
Gadwall	1(5,.)	2(5,.)	0(5,.)	7(5,.)	5(4,1)	5(4,1)	13(5,.)	5(5,.)	8(4,1)	3(5,.)	2(4,1)	3(3,1)
Teal	0(5,.)	8(5,.)	7(5,.)	13(5,.)	11(4,1)	6(4,1)	14(5,.)	8(5,.)	10(4,1)	12(5,.)	1(4,1)	0(3,1)
Mallard	10(5,.)	12(5,.)	5(5,.)	6(5,.)	11(4,1)	2(4,1)	4(5,.)	2(5,.)	8(4,1)	7(5,.)	4(4,1)	7(3,1)
Shoveler	0(5,.)	0(5,.)	0(5,.)	1(5,.)	3(4,1)	1(4,1)	1(5,.)	0(5,.)	2(4,1)	0(5,.)	0(4,1)	0(3,1)
Red-crested Pochard	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(3,1)
Pochard	0(5,.)	1(5,.)	0(5,.)	0(5,.)	1(4,1)	0(4,1)	0(5,.)	2(5,.)	4(4,1)	2(5,.)	1(4,1)	0(3,1)
Tufted Duck	5(5,.)	8(5,.)	6(5,.)	5(5,.)	8(4,1)	13(4,1)	12(5,.)	12(5,.)	17(4,1)	9(5,.)	0(4,1)	1(3,1)
Long-tailed Duck	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(3,1)
Goldeneye	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	1(4,1)	2(5,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(3,1)
Little Grebe	3(5,.)	5(5,.)	3(5,.)	1(5,.)	1(4,1)	0(4,1)	1(5,.)	1(5,.)	2(4,1)	1(5,.)	0(4,1)	2(3,1)
Great Crested Grebe	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(3,1)
Cormorant	0(5,.)	0(5,.)	0(5,.)	2(5,.)	1(4,1)	3(4,1)	2(5,.)	3(5,.)	2(4,1)	1(5,.)	0(4,1)	0(3,1)
Bittern	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(3,1)
Little Egret	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(3,1)
Grey Heron	3(5,.)	1(5,.)	1(5,.)	1(5,.)	1(4,1)	1(4,1)	2(5,.)	1(5,.)	1(4,1)	2(5,.)	1(4,1)	2(3,1)
Water Rail	1(5,.)	0(5,.)	0(5,.)	1(5,.)	1(4,1)	2(4,1)	0(5,.)	0(5,.)	1(4,1)	1(5,.)	0(4,1)	0(3,1)
Moorhen	3(5,.)	6(5,.)	3(5,.)	3(5,.)	2(4,1)	2(4,1)	1(5,.)	2(5,.)	2(4,1)	2(5,.)	2(4,1)	3(3,1)
Coot	7(5,.)	9(5,.)	7(5,.)	9(5,.)	7(4,1)	15(4,1)	13(5,.)	15(5,.)	15(4,1)	6(5,.)	7(4,1)	8(3,1)
Oystercatcher	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	6(5,.)	0(4,1)	0(3,1)
Grey Plover	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(3,1)
Ruff	0(5,.)	1(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(3,1)
Jack Snipe	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	1(5,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(3,1)
Snipe	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	1(4,1)	0(5,.)	0(4,1)	0(3,1)
Curlew	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(3,1)
Common Sandpiper	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	1(4,1)	0(3,1)
Black-headed Gull	10(5,.)	6(5,.)	11(5,.)	24(5,.)	21(4,1)	30(4,1)	59(5,.)	25(5,.)	4(4,1)	4(5,.)	6(4,1)	5(3,1)
Common Gull	0(5,.)	0(5,.)	1(5,.)	0(5,.)	1(4,1)	4(4,1)	7(5,.)	2(5,.)	2(4,1)	0(5,.)	0(4,1)	0(3,1)
Lesser Black-backed Gull	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	1(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(3,1)
Herring Gull	8(5,.)	3(5,.)	5(5,.)	11(5,.)	11(4,1)	14(4,1)	22(5,.)	4(5,.)	10(4,1)	32(5,.)	7(4,1)	1(3,1)

Data provided by the British Trust for Omithology on behalf of The Wetland Bird Survey. These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment. Missing or unexpectedly low counts for gulls and terms should be treated with caution - counting these groups is optional and determination of count effort not always possible.

The Wetland Bird Survey is a partnership jointly funded by the British Trust for Ornithology, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee, in association with the Wildfowl and Wetlands Trust, with fieldwork conducted by volunteers.



#### Table2: Five-year average monthly counts of each species.

Figure in parentheses give number of complete and incomplete counts upon which the average is based. Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Great Black-backed Gull	0(5,.)	0(5,.)	0(5,.)	0(5,.)	1(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(3,1)
Common Tern	1(3,.)	0(5,.)	0(5,.)	0(1,.)	0(1,.)	N/C	N/C	0(1,.)	N/C	0(2,.)	0(1,1)	0(2,.)
Kingfisher	0(5,.)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(4,1)	0(3,1)





Table3: Five-year peak monthly counts of each species. The value reported represents the highest count obtained over the five-year period during the month in question and the species in

question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mute Swan	9	6	8	10	9	10	8	9	4	4	7	4
Greylag Goose (British/Irish)	0	0	0	0	0	0	18	0	2	9	0	0
Canada Goose	0	7	23	0	0	0	0	4	10	2	3	1
Shelduck	0	0	0	0	0	0	3	2	6	4	4	0
Muscovy Duck	0	0	0	0	0	0	1	0	0	0	0	0
Wigeon	0	0	0	29	21	15	23	20	10	0	0	0
Gadwall	5	6	1	23	10	16	37	19	21	7	5	8
Teal	1	17	25	25	25	13	20	12	17	15	3	0
Mallard	19	32	8	14	35	4	8	4	13	14	6	15
Shoveler	0	1	1	6	13	2	2	2	9	0	0	0
<b>Red-crested Pochard</b>	0	0	0	0	0	1	0	0	0	0	0	0
Pochard	0	3	1	2	2	1	0	8	7	4	2	0
Tufted Duck	9	14	15	14	14	24	18	17	38	17	1	3
Long-tailed Duck	0	0	0	0	1	0	0	0	0	0	0	0
Goldeneye	0	0	0	0	1	3	6	1	0	2	0	0
Little Grebe	6	9	6	3	2	1	4	2	2	2	2	5
Great Crested Grebe	1	0	0	0	0	0	0	0	0	0	0	0
Cormorant	1	2	1	4	4	8	4	5	7	3	0	0
Bittern	0	0	0	0	0	0	0	1	0	0	0	0
Little Egret	2	2	0	0	0	0	0	0	0	0	0	0
Grey Heron	6	2	1	1	2	5	4	4	2	4	4	3
Water Rail	3	0	2	2	1	6	2	1	2	3	0	0
Moorhen	7	10	7	4	4	4	1	3	4	4	2	4
Coot	29	22	22	29	13	34	23	29	29	16	8	11
Oystercatcher	0	0	0	0	0	0	0	0	1	28	0	0
Grey Plover	0	0	0	0	0	0	0	1	0	0	0	0
Ruff	0	3	0	0	0	0	0	0	0	0	0	0
Jack Snipe	0	0	0	0	0	0	3	0	0	0	0	0
Snipe	0	0	0	1	1	0	0	0	1	1	0	0
Curlew	0	0	0	0	0	0	1	1	0	0	0	0
Common Sandpiper	0	0	0	0	0	0	0	0	0	0	2	0
Black-headed Gull	15	16	29	55	45	51	105	60	9	12	20	6
Common Gull	2	0	1	0	3	10	20	5	3	1	0	0
Lesser Black-backed Gull	2	0	0	0	0	3	0	0	0	1	1	0
Herring Gull	33	10	9	45	35	26	40	12	23	87	14	3





#### Table3: Five-year peak monthly counts of each species.

The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Great Black-backed Gull	0	0	0	0	2	1	0	0	0	1	1	0
Common Tern	2	0	0	0	0	N/C	N/C	0	N/C	0	0	0
Kingfisher	0	1	0	0	0	0	0	0	0	0	0	0





### Table4a: Five-year autumn peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between July and October for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

						Mean
Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	or Peaks
Mute Swan	6 (AUG)	4 (SEP)	4 (SEP)	9 (JUL)	10 (OCT)	7
Canada Goose	23 (SEP)	0	0	0	7 (AUG)	6
Wigeon	5 (OCT)	2 (OCT)	29 (OCT)	3 (OCT)	0	8
Gadwall	0	3 (AUG)	12 (OCT)	23 (OCT)	6 (AUG)	9
Teal	25 (OCT)	25 (SEP)	20 (OCT)	9 (AUG)	17 (AUG)	19
Mallard	19 (JUL)	12 (OCT)	32 (AUG)	15 (JUL)	10 (JUL)	18
Shoveler	0	1 (AUG)	6 (OCT)	1 (SEP)	0	2
Pochard	3 (AUG)	0	1 (SEP)	0	0	1
Tufted Duck	14 (AUG)	15 (SEP)	13 (AUG)	11 (AUG)	6 (JUL)	12
Little Grebe	3 (JUL)	0	4 (AUG)	9 (AUG)	7 (AUG)	5
Great Crested Grebe	1 (JUL)	0	0	0	0	0
Cormorant	4 (OCT)	3 (OCT)	2 (AUG)	0	4 (OCT)	3
Little Egret	0	0	0	2 (JUL)	2 (AUG)	1
Grey Heron	4 (JUL)	2 (AUG)	1 (JUL)	2 (JUL)	6 (JUL)	3
Water Rail	0	3 (JUL)	2 (SEP)	0	1 (JUL)	1
Moorhen	6 (AUG)	3 (AUG)	4 (AUG)	10 (AUG)	7 (JUL)	6
Coot	29 (JUL)	12 (OCT)	12 (AUG)	2 (JUL)	1 (JUL)	11
Ruff	0	0	0	0	3 (AUG)	1
Snipe	0	1 (OCT)	0	0	0	0
Black-headed Gull	24 (OCT)	29 (SEP)	55 (OCT)	23 (OCT)	12 (AUG)	29
Common Gull	1 (SEP)	1 (SEP)	0	1 (SEP)	2 (JUL)	1
Lesser Black-backed Gull	0	2 (JUL)	0	0	0	0
Herring Gull	7 (OCT)	33 (JUL)	45 (OCT)	4 (AUG)	3 (SEP)	18
Common Tern	0	0	2 (JUL)	0	0	0
Kingfisher	0	0	1 (AUG)	0	0	0





Table4b: Five-year winter peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between November and March for the winter in question and the species in

question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question. Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Mute Swan	6 (JAN)	9 (FEB)	7 (FEB)	7 (DEC)	10 (DEC)	8
Greylag Goose (British/Irish)	18 (JAN)	2 (MAR)	(0)	2 (MAR)	1 (MAR)	6
Canada Goose	0	4 (FEB)	(0)	4 (MAR)	10 (MAR)	5
Shelduck	6 (MAR)	2 (FEB)	3 (JAN)	2 (FEB)	1 (MAR)	3
Muscovy Duck	1 (JAN)	0	(0)	0	0	0
Wigeon	23 (JAN)	11 (FEB)	(20) (NOV)	5 (DEC)	1 (NOV)	12
Gadwall	10 (NOV)	3 (MAR)	37 (JAN)	14 (MAR)	20 (JAN)	17
Teal	18 (JAN)	20 (JAN)	(25) (NOV)	8 (NOV)	17 (MAR)	18
Mallard	4 (NOV)	35 (NOV)	(6) (NOV)	13 (MAR)	9 (MAR)	15
Shoveler	1 (DEC)	13 (NOV)	(0)	1 (JAN)	9 (MAR)	6
Red-crested Pochard	0	(1) (DEC)	(0)	0	0	0
Pochard	3 (FEB)	8 (FEB)	(3) (MAR)	2 (MAR)	3 (MAR)	4
Tufted Duck	17 (FEB)	17 (FEB)	16 (JAN)	12 (MAR)	38 (MAR)	20
Long-tailed Duck	0	0	(0)	0	1 (NOV)	0
Goldeneye	2 (DEC)	(3) (DEC)	6 (JAN)	1 (JAN)	1 (JAN)	3
Little Grebe	1 (MAR)	2 (NOV)	4 (JAN)	2 (MAR)	2 (JAN)	2
Cormorant	7 (MAR)	(3) (DEC)	8 (DEC)	5 (FEB)	3 (DEC)	6
Bittern	0	1 (FEB)	(0)	0	0	0
Grey Heron	4 (FEB)	2 (MAR)	(0)	5 (DEC)	4 (JAN)	4
Water Rail	1 (NOV)	1 (NOV)	(0)	2 (MAR)	6 (DEC)	3
Moorhen	4 (DEC)	4 (NOV)	(2) (NOV)	2 (NOV)	4 (MAR)	4
Coot	34 (DEC)	14 (JAN)	(29) (MAR)	9 (MAR)	7 (NOV)	19
Oystercatcher	0	0	(0)	1 (MAR)	0	0
Grey Plover	0	1 (FEB)	(0)	0	0	0
Jack Snipe	0	0	3 (JAN)	0	0	1
Snipe	0	1 (NOV)	(0)	1 (MAR)	0	1
Curlew	1 (JAN)	1 (FEB)	(0)	0	0	1
Black-headed Gull	75 (JAN)	105 (JAN)	75 (JAN)	12 (JAN)	51 (DEC)	64
Common Gull	8 (JAN)	(10) (DEC)	20 (JAN)	3 (JAN)	0	8
Lesser Black-backed Gull	0	0	(0)	0	3 (DEC)	1





### Table4b: Five-year winter peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between November and March for the winter in question and the species in

question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question. Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Herring Gull	12 (FEB)	36 (JAN)	40 (JAN)	3 (FEB)	24 (JAN)	23
Great Black-backed Gull	2 (NOV)	0	1 (DEC)	0	0	1

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### Five year summary for Coatham Marsh Table4c: Five-year spring peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between April and June for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Mute Swan	4 (APR)	3 (APR)	4 (JUN)	3 (APR)	7 (MAY)	4
Greylag Goose (British/Irish)	0	0	0	1 (APR)	9 (APR)	2
Canada Goose	3 (MAY)	1 (APR)	2 (APR)	(1) (JUN)	2 (APR)	2
Shelduck	4 (APR)	2 (APR)	2 (APR)	2 (APR)	0	2
Gadwall	0	4 (APR)	5 (MAY)	7 (APR)	8 (JUN)	5
Teal	14 (APR)	15 (APR)	11 (APR)	7 (APR)	12 (APR)	12
Mallard	9 (APR)	14 (APR)	4 (JUN)	9 (APR)	15 (JUN)	10
Pochard	2 (MAY)	4 (APR)	0	2 (APR)	2 (APR)	2
Tufted Duck	4 (APR)	4 (APR)	17 (APR)	11 (APR)	9 (APR)	9
Goldeneye	2 (APR)	0	0	0	0	0
Little Grebe	2 (APR)	1 (APR)	5 (JUN)	2 (APR)	2 (APR)	2
Cormorant	3 (APR)	0	0	2 (APR)	0	1
Grey Heron	2 (JUN)	1 (MAY)	3 (JUN)	4 (APR)	4 (MAY)	3
Water Rail	3 (APR)	0	2 (APR)	0	0	1
Moorhen	4 (APR)	1 (APR)	4 (JUN)	2 (APR)	3 (APR)	3
Coot	16 (APR)	6 (MAY)	6 (MAY)	(4) (MAY)	8 (MAY)	9
Oystercatcher	28 (APR)	0	0	0	0	6
Snipe	0	0	0	0	1 (APR)	0
Common Sandpiper	0	0	0	0	2 (MAY)	0
Black-headed Gull	20 (MAY)	0	6 (JUN)	3 (APR)	6 (APR)	7
Common Gull	1 (APR)	0	0	0	0	0
Lesser Black-backed Gull	1 (APR)	1 (MAY)	0	0	1 (APR)	1
Herring Gull	87 (APR)	27 (APR)	8 (MAY)	9 (APR)	36 (APR)	33
Great Black-backed Gull	0	0	1 (MAY)	0	1 (APR)	0

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### Five year summary for Coatham Marsh Table4d: Five-year annual peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013 2013/2014 2014/2015 2015/2016 20		2016/2017	Mean Peak		
Mute Swan	6 (AUG)	9 (FEB)	7 (FEB)	9 (JUL)	10 (OCT)	8
Greylag Goose (British/Irish)	18 (JAN)	2 (MAR)	0	2 (MAR)	9 (APR)	6
Canada Goose	23 (SEP)	4 (FEB)	2 (APR)	4 (MAR)	10 (MAR)	9
Shelduck	6 (MAR)	2 (APR)	3 (JAN)	2 (APR)	1 (MAR)	3
Muscovy Duck	1 (JAN)	0	0	0	0	0
Wigeon	23 (JAN)	11 (FEB)	29 (OCT)	5 (DEC)	1 (NOV)	14
Gadwall	10 (NOV)	4 (APR)	37 (JAN)	23 (OCT)	20 (JAN)	19
Teal	25 (OCT)	25 (SEP)	(25) (NOV)	9 (AUG)	17 (AUG)	20
Mallard	19 (JUL)	35 (NOV)	32 (AUG)	15 (JUL)	15 (JUN)	23
Shoveler	1 (DEC)	13 (NOV)	6 (OCT)	1 (SEP)	9 (MAR)	6
<b>Red-crested Pochard</b>	0	(1) (DEC)	0	0	0	0
Pochard	3 (AUG)	8 (FEB)	(3) (MAR)	2 (APR)	3 (MAR)	4
Tufted Duck	17 (FEB)	17 (FEB)	17 (APR)	12 (MAR)	38 (MAR)	20
Long-tailed Duck	0	0	0	0	1 (NOV)	0
Goldeneye	2 (APR)	(3) (DEC)	6 (JAN)	1 (JAN)	1 (JAN)	3
Little Grebe	3 (JUL)	2 (NOV)	5 (JUN)	9 (AUG)	7 (AUG)	5
Great Crested Grebe	1 (JUL)	0	0	0	0	0
Cormorant	7 (MAR)	3 (OCT)	8 (DEC)	5 (FEB)	4 (OCT)	5
Bittern	0	1 (FEB)	0	0	0	0
Little Egret	0	0	0	2 (JUL)	2 (AUG)	1
Grey Heron	4 (JUL)	2 (AUG)	3 (JUN)	5 (DEC)	6 (JUL)	4
Water Rail	3 (APR)	3 (JUL)	2 (SEP)	2 (MAR)	6 (DEC)	3
Moorhen	6 (AUG)	4 (NOV)	4 (AUG)	10 (AUG)	7 (JUL)	6
Coot	34 (DEC)	14 (JAN)	(29) (MAR)	9 (MAR)	8 (MAY)	19
Oystercatcher	28 (APR)	0	0	1 (MAR)	0	6
Grey Plover	0	1 (FEB)	0	0	0	0
Ruff	0	0	0	0	3 (AUG)	1
Jack Snipe	0	0	3 (JAN)	0	0	1
Snipe	0	1 (OCT)	0	1 (MAR)	1 (APR)	1
Curlew	1 (JAN)	1 (FEB)	0	0	0	0
Common Sandpiper	0	0	0	0	2 (MAY)	0




# Table4d: Five-year annual peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Black-headed Gull	75 (JAN)	105 (JAN)	75 (JAN)	23 (OCT)	51 (DEC)	66
Common Gull	8 (JAN)	(10) (DEC)	20 (JAN)	3 (JAN)	2 (JUL)	9
Lesser Black-backed Gull	1 (APR)	2 (JUL)	0	0	3 (DEC)	1
Herring Gull	87 (APR)	36 (JAN)	45 (OCT)	9 (APR)	36 (APR)	43
Great Black-backed Gull	2 (NOV)	0	1 (MAY)	0	1 (APR)	1
Common Tern	0	0	2 (JUL)	0	0	0
Kingfisher	0	0	1 (AUG)	0	0	0





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site. Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold
Mute Swan	1%	1%	1%	1%	2%	3%
Greylag Goose (British/Irish)	N/A	0%	0%	0%	N/A	N/A
Canada Goose	*12%	*10%	*4%	*18%	N/A	N/A
Shelduck	N/A	0%	0%	0%	N/A	0%
Wigeon	0%	0%	N/A	0%	0%	0%
Gadwall	4%	7%	2%	8%	2%	3%
Teal	1%	1%	1%	1%	0%	0%
Mallard	0%	0%	0%	0%	0%	0%
Shoveler	1%	3%	N/A	3%	1%	2%
Pochard	0%	1%	1%	1%	0%	0%
Tufted Duck	1%	2%	1%	2%	0%	0%
Goldeneye	N/A	2%	0%	2%	N/A	0%

Species	Spring peak cf International Threshold	Annual peak cf International Threshold	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Mute Swan	1%	3%	7	8	4	8
Greylag Goose (British/Irish)	N/A	N/A		6	2	6
Canada Goose	N/A	N/A	6	5	2	9
Shelduck	0%	0%		3	2	3
Wigeon	N/A	0%	8	12		14
Gadwall	1%	3%	9	17	5	19
Teal	0%	0%	19	18	12	20
Mallard	0%	0%	18	15	10	23
Shoveler	N/A	2%	2	6		6
Pochard	0%	0%	1	4	2	4
Tufted Duck	0%	0%	12	20	9	20
Goldeneye	0%	0%		3	0	3

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Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

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(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold
Little Grebe	3%	1%	1%	3%	0%	0%
Cormorant	1%	2%	0%	1%	0%	1%
Little Egret	*2%	N/A	N/A	*2%	0%	N/A
Grey Heron	0%	1%	0%	1%	0%	0%
Water Rail	*2%	*6%	*2%	*6%	0%	0%
Moorhen	0%	0%	0%	0%	0%	0%
Coot	1%	1%	1%	1%	0%	0%
Oystercatcher	N/A	0%	0%	0%	N/A	0%
Ruff	*2%	N/A	N/A	*2%	0%	N/A
Jack Snipe	N/A	0%	N/A	0%	N/A	0%
Snipe	0%	0%	0%	0%	0%	0%
Curlew	N/A	0%	N/A	0%	N/A	0%

Species	Spring peak cf International Threshold	Annual peak cf International Threshold	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Little Grebe	0%	0%	5	2	2	5
Cormorant	0%	0%	3	6	1	5
Little Egret	N/A	0%	1			1
Grey Heron	0%	0%	3	4	3	4
Water Rail	0%	0%	1	3	1	3
Moorhen	0%	0%	6	4	3	6
Coot	0%	0%	11	19	9	19
Oystercatcher	0%	0%		0	6	6
Ruff	N/A	0%	1			1
Jack Snipe	N/A	0%		1		1
Snipe	0%	0%	0	1	0	1
Curlew	N/A	0%		1		0

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These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment.

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Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site. Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold
Black-headed Gull	0%	0%	0%	0%	0%	0%
Common Gull	0%	0%	0%	0%	0%	0%
Lesser Black-backed Gull	0%	0%	0%	0%	0%	0%
Herring Gull	0%	0%	0%	1%	0%	0%
Great Black-backed Gull	N/A	0%	0%	0%	N/A	0%

Species	Spring peak cf International Threshold	Annual peak cf International Threshold	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Black-headed Gull	0%	0%	29	64	7	66
Common Gull	0%	0%	1	8	0	9
Lesser Black-backed Gull	0%	0%	0	1	1	1
Herring Gull	0%	0%	18	23	33	43
Great Black-backed Gull	0%	0%		1	0	1





Table1: Total Counts - All Species Combined.

Peak monthly total = maximum of the sum of the counts of all species within each month. Seasonal peaks = sum of the maximum counts of for each species within each Season.

Year	Peak M Total	Ionthly	Autumn Peak	Winter Peak	Spring Peak
12/13	1052	(DEC)	537	1377	476
13/14	956	(JAN)	557	1370	249
14/15	752	(JAN)	705	1102	362
15/16	715	(DEC)	535	1021	255
16/17	825	(JAN)	652	1253	391
MEAN		860	597	1225	347



Table2: Five-year average monthly counts of each species.

Figure in parentheses give number of complete and incomplete counts upon which the average is based. Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mute Swan	4(5,.)	5(5,.)	6(5,.)	6(4,1)	2(4,1)	4(5,.)	5(5,.)	5(4,1)	2(5,.)	4(5,.)	3(5,.)	6(5,.)
Bean Goose (Taiga)	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Pink-footed Goose	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	2(5,.)	2(5,.)	0(5,.)	0(5,.)
Greylag Goose (British/Irish)	1(5,.)	1(5,.)	1(5,.)	5(4,1)	1(4,1)	5(5,.)	47(5,.)	7(4,1)	30(5,.)	25(5,.)	16(5,.)	4(5,.)
Canada Goose	56(5,.)	3(5,.)	0(5,.)	6(4,1)	76(4,1)	174(5,.)	86(5,.)	203(4,1)	127(5,.)	75(5,.)	62(5,.)	34(5,.)
Barnacle Goose	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	1(5,.)	0(5,.)
hybrid goose	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	1(5,.)	0(5,.)	1(4,1)	0(5,.)	0(5,.)	1(5,.)	0(5,.)
Shelduck	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	1(5,.)	2(5,.)	1(4,1)	0(5,.)	1(5,.)	2(5,.)	0(5,.)
Wigeon	0(5,.)	7(5,.)	9(5,.)	81(4,1)	149(4,1)	248(5,.)	229(5,.)	163(4,1)	149(5,.)	9(5,.)	0(5,.)	0(5,.)
Gadwall	27(5,.)	56(5,.)	52(5,.)	24(4,1)	19(4,1)	10(5,.)	12(5,.)	9(4,1)	4(5,.)	7(5,.)	11(5,.)	14(5,.)
Teal	0(5,.)	10(5,.)	5(5,.)	21(4,1)	34(4,1)	57(5,.)	87(5,.)	37(4,1)	32(5,.)	19(5,.)	0(5,.)	0(5,.)
Mallard	21(5,.)	12(5,.)	5(5,.)	10(4,1)	12(4,1)	6(5,.)	6(5,.)	7(4,1)	7(5,.)	13(5,.)	12(5,.)	8(5,.)
Pintail	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Garganey	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Shoveler	1(5,.)	2(5,.)	2(5,.)	11(4,1)	8(4,1)	5(5,.)	7(5,.)	9(4,1)	5(5,.)	4(5,.)	0(5,.)	1(5,.)
Pochard	3(5,.)	6(5,.)	1(5,.)	1(4,1)	1(4,1)	3(5,.)	1(5,.)	4(4,1)	7(5,.)	11(5,.)	6(5,.)	1(5,.)
Tufted Duck	8(5,.)	12(5,.)	5(5,.)	8(4,1)	14(4,1)	10(5,.)	15(5,.)	10(4,1)	18(5,.)	20(5,.)	9(5,.)	10(5,.)
Goldeneye	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	1(5,.)	1(4,1)	1(5,.)	0(5,.)	0(5,.)	0(5,.)
Little Grebe	4(5,.)	7(5,.)	3(5,.)	2(4,1)	2(4,1)	1(5,.)	0(5,.)	0(4,1)	1(5,.)	3(5,.)	2(5,.)	3(5,.)
Great Crested Grebe	2(5,.)	1(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	4(5,.)	3(5,.)	2(5,.)	2(5,.)
Cormorant	0(5,.)	1(5,.)	0(5,.)	2(4,1)	2(4,1)	2(5,.)	1(5,.)	3(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Bittern	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Little Egret	0(5,.)	2(5,.)	1(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	1(5,.)	0(5,.)	1(5,.)
Great White Egret	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Grey Heron	2(5,.)	2(5,.)	1(5,.)	1(4,1)	2(4,1)	1(5,.)	0(5,.)	2(4,1)	0(5,.)	1(5,.)	2(5,.)	1(5,.)
Water Rail	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Moorhen	3(5,.)	5(5,.)	7(5,.)	2(4,1)	1(4,1)	1(5,.)	7(5,.)	6(4,1)	2(5,.)	4(5,.)	2(5,.)	2(5,.)
Coot	66(5,.)	114(5,.)	134(5,.)	160(4,1)	176(4,1)	181(5,.)	204(5,.)	105(4,1)	62(5,.)	43(5,.)	26(5,.)	45(5,.)
Oystercatcher	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	2(5,.)	1(5,.)	1(5,.)	0(5,.)
Lapwing	13(5,.)	6(5,.)	1(5,.)	49(4,1)	0(4,1)	0(5,.)	0(5,.)	1(4,1)	19(5,.)	4(5,.)	4(5,.)	2(5,.)
Dunlin	0(5,.)	1(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Ruff	0(5,.)	1(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Jack Snipe	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Snipe	0(5,.)	0(5,.)	1(5,.)	1(4,1)	1(4,1)	1(5,.)	0(5,.)	0(4,1)	1(5,.)	0(5,.)	0(5,.)	0(5,.)
Black-tailed Godwit	0(5,.)	0(5,.)	1(5,.)	1(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	4(5,.)	1(5,.)

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#### Table2: Five-year average monthly counts of each species.

Figure in parentheses give number of complete and incomplete counts upon which the average is based. Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Curlew	0(5,.)	4(5,.)	13(5,.)	13(4,1)	1(4,1)	1(5,.)	7(5,.)	12(4,1)	29(5,.)	7(5,.)	0(5,.)	0(5,.)
Greenshank	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	0(4,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Redshank	0(5,.)	0(5,.)	0(5,.)	0(4,1)	0(4,1)	0(5,.)	0(5,.)	1(4,1)	1(5,.)	0(5,.)	0(5,.)	0(5,.)
Black-headed Gull	8(4,.)	2(4,.)	0(2,.)	10(3,1)	13(3,1)	41(5,.)	8(5,.)	117(1,1)	11(5,.)	7(5,.)	16(5,.)	2(5,.)
Common Gull	0(4,.)	0(4,.)	0(2,.)	1(3,1)	0(3,1)	0(5,.)	0(5,.)	0(1,1)	0(5,.)	0(5,.)	0(5,.)	0(5,.)
Lesser Black-backed Gull	1(4,.)	1(4,.)	0(2,.)	0(3,1)	0(3,1)	0(5,.)	0(5,.)	0(1,1)	0(5,.)	1(5,.)	2(5,.)	1(5,.)
Herring Gull	0(4,.)	0(4,.)	2(2,.)	5(3,1)	5(3,1)	1(5,.)	1(5,.)	6(1,1)	1(5,.)	1(5,.)	3(5,.)	0(5,.)
Great Black-backed Gull	0(4,.)	0(4,.)	0(2,.)	1(3,1)	0(3,1)	0(5,.)	0(5,.)	0(1,1)	0(5,.)	0(5,.)	1(5,.)	0(5,.)
Common Tern	2(4,.)	0(1,.)	0(1,.)	N/C	0(1,.)	N/C	0(1,.)	0(1,.)	0(1,.)	0(1,.)	1(2,.)	1(4,.)





Table3: Five-year peak monthly counts of each species. The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mute Swan	7	6	7	7	5	6	10	9	4	6	5	7
Bean Goose (Taiga)	0	0	0	0	0	0	0	0	1	1	0	0
Pink-footed Goose	0	0	0	0	0	0	0	0	9	7	0	0
Greylag Goose (British/Irish)	2	5	3	21	3	22	200	13	69	47	32	13
Canada Goose	112	5	2	23	217	304	188	254	232	156	68	77
Barnacle Goose	0	0	0	0	0	0	0	0	0	2	2	0
hybrid goose	1	0	0	0	0	2	1	2	2	1	2	0
Shelduck	0	0	0	0	0	2	3	2	2	2	4	1
Wigeon	2	23	39	161	254	637	387	243	268	40	0	0
Gadwall	42	110	142	56	28	28	30	27	8	13	19	39
Teal	0	37	17	38	68	160	183	68	68	40	0	0
Mallard	62	18	10	21	20	13	13	16	15	21	19	23
Pintail	0	1	0	0	1	1	0	0	0	0	0	0
Garganey	0	2	0	0	0	0	0	0	0	0	1	1
Shoveler	2	5	8	16	14	8	20	25	8	17	1	2
Pochard	5	12	2	2	5	11	2	12	10	21	9	3
Tufted Duck	27	33	8	11	17	13	22	15	30	31	14	21
Goldeneye	0	0	0	1	1	1	2	2	2	0	0	0
Little Grebe	7	13	7	3	5	2	1	0	3	8	7	7
Great Crested Grebe	3	2	1	0	0	0	0	0	6	4	5	4
Cormorant	0	1	1	4	9	4	2	4	2	1	1	0
Bittern	0	0	0	1	1	1	0	0	0	0	0	0
Little Egret	2	7	3	1	1	1	2	0	1	2	1	3
Great White Egret	0	0	0	0	0	0	0	0	0	1	0	0
Grey Heron	4	3	2	1	5	2	1	3	1	2	4	3
Water Rail	0	0	0	0	1	1	1	0	1	0	1	0
Moorhen	5	10	16	2	2	4	28	10	5	17	6	5
Coot	114	176	171	211	230	248	292	180	97	73	39	70
Oystercatcher	0	0	0	1	0	0	0	0	3	2	3	1
Lapwing	34	21	4	110	0	1	1	3	52	13	16	4
Dunlin	0	2	0	0	0	0	0	0	0	0	0	0
Ruff	0	5	1	0	0	0	0	0	0	0	0	0
Jack Snipe	0	0	0	0	0	0	0	0	1	0	0	0
Snipe	1	0	4	1	3	4	0	0	2	1	0	0
Black-tailed Godwit	0	1	3	2	1	0	0	0	0	0	18	4





#### Five year summary for Haverton Hole North Table3: Five-year peak monthly counts of each species.

The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Curlew	0	13	39	46	2	3	18	50	99	31	0	0
Greenshank	0	1	0	0	0	0	0	0	0	0	0	0
Redshank	0	0	0	0	1	1	0	2	3	0	0	1
Black-headed Gull	14	3	0	33	30	199	23	117	54	14	49	5
Common Gull	0	0	0	2	0	0	0	0	0	0	0	0
Lesser Black-backed Gull	1	1	0	0	1	1	0	0	1	2	5	1
Herring Gull	0	1	3	18	19	2	2	6	3	5	15	2
Great Black-backed Gull	0	0	0	3	1	1	1	0	0	1	3	0
Common Tern	3	0	0	N/C	0	N/C	0	0	0	0	1	1



Five year summary for Haverton Hole North

Table4a: Five-year autumn peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between July and October for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

						Mean of
Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Peaks
Mute Swan	7 (JUL)	7 (SEP)	4 (JUL)	7 (OCT)	6 (SEP)	6
Greylag Goose (British/Irish)	21 (OCT)	0	5 (AUG)	1 (JUL)	0	5
Canada Goose	57 (JUL)	46 (JUL)	65 (JUL)	112 (JUL)	23 (OCT)	61
hybrid goose	1 (JUL)	0	0	0	0	0
Wigeon	29 (OCT)	114 (OCT)	(161) (OCT)	12 (OCT)	90 (OCT)	81
Gadwall	43 (AUG)	75 (SEP)	(44) (OCT)	44 (AUG)	142 (SEP)	76
Teal	37 (AUG)	17 (SEP)	(38) (OCT)	28 (OCT)	12 (OCT)	26
Mallard	21 (OCT)	15 (JUL)	62 (JUL)	18 (AUG)	7 (JUL)	25
Pintail	1 (AUG)	0	0	0	0	0
Garganey	0	0	0	2 (AUG)	0	0
Shoveler	16 (OCT)	8 (OCT)	(7) (OCT)	5 (AUG)	16 (OCT)	11
Pochard	7 (AUG)	7 (AUG)	12 (AUG)	4 (JUL)	4 (AUG)	7
Tufted Duck	33 (AUG)	9 (AUG)	(11) (OCT)	9 (AUG)	9 (AUG)	15
Goldeneye	0	0	0	1 (OCT)	0	0
Little Grebe	13 (AUG)	7 (AUG)	7 (JUL)	5 (JUL)	5 (SEP)	7
Great Crested Grebe	3 (JUL)	2 (JUL)	2 (JUL)	2 (JUL)	2 (AUG)	2
Cormorant	1 (AUG)	4 (OCT)	0	2 (OCT)	1 (AUG)	2
Bittern	0	0	0	1 (OCT)	0	0
Little Egret	1 (AUG)	7 (AUG)	3 (SEP)	0	2 (AUG)	3
Grey Heron	4 (JUL)	3 (AUG)	0	3 (AUG)	2 (JUL)	2
Moorhen	10 (AUG)	5 (AUG)	13 (SEP)	16 (SEP)	3 (AUG)	9
Coot	209 (OCT)	171 (SEP)	(211) (OCT)	107 (JUL)	169 (SEP)	173
Oystercatcher	0	0	(1) (OCT)	0	0	0
Lapwing	2 (AUG)	34 (JUL)	2 (JUL)	83 (OCT)	110 (OCT)	46
Dunlin	0	0	0	2 (AUG)	2 (AUG)	1
Ruff	1 (SEP)	0	0	5 (AUG)	0	1
Snipe	4 (SEP)	1 (JUL)	0	0	3 (SEP)	2
Black-tailed Godwit	0	1 (AUG)	3 (SEP)	1 (AUG)	2 (OCT)	1
Curlew	6 (AUG)	13 (AUG)	0	46 (OCT)	39 (SEP)	21
Greenshank	1 (AUG)	0	0	0	0	0





# Table4a: Five-year autumn peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and October for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean of Peaks
Black-headed Gull	2 (AUG)	5 (JUL)	(33) (OCT)	14 (JUL)	1 (AUG)	11
Common Gull	1 (OCT)	0	0	2 (OCT)	0	1
Lesser Black-backed Gull	0	1 (JUL)	0	1 (JUL)	1 (AUG)	1
Herring Gull	3 (OCT)	3 (SEP)	(18) (OCT)	0	0	5
Great Black-backed Gull	0	0	(3) (OCT)	0	0	1
Common Tern	3 (JUL)	2 (JUL)	N/C	2 (JUL)	1 (JUL)	2





Table4b: Five-year winter peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between November and March for the winter in question and the species in

question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question. Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Mute Swan	10 (JAN)	9 (FEB)	(3) (NOV)	6 (DEC)	5 (DEC)	8
Bean Goose (Taiga)	0	0	1 (MAR)	0	0	0
Pink-footed Goose	0	0	9 (MAR)	0	0	2
Greylag Goose (British/Irish)	31 (JAN)	9 (FEB)	24 (MAR)	69 (MAR)	200 (JAN)	67
Canada Goose	254 (FEB)	173 (FEB)	(217) (NOV)	232 (MAR)	304 (DEC)	241
hybrid goose	2 (DEC)	0	1 (FEB)	0	2 (MAR)	1
Shelduck	0	1 (FEB)	3 (JAN)	2 (JAN)	3 (JAN)	2
Wigeon	252 (JAN)	637 (DEC)	387 (JAN)	295 (DEC)	200 (JAN)	354
Gadwall	28 (DEC)	30 (JAN)	8 (JAN)	20 (NOV)	8 (NOV)	19
Teal	160 (DEC)	183 (JAN)	68 (FEB)	114 (JAN)	44 (NOV)	114
Mallard	16 (FEB)	8 (FEB)	(20) (NOV)	14 (NOV)	14 (NOV)	14
Pintail	0	1 (NOV)	(0)	1 (DEC)	0	1
Shoveler	6 (DEC)	10 (FEB)	20 (JAN)	8 (FEB)	(25) (FEB)	14
Pochard	11 (DEC)	12 (FEB)	8 (MAR)	10 (MAR)	(4) (FEB)	10
Tufted Duck	16 (MAR)	30 (MAR)	16 (MAR)	21 (MAR)	17 (NOV)	20
Goldeneye	2 (FEB)	1 (JAN)	1 (DEC)	2 (JAN)	1 (NOV)	1
Little Grebe	1 (NOV)	2 (NOV)	(5) (NOV)	3 (MAR)	1 (JAN)	2
Great Crested Grebe	6 (MAR)	4 (MAR)	6 (MAR)	3 (MAR)	2 (MAR)	4
Cormorant	2 (JAN)	4 (DEC)	(9) (NOV)	4 (DEC)	1 (NOV)	4
Bittern	0	1 (NOV)	(0)	0	0	0
Little Egret	1 (NOV)	1 (DEC)	(0)	2 (JAN)	0	1
Grey Heron	5 (NOV)	1 (NOV)	3 (FEB)	1 (DEC)	0	2
Water Rail	1 (DEC)	1 (NOV)	(0)	1 (DEC)	0	1
Moorhen	10 (FEB)	28 (JAN)	7 (FEB)	3 (FEB)	5 (MAR)	11
Coot	196 (NOV)	201 (JAN)	231 (DEC)	142 (JAN)	292 (JAN)	212
Oystercatcher	3 (MAR)	2 (MAR)	(0)	1 (MAR)	2 (MAR)	2
Lapwing	52 (MAR)	10 (MAR)	8 (MAR)	10 (MAR)	14 (MAR)	19
Jack Snipe	1 (MAR)	0	(0)	0	0	0
Snipe	2 (MAR)	2 (NOV)	(0)	4 (DEC)	3 (NOV)	3
Black-tailed Godwit	0	1 (NOV)	(0)	0	0	0





Table4b: Five-year winter peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between November and March for the winter in question and the species in

question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question. Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Curlew	99 (MAR)	2 (DEC)	3 (FEB)	42 (MAR)	(50) (FEB)	39
Redshank	3 (MAR)	1 (NOV)	1 (DEC)	0	0	1
Black-headed Gull	199 (DEC)	0	23 (JAN)	9 (NOV)	54 (MAR)	57
Lesser Black-backed Gull	1 (NOV)	1 (DEC)	(0)	0	0	1
Herring Gull	6 (FEB)	3 (MAR)	(19) (NOV)	2 (JAN)	2 (NOV)	6
Great Black-backed Gull	1 (NOV)	1 (JAN)	1 (DEC)	0	0	1



### Five year summary for Haverton Hole North Table4c: Five-year spring peak counts, and month in which this was recorded, of each

species.

The value reported represents the highest count obtained between April and June for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Mute Swan	6 (APR)	7 (JUN)	6 (JUN)	5 (MAY)	6 (JUN)	6
Bean Goose (Taiga)	0	0	1 (APR)	0	0	0
Pink-footed Goose	0	0	7 (APR)	0	2 (APR)	2
Greylag Goose (British/Irish)	38 (APR)	32 (MAY)	21 (APR)	16 (APR)	47 (APR)	31
Canada Goose	68 (APR)	47 (MAY)	156 (APR)	77 (JUN)	87 (APR)	87
Barnacle Goose	0	2 (MAY)	2 (APR)	2 (MAY)	0	1
hybrid goose	2 (MAY)	1 (MAY)	0	0	0	1
Shelduck	4 (MAY)	3 (MAY)	2 (APR)	2 (APR)	1 (APR)	2
Wigeon	40 (APR)	0	4 (APR)	0	0	9
Gadwall	39 (JUN)	19 (MAY)	8 (MAY)	10 (APR)	16 (MAY)	18
Teal	34 (APR)	2 (APR)	5 (APR)	12 (APR)	40 (APR)	19
Mallard	14 (APR)	23 (JUN)	10 (APR)	19 (MAY)	21 (APR)	17
Garganey	0	0	1 (MAY)	0	0	0
Shoveler	17 (APR)	2 (JUN)	2 (APR)	0	2 (APR)	5
Pochard	21 (APR)	5 (MAY)	14 (APR)	9 (APR)	11 (APR)	12
Tufted Duck	31 (APR)	21 (JUN)	17 (APR)	16 (APR)	22 (APR)	21
Little Grebe	1 (APR)	7 (JUN)	7 (MAY)	4 (JUN)	8 (APR)	5
Great Crested Grebe	4 (APR)	4 (JUN)	3 (APR)	5 (MAY)	2 (APR)	4
Cormorant	0	0	1 (APR)	0	1 (MAY)	0
Little Egret	0	3 (JUN)	1 (APR)	2 (APR)	1 (APR)	1
Great White Egret	0	0	1 (APR)	0	0	0
Grey Heron	2 (APR)	2 (MAY)	2 (APR)	2 (MAY)	4 (MAY)	2
Water Rail	0	0	0	0	1 (MAY)	0
Moorhen	17 (APR)	6 (MAY)	1 (APR)	2 (JUN)	5 (JUN)	6
Coot	73 (APR)	34 (JUN)	70 (JUN)	24 (APR)	42 (APR)	49
Oystercatcher	3 (MAY)	2 (APR)	1 (MAY)	0	0	1
Lapwing	16 (MAY)	5 (APR)	1 (APR)	3 (MAY)	13 (APR)	8
Snipe	1 (APR)	0	0	0	0	0
Black-tailed Godwit	18 (MAY)	0	4 (JUN)	0	2 (MAY)	5
Curlew	3 (APR)	0	0	31 (APR)	0	7
Redshank	1 (JUN)	0	0	0	0	0





# Table4c: Five-year spring peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between April and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Black-headed Gull	3 (MAY)	14 (APR)	12 (APR)	10 (MAY)	49 (MAY)	18
Lesser Black-backed Gull	1 (MAY)	2 (APR)	2 (MAY)	1 (JUN)	5 (MAY)	2
Herring Gull	15 (MAY)	5 (APR)	0	2 (JUN)	1 (MAY)	5
Great Black-backed Gull	3 (MAY)	0	0	0	1 (APR)	1
Common Tern	1 (JUN)	1 (MAY)	N/C	1 (JUN)	1 (JUN)	1



#### Five year summary for Haverton Hole North

Table4d: Five-year annual peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Mute Swan	10 (JAN)	9 (FEB)	6 (JUN)	7 (OCT)	6 (SEP)	8
Bean Goose (Taiga)	0	0	1 (APR)	0	0	0
Pink-footed Goose	0	0	9 (MAR)	0	2 (APR)	2
Greylag Goose (British/Irish)	38 (APR)	32 (MAY)	24 (MAR)	69 (MAR)	200 (JAN)	73
Canada Goose	254 (FEB)	173 (FEB)	(217) (NOV)	232 (MAR)	304 (DEC)	241
Barnacle Goose	0	2 (MAY)	2 (APR)	2 (MAY)	0	1
hybrid goose	2 (MAY)	1 (MAY)	1 (FEB)	0	2 (MAR)	1
Shelduck	4 (MAY)	3 (MAY)	3 (JAN)	2 (APR)	3 (JAN)	3
Wigeon	252 (JAN)	637 (DEC)	387 (JAN)	295 (DEC)	200 (JAN)	354
Gadwall	43 (AUG)	75 (SEP)	(44) (OCT)	44 (AUG)	142 (SEP)	76
Teal	160 (DEC)	183 (JAN)	68 (FEB)	114 (JAN)	44 (NOV)	114
Mallard	21 (OCT)	23 (JUN)	62 (JUL)	19 (MAY)	21 (APR)	29
Pintail	1 (AUG)	1 (NOV)	0	1 (DEC)	0	1
Garganey	0	0	1 (MAY)	2 (AUG)	0	1
Shoveler	17 (APR)	10 (FEB)	20 (JAN)	8 (FEB)	(25) (FEB)	16
Pochard	21 (APR)	12 (FEB)	14 (APR)	10 (MAR)	11 (APR)	14
Tufted Duck	33 (AUG)	30 (MAR)	17 (APR)	21 (MAR)	22 (APR)	25
Goldeneye	2 (FEB)	1 (JAN)	1 (DEC)	2 (JAN)	1 (NOV)	1
Little Grebe	13 (AUG)	7 (AUG)	7 (JUL)	5 (JUL)	8 (APR)	8
Great Crested Grebe	6 (MAR)	4 (JUN)	6 (MAR)	5 (MAY)	2 (AUG)	5
Cormorant	2 (JAN)	4 (OCT)	(9) (NOV)	4 (DEC)	1 (AUG)	4
Bittern	0	1 (NOV)	0	1 (OCT)	0	0
Little Egret	1 (AUG)	7 (AUG)	3 (SEP)	2 (APR)	2 (AUG)	3
Great White Egret	0	0	1 (APR)	0	0	0
Grey Heron	5 (NOV)	3 (AUG)	3 (FEB)	3 (AUG)	4 (MAY)	4
Water Rail	1 (DEC)	1 (NOV)	0	1 (DEC)	1 (MAY)	1
Moorhen	17 (APR)	28 (JAN)	13 (SEP)	16 (SEP)	5 (JUN)	16
Coot	209 (OCT)	201 (JAN)	231 (DEC)	142 (JAN)	292 (JAN)	215
Oystercatcher	3 (MAY)	2 (APR)	(1) (OCT)	1 (MAR)	2 (MAR)	2
Lapwing	52 (MAR)	34 (JUL)	8 (MAR)	83 (OCT)	110 (OCT)	57
Dunlin	0	0	0	2 (AUG)	2 (AUG)	1





# Table4d: Five-year annual peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Ruff	1 (SEP)	0	0	5 (AUG)	0	1
Jack Snipe	1 (MAR)	0	0	0	0	0
Snipe	4 (SEP)	2 (NOV)	0	4 (DEC)	3 (SEP)	3
Black-tailed Godwit	18 (MAY)	1 (AUG)	4 (JUN)	1 (AUG)	2 (OCT)	5
Curlew	99 (MAR)	13 (AUG)	3 (FEB)	46 (OCT)	(50) (FEB)	42
Greenshank	1 (AUG)	0	0	0	0	0
Redshank	3 (MAR)	1 (NOV)	1 (DEC)	0	0	1
Black-headed Gull	199 (DEC)	14 (APR)	(33) (OCT)	14 (JUL)	54 (MAR)	70
Common Gull	1 (OCT)	0	0	2 (OCT)	0	1
Lesser Black-backed Gull	1 (MAY)	2 (APR)	2 (MAY)	1 (JUL)	5 (MAY)	2
Herring Gull	15 (MAY)	5 (APR)	(19) (NOV)	2 (JUN)	2 (NOV)	9
Great Black-backed Gull	3 (MAY)	1 (JAN)	(3) (OCT)	0	1 (APR)	2
Common Tern	3 (JUL)	2 (JUL)	N/C	2 (JUL)	1 (JUL)	2





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site. Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold
Mute Swan	1%	1%	1%	1%	2%	3%
Pink-footed Goose	N/A	0%	0%	0%	N/A	0%
Greylag Goose (British/Irish)	0%	5%	2%	5%	N/A	N/A
Canada Goose	*122%	*482%	*174%	*482%	N/A	N/A
Barnacle Goose	N/A	N/A	*2%	*2%	N/A	N/A
hybrid goose	*0%	*2%	*2%	*2%	N/A	N/A
Shelduck	N/A	0%	0%	0%	N/A	0%
Wigeon	2%	8%	0%	8%	1%	2%
Gadwall	30%	8%	7%	30%	13%	3%
Teal	1%	5%	1%	5%	1%	2%
Mallard	0%	0%	0%	0%	0%	0%
Pintail	0%	0%	N/A	0%	0%	0%

Species	Spring peak cf International Threshold	Annual peak cf International Threshold	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Mute Swan	2%	3%	6	8	6	8
Pink-footed Goose	0%	0%		2	2	2
Greylag Goose (British/Irish)	N/A	N/A	5	67	31	73
Canada Goose	N/A	N/A	61	241	87	241
Barnacle Goose	N/A	N/A			1	1
hybrid goose	N/A	N/A	0	1	1	1
Shelduck	0%	0%		2	2	3
Wigeon	0%	2%	81	354	9	354
Gadwall	3%	13%	76	19	18	76
Teal	0%	2%	26	114	19	114
Mallard	0%	0%	25	14	17	29
Pintail	N/A	0%	0	1		1





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site. Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold
Shoveler	6%	8%	3%	9%	3%	4%
Pochard	2%	3%	3%	4%	0%	0%
Tufted Duck	1%	2%	2%	2%	0%	0%
Goldeneye	0%	1%	N/A	1%	0%	0%
Little Grebe	4%	1%	3%	5%	0%	0%
Great Crested Grebe	1%	2%	2%	3%	0%	0%
Cormorant	1%	1%	0%	1%	0%	0%
Little Egret	*6%	*2%	*2%	*6%	0%	0%
Grey Heron	0%	0%	0%	1%	0%	0%
Water Rail	N/A	*2%	*0%	*2%	N/A	0%
Moorhen	0%	0%	0%	1%	0%	0%
Coot	10%	12%	3%	12%	1%	1%

Species	Spring peak cf International Threshold	Annual peak cf International Threshold	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Shoveler	1%	4%	11	14	5	16
Pochard	0%	0%	7	10	12	14
Tufted Duck	0%	0%	15	20	21	25
Goldeneye	N/A	0%	0	1		1
Little Grebe	0%	0%	7	2	5	8
Great Crested Grebe	0%	0%	2	4	4	5
Cormorant	0%	0%	2	4	0	4
Little Egret	0%	0%	3	1	1	3
Grey Heron	0%	0%	2	2	2	4
Water Rail	0%	0%		1	0	1
Moorhen	0%	0%	9	11	6	16
Coot	0%	1%	173	212	49	215

Data provided by the British Trust for Ornithology on behalf of The Wetland Bird Survey.

These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment.

For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment. Missing or unexpectedly low counts for gulls and terns should be treated with caution - counting these groups is optional and determination of count effort not always possible.





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017

represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site. Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold
Oystercatcher	0%	0%	0%	0%	0%	0%
Lapwing	1%	0%	0%	1%	0%	0%
Dunlin	0%	N/A	N/A	0%	0%	N/A
Ruff	*2%	N/A	N/A	*2%	0%	N/A
Snipe	0%	0%	0%	0%	0%	0%
Black-tailed Godwit	0%	0%	1%	1%	0%	0%
Curlew	2%	3%	1%	3%	0%	0%
Redshank	N/A	0%	0%	0%	N/A	0%
Black-headed Gull	0%	0%	0%	0%	0%	0%
Common Gull	0%	N/A	N/A	0%	0%	N/A
Lesser Black-backed Gull	0%	0%	0%	0%	0%	0%
Herring Gull	0%	0%	0%	0%	0%	0%

Species	Spring peak cf International Threshold	Annual peak cf International Threshold	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Oystercatcher	0%	0%	0	2	1	2
Lapwing	0%	0%	46	19	8	57
Dunlin	N/A	0%	1			1
Ruff	N/A	0%	1			1
Snipe	0%	0%	2	3	0	3
Black-tailed Godwit	1%	1%	1	0	5	5
Curlew	0%	1%	21	39	7	42
Redshank	0%	0%		1	0	1
Black-headed Gull	0%	0%	11	57	18	70
Common Gull	N/A	0%	1			1
Lesser Black-backed Gull	0%	0%	1	1	2	2
Herring Gull	0%	0%	5	6	5	9

Data provided by the British Trust for Ornithology on behalf of The Wetland Bird Survey.

These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment.

Hor some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment. Missing or unexpectedly low counts for gulls and terns should be treated with caution - counting these groups is optional and determination of count effort not always possible.

> The Wetland Bird Survey is a partnership jointly funded by the British Trust for Ornithology, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee, in association with the Wildfowl and Wetlands Trust, with fieldwork conducted by volunteers.





Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017 represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values

of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site.

Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold
Great Black-backed Gull	0%	0%	0%	0%	0%	0%
Common Tern	*4%	N/A	*2%	*4%	0%	N/A

Species	Spring peak cf International Threshold	Annual peak cf International Threshold	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Great Black-backed Gull	0%	0%	1	1	1	2
Common Tern	0%	0%	2		1	2





### Five year summary for Redcar and Coatham Sands South

#### Table1: Total Counts - All Species Combined.

Peak monthly total = maximum of the sum of the counts of all species within each month. Seasonal peaks = sum of the maximum counts of for each species within each Season.

Year	Peak M Total	Ionthly	Autumn Peak	Winter Peak	Spring Peak
12/13	1098	(JAN)	290	1960	306
13/14	1162	(FEB)	1173	1651	232
14/15	383	(FEB)	388	657	87
15/16	387	(APR)	271	558	506
16/17	917	(OCT)	987	558	347
MEAN		789	622	1077	296



## Five year summary for Redcar and Coatham Sands South

Table2: Five-year average monthly counts of each species.

Figure in parentheses give number of complete and incomplete counts upon which the average is based. Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Whooper Swan	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Shelduck	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Wigeon	0(1,4)	0(2,3)	4(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Teal	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Mallard	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	1(.,5)	0(3,2)	0(4,1)	0(.,5)
Eider	10(1,4)	1(2,3)	12(3,2)	31(1,4)	25(2,3)	10(2,3)	15(3,2)	1(.,4)	4(.,5)	5(3,2)	2(4,1)	0(.,5)
Long-tailed Duck	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	1(3,2)	1(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Common Scoter	21(1,4)	0(2,3)	0(3,2)	0(1,4)	31(2,3)	57(2,3)	30(3,2)	14(.,4)	7(.,5)	8(3,2)	0(4,1)	0(.,5)
Velvet Scoter	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	1(2,3)	6(3,2)	2(.,4)	4(.,5)	0(3,2)	0(4,1)	0(.,5)
Goldeneye	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Red-breasted Merganser	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	2(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Red-throated Diver	0(1,4)	0(2,3)	0(3,2)	1(1,4)	1(2,3)	0(2,3)	2(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Great Crested Grebe	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Cormorant	3(1,4)	2(2,3)	3(3,2)	12(1,4)	6(2,3)	2(2,3)	7(3,2)	2(.,4)	1(.,5)	6(3,2)	1(4,1)	1(.,5)
Shag	0(1,4)	0(2,3)	0(3,2)	2(1,4)	1(2,3)	2(2,3)	3(3,2)	0(.,4)	0(.,5)	1(3,2)	0(4,1)	0(.,5)
Little Egret	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Oystercatcher	9(1,4)	12(2,3)	277(3,2)	495(1,4)	142(2,3)	39(2,3)	6(3,2)	87(.,4)	1(.,5)	102(3,2)	3(4,1)	0(.,5)
Ringed Plover	1(1,4)	6(2,3)	2(3,2)	1(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	4(3,2)	4(4,1)	0(.,5)
Knot	0(1,4)	10(2,3)	0(3,2)	6(1,4)	1(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	5(3,2)	0(4,1)	0(.,5)
Sanderling	0(1,4)	21(2,3)	53(3,2)	34(1,4)	63(2,3)	103(2,3)	90(3,2)	26(.,4)	46(.,5)	36(3,2)	25(4,1)	0(.,5)
Purple Sandpiper	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	1(3,2)	0(4,1)	0(.,5)
Dunlin	3(1,4)	7(2,3)	5(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	1(3,2)	3(4,1)	0(.,5)
Bar-tailed Godwit	0(1,4)	0(2,3)	3(3,2)	5(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	2(4,1)	0(.,5)
Curlew	1(1,4)	5(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	4(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Redshank	0(1,4)	0(2,3)	0(3,2)	0(1,4)	29(2,3)	66(2,3)	73(3,2)	63(.,4)	82(.,5)	14(3,2)	0(4,1)	0(.,5)
Turnstone	1(1,4)	3(2,3)	2(3,2)	107(1,4)	24(2,3)	29(2,3)	50(3,2)	31(.,4)	19(.,5)	65(3,2)	2(4,1)	0(.,5)
Kittiwake	0(1,4)	6(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	1(3,2)	0(4,1)	1(.,5)
Black-headed Gull	26(1,4)	116(2,3)	75(3,2)	173(1,4)	94(2,3)	159(2,3)	128(3,2)	105(.,4)	55(.,5)	1(3,2)	0(4,1)	4(.,5)
Little Gull	0(1,4)	0(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Common Gull	1(1,4)	7(2,3)	2(3,2)	11(1,4)	20(2,3)	12(2,3)	206(3,2)	152(.,4)	2(.,5)	2(3,2)	0(4,1)	0(.,5)
Lesser Black-backed Gull	0(1,4)	1(2,3)	0(3,2)	0(1,4)	0(2,3)	0(2,3)	0(3,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)
Herring Gull	32(1,4)	39(2,3)	38(3,2)	62(1,4)	78(2,3)	97(2,3)	60(3,2)	45(.,4)	55(.,5)	35(3,2)	44(4,1)	32(.,5)
Great Black-backed Gull	0(1,4)	0(2,3)	8(3,2)	3(1,4)	3(2,3)	9(2,3)	3(3,2)	1(.,4)	15(.,5)	3(3,2)	0(4,1)	0(.,5)
Sandwich Tern	14(1,4)	10(2,3)	8(3,2)	1(1,3)	0(2,3)	0(2,3)	0(2,2)	0(.,4)	0(.,5)	1(3,2)	3(4,1)	7(.,5)



#### Five year summary for Redcar and Coatham Sands South

#### Table2: Five-year average monthly counts of each species.

Figure in parentheses give number of complete and incomplete counts upon which the average is based. Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Common Tern	6(1,4)	25(2,3)	0(3,2)	0(1,3)	0(2,3)	0(2,3)	0(2,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	3(.,5)
Arctic Tern	0(1,4)	0(2,3)	0(3,2)	0(1,3)	0(2,3)	0(2,3)	0(2,2)	0(.,4)	0(.,5)	0(3,2)	0(4,1)	0(.,5)





# Five year summary for Redcar and Coatham Sands South

Table3: Five-year peak monthly counts of each species. The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Whooper Swan	0	0	0	0	2	0	0	0	0	0	0	0
Shelduck	0	0	0	0	0	0	0	0	0	0	0	2
Wigeon	0	0	22	0	0	0	0	0	0	0	0	0
Teal	0	0	1	0	0	0	0	0	0	0	0	0
Mallard	0	0	0	0	0	0	0	0	3	0	0	0
Eider	10	6	29	55	74	16	40	3	10	9	5	1
Long-tailed Duck	0	0	0	0	2	0	3	2	2	1	0	0
Common Scoter	21	0	1	0	150	102	54	56	30	18	0	0
Velvet Scoter	0	0	0	0	0	1	10	8	10	0	1	0
Goldeneye	0	0	0	0	0	0	1	0	0	0	0	0
Red-breasted Merganser	0	0	0	1	0	0	4	0	0	0	0	0
<b>Red-throated Diver</b>	0	0	0	2	1	1	6	0	1	0	0	0
Great Crested Grebe	0	0	0	0	0	2	0	0	1	0	0	0
Cormorant	3	3	4	12	9	3	15	5	2	9	2	2
Shag	1	0	1	11	3	3	6	0	0	1	0	0
Little Egret	1	0	0	0	0	0	0	0	0	0	0	0
Oystercatcher	44	24	626	495	383	44	11	343	4	227	11	0
Ringed Plover	6	10	5	1	0	0	0	0	0	9	15	0
Knot	0	20	0	6	1	0	0	0	0	15	0	0
Sanderling	1	36	140	34	102	123	180	100	195	73	80	0
Purple Sandpiper	0	0	0	0	0	0	0	0	0	2	0	0
Dunlin	15	12	10	0	0	0	0	0	1	2	12	0
Bar-tailed Godwit	0	0	8	5	1	0	0	0	0	0	8	0
Curlew	5	9	0	1	0	0	0	12	0	0	0	0
Redshank	0	0	1	2	35	136	220	210	159	47	0	0
Turnstone	7	3	5	107	38	37	65	85	27	109	8	0
Kittiwake	0	18	1	0	0	0	0	0	0	2	0	3
Black-headed Gull	68	132	123	173	123	195	181	170	119	2	1	13
Little Gull	0	0	0	0	0	0	1	0	0	0	0	0
Common Gull	3	11	3	11	32	20	609	600	5	6	0	0
Lesser Black-backed Gull	2	3	0	0	0	0	0	0	0	0	0	0
Herring Gull	77	50	54	62	150	159	95	58	75	52	138	68
Great Black-backed Gull	1	1	15	4	5	16	6	4	75	6	0	2
Sandwich Tern	30	12	22	2	0	0	0	0	0	2	8	12





#### Five year summary for Redcar and Coatham Sands South Table3: Five-year peak monthly counts of each species.

The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Common Tern	20	115	0	0	0	0	0	0	0	0	0	16
Arctic Tern	0	1	0	0	0	0	0	0	0	0	0	0



#### Five year summary for Redcar and Coatham Sands South Table4a: Five-year autumn peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and October for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

						Mean
Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	or Peaks
Wigeon	0	(0)	(22) (SEP)	(0)	(0)	11
Teal	0	(0)	(0)	(0)	1 (SEP)	1
Eider	(30) (OCT)	(55) (OCT)	(7) (OCT)	(4) (OCT)	9 (OCT)	31
Common Scoter	21 (JUL)	(0)	(3) (JUL)	(0)	(0)	21
<b>Red-breasted Merganser</b>	(1) (OCT)	(0)	(0)	(0)	(0)	(1)
<b>Red-throated Diver</b>	(2) (OCT)	(0)	(0)	(1) (OCT)	(0)	(2)
Cormorant	3 (JUL)	3 (SEP)	(3) (JUL)	(6) (OCT)	12 (OCT)	6
Shag	(11) (OCT)	(1) (JUL)	(0)	(0)	(0)	(11)
Little Egret	0	(0)	(0)	(1) (JUL)	(0)	1
Oystercatcher	(1) (OCT)	626 (SEP)	(44) (JUL)	(7) (SEP)	495 (OCT)	561
<b>Ringed Plover</b>	(10) (AUG)	4 (SEP)	(6) (JUL)	(1) (AUG)	1 (AUG)	5
Knot	0	(0)	(0)	(0)	20 (AUG)	10
Sanderling	(12) (AUG)	140 (SEP)	(16) (OCT)	(4) (OCT)	36 (AUG)	88
Dunlin	(3) (AUG)	6 (SEP)	(15) (JUL)	(0)	12 (AUG)	11
Bar-tailed Godwit	0	8 (SEP)	(0)	(0)	5 (OCT)	4
Curlew	0	(0)	(1) (OCT)	(5) (JUL)	9 (AUG)	5
Redshank	0	1 (SEP)	(2) (OCT)	(0)	(0)	1
Turnstone	(3) (OCT)	1 (SEP)	(58) (OCT)	(5) (SEP)	107 (OCT)	55
Kittiwake	0	(18) (AUG)	(1) (SEP)	(0)	1 (AUG)	5
Black-headed Gull	123 (SEP)	(88) (OCT)	132 (AUG)	(122) (SEP)	173 (OCT)	143
Common Gull	0	(11) (AUG)	(3) (JUL)	(11) (AUG)	11 (OCT)	8
Lesser Black-backed Gull	0	(3) (AUG)	(0)	(0)	(0)	2
Herring Gull	44 (SEP)	(53) (JUL)	(56) (OCT)	(77) (JUL)	62 (OCT)	60
Great Black-backed Gull	(4) (OCT)	9 (SEP)	(0)	(2) (OCT)	15 (SEP)	12
Sandwich Tern	22 (SEP)	(30) (JUL)	(16) (JUL)	(16) (JUL)	12 (AUG)	21
Common Tern	0	(115) (AUG)	(3) (JUL)	(9) (AUG)	(6) (JUL)	27
Arctic Tern	0	(1) (AUG)	(0)	(0)	(0)	1



#### Five year summary for Redcar and Coatham Sands South Table4b: Five-year winter peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between November and March for the winter in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question. Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Whooper Swan	(2) (NOV)	(0)	(0)	0	0	1
Mallard	(0)	(3) (MAR)	(0)	0	0	1
Eider	40 (JAN)	(74) (NOV)	(19) (NOV)	(12) (JAN)	6 (JAN)	40
Long-tailed Duck	(0)	(0)	3 (JAN)	0	0	1
Common Scoter	(150) (NOV)	(6) (MAR)	(56) (FEB)	0	0	42
Velvet Scoter	1 (DEC)	(0)	8 (JAN)	0	10 (JAN)	5
Goldeneye	1 (JAN)	(0)	(0)	0	0	0
<b>Red-breasted Merganser</b>	2 (JAN)	(4) (JAN)	(0)	0	0	2
<b>Red-throated Diver</b>	1 (JAN)	(1) (DEC)	(0)	0	6 (JAN)	2
Great Crested Grebe	(0)	(2) (DEC)	(0)	0	0	1
Cormorant	4 (JAN)	(4) (NOV)	(4) (NOV)	(15) (JAN)	8 (JAN)	9
Shag	4 (JAN)	(1) (JAN)	(0)	(6) (JAN)	1 (JAN)	4
Oystercatcher	(383) (NOV)	(343) (FEB)	33 (DEC)	(2) (DEC)	11 (JAN)	193
Knot	(0)	(0)	(0)	1 (NOV)	0	1
Sanderling	123 (DEC)	(105) (JAN)	180 (JAN)	(195) (MAR)	38 (JAN)	134
Dunlin	(0)	(0)	(1) (MAR)	0	0	0
Bar-tailed Godwit	(1) (NOV)	(0)	(0)	0	0	0
Curlew	(0)	(12) (FEB)	(0)	(3) (FEB)	0	5
Redshank	(145) (MAR)	(136) (DEC)	(88) (MAR)	(42) (FEB)	220 (JAN)	220
Turnstone	65 (JAN)	(36) (JAN)	(85) (FEB)	(53) (JAN)	60 (JAN)	70
Black-headed Gull	195 (DEC)	(170) (FEB)	123 (DEC)	123 (NOV)	(119) (MAR)	153
Little Gull	(0)	(0)	(0)	(1) (JAN)	0	1
Common Gull	609 (JAN)	(600) (FEB)	10 (DEC)	32 (NOV)	(20) (DEC)	313
Herring Gull	159 (DEC)	(150) (NOV)	(46) (FEB)	68 (NOV)	(58) (FEB)	126
Great Black-backed Gull	(75) (MAR)	(4) (FEB)	1 (DEC)	5 (NOV)	1 (NOV)	17



#### Five year summary for Redcar and Coatham Sands South Table4c: Five-year spring peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between April and June for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean.

When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Shelduck	(2) (JUN)	0	(0)	0	(0)	1
Eider	8 (APR)	2 (APR)	(9) (APR)	0	(8) (APR)	5
Long-tailed Duck	0	1 (APR)	(0)	0	(0)	0
Common Scoter	5 (APR)	18 (APR)	(0)	0	(0)	8
Velvet Scoter	0	0	(0)	0	1 (MAY)	0
Cormorant	9 (APR)	7 (APR)	(1) (APR)	1 (APR)	(5) (APR)	6
Shag	1 (APR)	1 (APR)	(0)	0	(0)	1
Oystercatcher	80 (APR)	1 (MAY)	(0)	227 (APR)	(48) (APR)	103
Ringed Plover	9 (APR)	2 (APR)	(2) (MAY)	15 (MAY)	(1) (APR)	9
Knot	0	0	(0)	15 (APR)	(0)	5
Sanderling	48 (APR)	18 (APR)	(6) (MAY)	80 (MAY)	(73) (APR)	55
Purple Sandpiper	2 (APR)	0	(0)	0	(0)	1
Dunlin	0	2 (APR)	(0)	12 (MAY)	(0)	5
Bar-tailed Godwit	8 (MAY)	0	(0)	0	(0)	3
Redshank	2 (APR)	6 (APR)	(0)	1 (APR)	(47) (APR)	14
Turnstone	61 (APR)	25 (APR)	(11) (APR)	109 (APR)	(64) (APR)	65
Kittiwake	(3) (JUN)	0	(0)	0	(1) (APR)	1
Black-headed Gull	2 (APR)	1 (MAY)	(13) (JUN)	(4) (JUN)	(3) (JUN)	5
Common Gull	6 (APR)	0	(0)	0	(0)	2
Herring Gull	52 (APR)	138 (MAY)	(30) (APR)	(40) (JUN)	(68) (JUN)	95
Great Black-backed Gull	6 (APR)	2 (APR)	(2) (JUN)	1 (APR)	(0)	3
Sandwich Tern	2 (APR)	8 (MAY)	(12) (JUN)	(1) (JUN)	(12) (JUN)	9
Common Tern	0	0	(1) (JUN)	0	(16) (JUN)	3



#### Five year summary for Redcar and Coatham Sands South Table4d: Five-year annual peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Whooper Swan	(2) (NOV)	(0)	(0)	(0)	(0)	(2)
Shelduck	(2) (JUN)	(0)	(0)	(0)	(0)	(2)
Wigeon	0	(0)	(22) (SEP)	(0)	(0)	11
Teal	0	(0)	(0)	(0)	1 (SEP)	1
Mallard	0	(3) (MAR)	(0)	(0)	(0)	2
Eider	40 (JAN)	(74) (NOV)	(19) (NOV)	(12) (JAN)	9 (OCT)	41
Long-tailed Duck	0	1 (APR)	3 (JAN)	(0)	(0)	1
Common Scoter	(150) (NOV)	18 (APR)	(56) (FEB)	(0)	(0)	75
Velvet Scoter	1 (DEC)	(0)	8 (JAN)	(0)	10 (JAN)	6
Goldeneye	1 (JAN)	(0)	(0)	(0)	(0)	1
<b>Red-breasted Merganser</b>	2 (JAN)	(4) (JAN)	(0)	(0)	(0)	3
<b>Red-throated Diver</b>	(2) (OCT)	(1) (DEC)	(0)	(1) (OCT)	6 (JAN)	6
Great Crested Grebe	0	(2) (DEC)	(0)	(0)	(0)	1
Cormorant	9 (APR)	7 (APR)	(4) (NOV)	(15) (JAN)	12 (OCT)	11
Shag	(11) (OCT)	(1) (JUL)	(0)	(6) (JAN)	1 (JAN)	6
Little Egret	0	(0)	(0)	(1) (JUL)	(0)	1
Oystercatcher	(383) (NOV)	626 (SEP)	(44) (JUL)	227 (APR)	495 (OCT)	449
<b>Ringed Plover</b>	(10) (AUG)	4 (SEP)	(6) (JUL)	15 (MAY)	1 (AUG)	8
Knot	0	(0)	(0)	15 (APR)	20 (AUG)	12
Sanderling	123 (DEC)	140 (SEP)	180 (JAN)	(195) (MAR)	(73) (APR)	160
Purple Sandpiper	2 (APR)	(0)	(0)	(0)	(0)	2
Dunlin	(3) (AUG)	6 (SEP)	(15) (JUL)	12 (MAY)	12 (AUG)	11
<b>Bar-tailed Godwit</b>	8 (MAY)	8 (SEP)	(0)	(0)	5 (OCT)	7
Curlew	0	(12) (FEB)	(1) (OCT)	(5) (JUL)	9 (AUG)	7
Redshank	(145) (MAR)	(136) (DEC)	(88) (MAR)	(42) (FEB)	220 (JAN)	220
Turnstone	65 (JAN)	(36) (JAN)	(85) (FEB)	109 (APR)	107 (OCT)	94
Kittiwake	(3) (JUN)	(18) (AUG)	(1) (SEP)	(0)	1 (AUG)	7
Black-headed Gull	195 (DEC)	(170) (FEB)	132 (AUG)	123 (NOV)	173 (OCT)	159
Little Gull	0	(0)	(0)	(1) (JAN)	(0)	1
Common Gull	609 (JAN)	(600) (FEB)	10 (DEC)	32 (NOV)	(20) (DEC)	313
Lesser Black-backed Gull	0	(3) (AUG)	(0)	(0)	(0)	2





#### Five year summary for Redcar and Coatham Sands South Table4d: Five-year annual peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question Where a count is enclosed by parentheses this indicates that it was considered incomplete i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean. When all counts are considered to be incomplete the maximum replaces the mean.

Species	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	Mean Peak
Herring Gull	159 (DEC)	(150) (NOV)	(56) (OCT)	(77) (JUL)	(68) (JUN)	159
Great Black-backed Gull	(75) (MAR)	9 (SEP)	(2) (JUN)	5 (NOV)	15 (SEP)	26
Sandwich Tern	22 (SEP)	(30) (JUL)	(16) (JUL)	(16) (JUL)	12 (AUG)	21
Common Tern	0	(115) (AUG)	(3) (JUL)	(9) (AUG)	(16) (JUN)	29
Arctic Tern	0	(1) (AUG)	(0)	(0)	(0)	1

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### Five year summary for Redcar and Coatham Sands South

Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017 represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site.

Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Whooper Swan	N/A	1%	N/A	N/A	N/A	0%	N/A	N/A
Shelduck	N/A	N/A	0%	N/A	N/A	N/A	0%	N/A
Wigeon	0%	N/A	N/A	0%	0%	N/A	N/A	0%
Teal	0%	N/A	N/A	0%	0%	N/A	N/A	0%
Mallard	N/A	0%	N/A	0%	N/A	0%	N/A	0%
Eider	6%	7%	1%	7%	0%	0%	0%	0%
Long-tailed Duck	N/A	1%	0%	1%	N/A	0%	0%	0%
Common Scoter	2%	4%	1%	8%	0%	1%	0%	1%
Velvet Scoter	N/A	*10%	*0%	*12%	N/A	0%	0%	0%
Red-breasted Merganser	N/A	2%	N/A	4%	N/A	0%	N/A	0%
Red-throated Diver	N/A	1%	N/A	4%	N/A	0%	N/A	0%
Great Crested Grebe	N/A	1%	N/A	1%	N/A	0%	N/A	0%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Whooper Swan		1		(2)
Shelduck			1	(2)
Wigeon	11			11
Teal	1			1
Mallard		1		2
Eider	31	40	5	41
Long-tailed Duck		1	0	1
Common Scoter	21	42	8	75
Velvet Scoter		5	0	6
Red-breasted Merganser	(1)	2		3
Red-throated Diver	(2)	2		6
Great Crested Grebe		1		1

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### Five year summary for Redcar and Coatham Sands South

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(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold	Spring peak cf International Threshold	Annual peak cf International Threshold
Cormorant	2%	3%	2%	3%	1%	1%	1%	1%
Shag	N/A	0%	0%	1%	N/A	0%	0%	0%
Little Egret	*2%	N/A	N/A	*2%	0%	N/A	N/A	0%
Oystercatcher	18%	6%	3%	14%	7%	2%	1%	5%
Ringed Plover	1%	N/A	3%	2%	1%	N/A	1%	1%
Knot	0%	0%	0%	0%	0%	0%	0%	0%
Sanderling	55%	84%	34%	100%	7%	11%	5%	13%
Purple Sandpiper	N/A	N/A	1%	2%	N/A	N/A	0%	0%
Dunlin	0%	0%	0%	0%	0%	0%	0%	0%
Bar-tailed Godwit	1%	0%	1%	2%	0%	0%	0%	1%
Curlew	0%	0%	N/A	1%	0%	0%	N/A	0%
Redshank	0%	18%	1%	18%	0%	9%	1%	9%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Cormorant	6	9	6	11
Shag	(11)	4	1	6
Little Egret	1			1
Oystercatcher	561	193	103	449
Ringed Plover	5		9	8
Knot	10	1	5	12
Sanderling	88	134	55	160
Purple Sandpiper			1	2
Dunlin	11	0	5	11
Bar-tailed Godwit	4	0	3	7
Curlew	5	5		7
Redshank	1	220	14	220

Data provided by the British Trust for Ornithology on behalf of The Wetland Bird Survey.

These tabulations are based exclusively on data collected as part of the monthly Core Counts. For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment.

For some species (e.g. whiteing geese) data collected by other surveys may be more appropriate for the purpose of site assessment. Missing or unexpectedly low counts for gulls and terns should be treated with caution - counting these groups is optional and determination of count effort not always possible.

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### Five year summary for Redcar and Coatham Sands South

Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2016/2017 represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values

of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site.

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(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

	Autumn peak cf National	Winter peak cf National	Spring peak cf National	Annual peak cf National	Autumn peak cf International	Winter peak cf International	Spring peak cf International	Annual peak cf International
Species	Threshold	Threshold	Threshold	Threshold	Threshold	Threshold	Threshold	Threshold
Turnstone	11%	15%	14%	20%	4%	5%	5%	7%
Kittiwake	*10%	N/A	*2%	*14%	0%	N/A	0%	0%
Black-headed Gull	1%	1%	0%	1%	1%	1%	0%	1%
Little Gull	N/A	*2%	N/A	*2%	N/A	0%	N/A	0%
Common Gull	0%	4%	0%	4%	0%	2%	0%	2%
Lesser Black-backed Gull	0%	N/A	N/A	0%	0%	N/A	N/A	0%
Herring Gull	1%	2%	1%	2%	1%	1%	1%	2%
Great Black-backed Gull	2%	2%	0%	3%	0%	0%	0%	1%
Sandwich Tern	*42%	N/A	*18%	*42%	1%	N/A	1%	1%
Common Tern	*54%	N/A	*6%	*58%	2%	N/A	0%	2%
Arctic Tern	*2%	N/A	N/A	*2%	0%	N/A	N/A	0%

Species	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Turnstone	55	70	65	94
Kittiwake	5		1	7
Black-headed Gull	143	153	5	159
Little Gull		1		1
Common Gull	8	313	2	313
Lesser Black-backed Gull	2			2
Herring Gull	60	126	95	159
Great Black-backed Gull	12	17	3	26
Sandwich Tern	21		9	21
Common Tern	27		3	29
Arctic Tern	1			1

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Baseline Ornithology Report