



H2Teesside Project

Preliminary Environmental Information Report

Volume III – Appendices

Appendix 13A: Ornithology Baseline Report

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





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13A.0 ORNITHOLOGY BASELINE REPORT

13A.1 Introduction

13A.1.1 This report provides the ornithology baseline gathered to date for H2Teesside (the Proposed Development) in support of the Preliminary Environmental Impact (PEI) Report Chapter 13: Ornithology (PEI Report, Volume 1). The baseline presented herein forms the basis for the assessment of potential impacts of the Proposed Development on ornithological features within the defined Zone of Influence¹.

13A.1.2 The data presented have been gathered over a series of preliminary (Stage 1) surveys carried out between January and March (inclusive) 2022 and a desk study carried out in June 2022, to inform the Proposed Development preliminary design and site selection process. In September 2022 the surveys were resumed with an increased spatial scope to reflect the scale of the updated Proposed Development design and to provide coverage of breeding and passage periods for birds². Surveys and desk study activities to gather baseline data have been ongoing since that time and will continue through to at least August 2023.

13A.1.3 The baseline presented here is based on the desk study and the non-breeding bird field surveys undertaken by AECOM between January 2022 and March 2023 (inclusive). Data beyond this period will be heavily biased towards passage and breeding birds and, because these surveys are incomplete, the baseline for them cannot currently be presented or assessed.

Background to the Proposed Development

13A.1.4 Details regarding the Proposed Development are detailed in Chapter 4: Proposed Development (PEI Report, Volume I).

Survey Areas

13A.1.5 A selection of shortlisted sites for the proposed hydrogen generating infrastructure was identified in 2021. Based on the Proposed Development design iterations at that time, and ongoing design development since then, broad survey areas were identified, including:

- the Foundry, which covers the land proposed for the Main Site and its environs east of the River Tees;
- Seal Sands, which covers some of the connection corridors west of the River Tees but east of the A178; and
- North Tees Marshes, which covers the remainder of the connection corridors west of the River Tees and west of the A178.

13A.1.6 Further information on these survey areas is provided herein.

¹ The ZoI is defined in Chapter 13: Ornithology (PEI Report, Volume I).

² Bird behaviours can be divided into broad seasons termed “breeding” (to cover the reproductive periods for the majority of species) and “non-breeding”. The latter season can be further divided into “wintering” (during which time birds have settled into areas where they spend the winter feeding) and “passage” (when migratory birds migrate between breeding and wintering grounds).

Purpose

13A.1.7 This report describes the approach and findings of the ornithology baseline data gathering undertaken for the survey areas.

13A.1.8 The objectives of this ornithology baseline report are to:

- identify statutory and non-statutory biodiversity and nature conservation designations with ornithological interest features within the potential Zone of Influence (Zoi) of the Proposed Development; and
- identify a preliminary ornithological baseline for the relevant survey areas, to include key third party records and the results of bird surveys undertaken up to and including March 2023³.

13A.2 Wildlife Legislation and Guidance Relevant to Birds

Wildlife Legislation

13A.2.1 The following legislation and guidance are considered potentially relevant to the scope of the ornithology assessment:

- The Conservation of Habitats and Species Regulations (Habitats Regulations) 2017 (as amended);
- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019;
- Wildlife and Countryside Act (WCA) 1981 (as amended);
- Countryside Rights of Way (CRoW) Act 2000; and
- Natural Environment and Rural Communities (NERC) Act 2006.

13A.2.2 Prior to 31 December 2020, Annex 1 of the EC Birds Directive listed rare and vulnerable species of regularly occurring or migratory wild birds that were subject to special conservation measures. The Directive also provided for the designation of SPAs for the protection of these species, which formed part of the Natura 2000 network of sites protected by European wildlife legislation. European Union (EU) legislation as it applied to the UK on 31 December 2020 is now a part of UK domestic legislation as 'retained EU legislation'. Changes have been made to parts of the Habitats Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017 so that they effectively continue the legislation which implemented the EU Habitats and Species Directive and parts of the Wild Birds Directive through the provisions of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Most of these changes involve transferring functions from the European Commission to the appropriate authorities in England. All other processes or terms of the 2017 Regulations remain unchanged. Internationally designated wetlands 'Ramsar Sites' are protected under the CRoW Act 2000 and are not affected by the exit from the EU.

³ This has been selected as a cut off for baseline reporting because it includes data for at least one full wintering period. Baseline breeding bird data from surveys after March 2023 will not be available for reporting purposes until at least August 2023.

13A.2.3 Part 1 of the WCA affords general protection to all species of wild bird, and specific protection to certain species of bird in Schedule 1 (birds protected by special penalties). It is an offence (subject to exceptions) to:

- 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;
- take or destroy an egg of any wild bird; and
- disturb any wild bird listed on Schedule 1 of the WCA while nesting or disturb the dependent young of such a bird.

13A.2.4 The WCA 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 WCA 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 WCA be committed. The NERC Act 2006 strengthens the WCA further with respect to the protection of the nests of certain birds listed on Schedule Z1A, even when they are not in use.

13A.2.5 Through the National Planning Policy Framework (NPPF) and Section 40 of the NERC Act 2006, local planning authorities also have a duty to consider species listed on Section 41 (S41) of the Act as being of principal importance for nature conservation in England when considering a planning application (also referred to as ‘NERC S41’ species).

Guidance

13A.2.6 The UK Biodiversity Action Plan (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 sub-regional priorities for nature conservation and propose agreed actions to conserve/maintain/enhance/increase local Priority Species and Habitats.

13A.2.7 Tees Valley Nature Partnership (2012) identify 10 bird species that can be regarded as LBAP Priority Species on this basis. These are 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 (*Sternula albifrons*), bittern (*Botaurus stellaris*), swift (*Apus apus*) and yellow wagtail (*Motacilla flava*).

13A.2.8 Stanbury *et al.* (2021) have published lists of Birds of Conservation Concern (BoCC). Red List species are those whose breeding population or range is rapidly declining (50% or more in the last 25 years), recently or historically, and those of global conservation concern. Amber List species are those whose 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. Green List species are those not of immediate conservation concern. Non-

native species are classified as Not Assessed. 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 was a factor in determining the species for which BAPs were developed.

13A.3 Methods and Data Sources

Desk Study

- 13A.3.1 A desk study was undertaken to identify ecological designations specifically for their ornithological interest, as well as contemporary records of protected and notable species of potential relevance to the Proposed Development and locations of ornithological interest or sensitivity (such as habitats regularly used by roosting birds for which designated sites are notified). A summary of the data sources, search areas and data requested/received is provided in Table 13A-1. Desk Study areas are shown in Figure 13A-2, except where these are stated as being “data specific”, in which case the data received, and their spatial context are described in Section 4 (Results) and associated appendices to this report.
- 13A.3.2 A partial data set was acquired from British Trust for Ornithology (BTO) Wetland Birds Survey (WeBS) in May 2022 to reflect the spatial extent of the Proposed Development in its early design phase. Further data will be acquired to reflect the most up to date design, for inclusion in the reports and assessments supporting the final DCO Application. The results section therefore provides a limited data set from this source, and this will be updated in due course.
- 13A.3.3 In addition to the area-specific requests for data set out in Table 13A-1, Natural England were consulted on the scope of the initial surveys and assessment, at which time they supplied some additional information.
- 13A.3.4 Sharing of baseline data between this project and Net Zero Teesside (NZN) was agreed. Relevant baseline gathered for NZN project is included herein and is reported as first-hand (rather than third party) data in Section 13A.4. The NZN data include locations at which breeding bird surveys were undertaken and breeding bird assemblages were identified, as well as a number of species-specific records that are not currently provided by the data gathered specifically for this project. These locations are shown in Figure 13A-3.

Table 13A-1: Desk Study Sources and Search Areas

DATA SOURCE	SEARCH AREA	ACCESSED/DATA RECEIVED	DATA OBTAINED
Environmental Records Information Centre (ERIC) North East	Up to 2 km	August 2021, updated September 2022	Species records, non-statutory site locations, and interest features/reasons for designation



DATA SOURCE	SEARCH AREA	ACCESSED/DATA RECEIVED	DATA OBTAINED
Industry Nature Conservation Association (NCA)	Data specific	March 2022	Species records, roost, and breeding site locations for several species
Multi Agency Geographic Information for the Countryside (MAGIC) https://magic.defra.gov.uk/	Up to 15 km	November 2022	Statutory designated site locations (2 km for local statutory designations)
Joint Nature Conservation Committee (JNCC) website https://jncc.gov.uk/our-work/our-work-a-z/	Up to 15 km	November 2022	Reasons for designation and other information on international statutory designated sites
Natural England Designated Sites View website https://designatedsites.naturalengland.org.uk/	Up to 15 km	November 2022	Reasons for designation and other information on national and local statutory designated sites
British Trust for Ornithology (BTO) Wetland Birds Survey (WeBS)	Data specific	May 2022	Detailed count data for wetland birds occurring within selected wetland habitat count areas across Teesside
Net Zero Teesside baseline reports and Environmental Statement Ornithology Baseline Report (AECOM, 2021)	Data Specific	May 2023	Species records including breeding and non-breeding birds, gathered between 2018 and 2022.



Field Survey

Wetland Bird Counts

- 13A.3.5 The original scope of work included two high tide and two low tide bird counts in each of January, February, and March 2022 and within two broad survey areas (referred to as “The Foundry” and “Seal Sands”) that reflected the spatial extent of the Proposed Development at that time. Survey effort was limited by land access in January 2022 such that only one high and low tide survey was achieved in The Foundry survey area, and no surveys were possible in the Seal Sands Survey area.
- 13A.3.6 A further broad survey area (referred to as “North Tees Marshes”) was added in September 2022 to accommodate the larger spatial extent of the Proposed Development. Since this time surveys across all areas have continued monthly and will continue up to and including a minimum of August 2023.
- 13A.3.7 A summary of the wetland bird survey scope completed is provided in Table 13A-2. Survey metadata are provided in Annex A.



Table 13A-2: Summary of Wintering Bird Surveys Completed

NB: HT = High Tide, LT = Low Tide⁴

SITE ⁵	POSITION IN LANDSCAPE	JAN 2022	FEB 2022	MAR 2022	SEPT 2022	OCT 2022	NOV 2022	DEC 2022	JAN 2023	FEB 2023	MAR 2023
The Foundry	Coastal	1 HT 1 LT	2 HT 2 LT	2 HT 2 LT	1 HT 1 LT	1 HT 1 LT	1 HT 1 LT	1 HT 1 LT	1 HT 1 LT	1 HT 1 LT	1 HT 1 LT
Seal Sands	Coastal	No surveys	2 HT 2 LT	2 HT 2 LT	1 HT 1 LT	1 HT 1 LT	1 HT 1 LT	1 HT 1 LT	1 HT 1 LT	1 HT 1 LT	1 HT 1 LT
North Tees Marshes	Inland	No surveys	No surveys	No surveys	1 HT 1 LT						

⁴ A single survey was, in most cases, completed over 2-3 days due to the size of the survey area and the short survey window of 4 hours

⁵ Survey effort within The Foundry and Seal Sands survey areas was limited by land access in January 2022. North Tees Marshes survey area was not established until September 2022.

13A.3.8 The surveys followed the general principles of a Wetland Birds Survey (WeBS). The survey areas were divided into count sectors based on consideration of the following factors such that all habitat suitable for water birds within a minimum of 500 m of the footprint of each part of the Proposed Development Site was included in the survey:

- distribution of habitats and the known habitat requirements of birds within the different genera and taxonomic families likely to be encountered within the survey areas;
- the preliminary layout or locations of proposed infrastructure;
- the availability of suitable locations from which adequate visual coverage of habitats could be achieved;
- 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.

13A.3.9 These areas were extended in some cases to include habitats beyond 500 m where it was anticipated, based on habitat type and connectivity, that these were likely to have some functional importance and continuity with habitats used by wetland birds within 500 m of the Proposed Development Site, and that were within an area that could reasonably be included on each survey and that was readily accessible.

13A.3.10 The count sectors are shown in Figures 13A-4a (The Foundry), 13A-4b (Seal Sands) and 13A-4c (North Tees Marshes). Following the first survey in January 2022, the following changes were made to the sectors:

- Figure 13A-4a - Sectors 3, 4, 5, 5a, 18 and 19 were removed from the Foundry survey area due to a combination of disturbance levels, topographical and habitat conditions unsuitable for wetland birds and (in the case of Sector 18) distance from the footprint of the Proposed Development⁶. Sector 17 was never surveyed as it could not be accessed, although it was retained as a potential count sector for the duration of the surveys;
- Figure 13A-4b- Sectors 1, 3, 10 - 12, and 14-16 were removed from the Seal Sands survey scope due to habitat conditions unsuitable for wetland birds and consistent lack of access to this land;
- an additional sector (18a) was added to the Seal Sands survey area, to separate out the spit of land and the habitats within it (which include saltmarsh and saline lagoon) from the open intertidal habitats of the wider Seal Sands Bay;

⁶ Sector 18 was re-instated from September 2022 onwards following updates to the Proposed Development design.

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- Sectors 22 and 23 (and their respective sub-sectors) were added to the Seal Sands survey area to obtain better coverage of the lagoon and marsh habitats of Greenabella Marsh to the west of Seal Sands Bay;
 - a further sector (25) was added to the Seal Sands survey area in March 2023, to help address ongoing difficulties with gaining access to survey the intertidal habitats immediately adjacent to Navigator Terminal on the west bank of the River Tees, which is an area referred to herein as “Vopak Foreshore”.
- 13A.3.11 The following birds, which include all species that are reasons for the notification of the various coastal statutory designated sites within the Study Area (see Table 13A-3, Section 13A.4) were recorded during the counts, where observed:
- cormorants and shags;
 - waders;
 - terns, skuas, auks and gulls;
 - sawbills;
 - grebes;
 - divers;
 - herons;
 - wildfowl (including all ducks, geese and swans); and
 - kingfisher (*Alcedo atthis*).
- 13A.3.12 Surveys followed the standard WeBS protocol, involving the systematic counting of all water birds within each sector. Survey times, weather conditions, visibility and sources of disturbance were recorded for each count sector on each survey and are included in Annex A. Surveys were carried out as much as possible within two hours either side of the high or low tide (depending on the survey), however this period was extended where necessary to permit the coverage of all parts of the survey areas, considering the short daylengths during January and February and the tide times.
- 13A.3.13 Additional to the standard systematic bird counts, bird behaviours were also recorded using pre-determined behaviour codes (roosting, preening, feeding, loafing). Where conditions of access, visibility and time available for completion of surveys allowed, any locations where birds were found to be congregating in large tight or sedentary flocks, especially feeding areas and roosts, were recorded on survey maps and counts made of birds at those locations. The purpose of this was to provide spatial context to the count data such that habitats/locations regularly used by target species could be identified.

Limitations

- 13A.3.14 Species, particularly highly mobile ones such as birds, can be transient and their presence intermittent. Desk study data provide a snapshot of the presence of species rather than a comprehensive record of all the species that use the habitats

within a search area. Furthermore, they are dependent on records being collected and submitted to the relevant records centre, rather than being collected systematically by means for a formal survey protocol carried out at regular intervals. Therefore, the absence of a species record cannot be interpreted as the absence of a species within a search area. Conversely, the effects of habitat and other environmental changes (such as climate change) and other factors acting that influence the distribution and numbers of a given species over time means that the absence of a species record cannot be taken to mean that the species is entirely absent from a search area.

- 13A.3.15 It is possible that the restrictions on travel imposed by national government to help stem the spread of Covid-19 in 2020 and 2021 could have reduced the number of records submitted to records centres nationwide during this period. Therefore, the number of third-party bird records for these two years may be lower than would otherwise be expected. However, there is no strong indication of this in any of the data received.
- 13A.3.16 Bird counts could not be carried out across all parts of the survey areas on all surveys due to conditions of restricted access and/or certain conditions imposed by landowners when accessing private land. This, in combination with tide times and short daylengths prevented the complete coverage of survey areas during daylight hours on some of the surveys in January and February 2022. To mitigate the restrictions of short daylength, the survey window was extended slightly on some occasions beyond that of a standard WeBS count.
- 13A.3.17 Greenabella Marsh (Sectors 22 and 23 plus their respective subsectors within the Seal Sands survey area) was not surveyed on the low tide surveys of 9 and 22 March 2022 as to do so risked disturbance to potentially breeding avocet (*Recurvirostra avosetta*), which is a Schedule 1 bird under the Wildlife and Countryside Act 1982 (as amended). These sectors were included in the final survey on 30th March 2022 as there were no indications of this species breeding there by this time. Bird counts in these areas have been further limited by heavily restricted land access since September 2022. The surveys are ongoing until at least August 2023 and the status of sensitive breeding birds across the Survey Area will be kept under review to avoid disturbance to nesting Schedule 1 birds.
- 13A.3.18 This report does not include any first-hand data for breeding birds, surveys for which are ongoing. This will be reported in the final baseline report that accompanies the Environmental Statement supporting the DCO application. A limited set of relevant third-party data and NZT breeding bird data is included in this report.

13A.4 Results

- 13A.4.1 The following sections describe the baseline ornithological conditions recorded to date within the Study and Survey Areas. Tabulated summary results identifying relevant receptors for inclusion in the assessments within the PEI Report include a preliminary ecological value for each receptor (further detail around which is set out in Section 13.5 of Chapter 13: Ornithology, PEI Report, Volume I) to support

focussed EclA. These are identified with reference to the geographical level at which the receptor matters. The following frames of reference used herein are based on guidance published by the Chartered Institute of Ecology and Environmental Management (2021):

- International (generally this is within a European context, reflecting the general availability of good data to allow cross-comparison);
- National (Great Britain, but considering the potential for certain ecological features to be more notable (of higher value) in an England context relative to Great Britain as a whole);
- Regional (e.g. North-east);
- District (Hartlepool, Stockton-on-Tees or Redcar and Cleveland);
- Local (ecological features that do not meet criteria for valuation at a District or higher level, but that have sufficient value to merit retention or mitigation); and
- Negligible (common and widespread ecological features of such low priority that they do not require retention or mitigation at the relevant location to otherwise maintain a favourable nature conservation status).

Desk Study

Designated Sites

- 13A.4.2 Table 13A-3 summarises the designated sites within the Study Area (see Table 13A-1 for the search areas applied to different designations) and their spatial relationship to the Proposed Development Site. The designated sites are shown on Figure 13A-5 (statutory sites) and Figure 13A-6 (non-statutory sites).
- 13A.4.3 There are three Special Protection Areas (SPAs), two Ramsar sites, three Sites of Special Scientific Interest (SSSIs) and two National Nature Reserves (NNRs) within 15 km of the Proposed Development. There are four Local Nature Reserves (LNRs), 11 Local Wildlife Sites (LWS) and one Royal Society for the Protection of Birds (RSPB) Reserve within 2 km of the Proposed Development.



Table 13A-3: Designated Sites (notified for ornithological features) Within the Study Area

DESIGNATED SITE	INTEREST FEATURES(S)/REASON(S) FOR NOTIFICATION	ECOLOGICAL VALUE AND STATUS	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
Statutory				
Teesmouth and Cleveland Coast SPA	<p>Internationally important numbers of marine and shore birds, including:</p> <ul style="list-style-type: none"> ● Avocet (<i>Recurvirostra avosetta</i>) (Breeding); ● Knot (<i>Calidris canutus</i>) (Non-breeding); ● Ruff (<i>Calidris pugnax</i>) (Non-breeding); ● Redshank (<i>Tringa tetanus</i>) (Non-breeding); ● Sandwich tern (<i>Thalasseus sandvicensis</i>) (Non-breeding); ● Common tern (<i>Sterna hirundo</i>) (Breeding); ● Little tern (<i>Sternula albifrons</i>) (Breeding); ● Waterbird assemblage of 26,014 individual waterfowl including sanderling (<i>Calidris alba</i>), knot, shelduck (<i>Tadorna tadorna</i>), cormorant (<i>Phalacrocorax carbo</i>), shoveler (<i>Spatula clypeata</i>) and teal (<i>Anas crecca</i>). Other major components of the assemblage feature include wigeon (<i>Mareca penelope</i>), lapwing (<i>Vanellus vanellus</i>), herring gull (<i>Larus argentatus</i>) and black-headed gull (<i>Chroicocephalus ridibundus</i>). 	International	10 m north at closest point	Overlapping



DESIGNATED SITE	INTEREST FEATURES(S)/REASON(S) FOR NOTIFICATION	ECOLOGICAL VALUE AND STATUS	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
	In addition to breeding sites the SPA includes areas designated for marine foraging habitats for little tern and common tern that extend several kilometres out to sea and along the tidal River Tees; and terrestrial and intertidal foraging areas for avocet and ruff.			
North York Moors SPA	Designated for internationally important numbers of breeding birds including: <ul style="list-style-type: none"> • Golden plover (<i>Pluvialis apricaria</i>); and • Merlin (<i>Falco columbarius</i>) 	International	12.1 km south-east at closest point	8 km south-east at closest point
Northumbria Coast SPA	Designated for internationally important numbers of marine and shorebirds including: <ul style="list-style-type: none"> • Turnstone (<i>Arenaria interpres</i>) (breeding); • Purple sandpiper () (wintering); • Little tern (breeding); and • Arctic tern (<i>Sterna paradisaea</i>) (breeding). 	International	13.7 km north at closest point	11 km north at closest point
Teesmouth and Cleveland Coast Ramsar	The site qualifies as a Ramsar for the following Ramsar criteria (Natural England, 2020): Criterion 5 - Assemblages of international importance Species with peak counts in winter 26,786 waterfowl (5-year peak mean 2011/12-2015/16)	International	173 m north at closest point	Overlapping



DESIGNATED SITE	INTEREST FEATURES(S)/REASON(S) FOR NOTIFICATION	ECOLOGICAL VALUE AND STATUS	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
	<p>Criterion 6 - Species/populations occurring at levels of international importance</p> <p>Qualifying Species/populations (as identified at designation)</p> <p>Species with peak counts in spring / autumn: Redshank; 1,648 individuals representing an average of 1.1% of the East Atlantic population (1987-91)</p> <p>Species with peak counts in winter: Knot; 5,509 individuals representing an average of 1.6% of the NE Canada/Greenland/Iceland/UK population (5-year peak mean 1991/92-1995/96)</p> <p>Sandwich tern; 1,900 individuals representing an average of 4.3% of the GB population (1988-1992)</p>			
Northumbria Coast Ramsar	<p>The site qualifies as a Ramsar for the following Ramsar criteria (JNCC, 2000):</p> <p>Criterion 6 – Species/populations occurring at levels of international importance:</p> <ul style="list-style-type: none"> • Qualifying Species/populations (as identified at designation) – Species with peak counts in winter: 	International	13.7 km north at closest point	11 km north at closest point



DESIGNATED SITE	INTEREST FEATURES(S)/REASON(S) FOR NOTIFICATION	ECOLOGICAL VALUE AND STATUS	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
	<p>Purple sandpiper 787 individuals representing an average of 1.6% of the population (5-year peak mean for 1992/93 to 1996/97);</p> <p>Turnstone 1,739 individuals representing an average of 2.6% of the population (5-year peak mean for 1992/93 to 1996/97);</p> <p>Species with peak counts during the breeding season;</p> <p>Little tern 40 pairs representing an average of 1.7% of the GB population (5 year mean for 1993 to 1997),</p>			
<p>Teesmouth and Cleveland Coast SSSI</p>	<p>Nationally important features supported by a mosaic of coastal and freshwater habitats:</p> <ul style="list-style-type: none"> • >20,000 Non-breeding waterbirds; • Aggregations of breeding birds – avocet, common tern, little tern. • Aggregations of non-breeding birds – gadwall (<i>Mareca strepera</i>), knot, purple sandpiper, redshank, ringed plover(<i>Charadrius hiaticula</i>), ruff, sanderling, Sandwich tern, shelduck, shoveler; and, • Assemblages of breeding birds - Mixed: sand-dunes and saltmarsh, lowland open waters and their margins. 	<p>National</p>	<p>5 m north at closest point</p>	<p>Overlapping</p>



DESIGNATED SITE	INTEREST FEATURES(S)/REASON(S) FOR NOTIFICATION	ECOLOGICAL VALUE AND STATUS	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
Durham Coast SSSI	Designated for: <ul style="list-style-type: none"> • Aggregations of breeding birds – cormorant, fulmar (<i>Fulmarus glacialis</i>), kittiwake (<i>Rissa tridactyla</i>), little tern; and • Aggregations of non-breeding birds – purple sandpiper, sanderling. 	National	11.2 km north at closest point	9.4 km north at closest point
North York Moors SSSI	Designated for: <ul style="list-style-type: none"> • Aggregations of breeding birds – golden plover and merlin 	National	12.1 km south-east at closest point	8 km south-east at closest point
Teesmouth NNR	Designated for the following ornithological interest features: <ul style="list-style-type: none"> • >20,000 waterbird assemblage; • BAP breeding birds; waders, grey partridge, skylark (<i>Alauda arvensis</i>), linnet (<i>Linaria cannabina</i>), reed bunting (<i>Emberiza schoeniclus</i>); • Knot, redshank and shelduck (non-breeding); • Little tern (breeding); • Ringed plover (in spring); and, • Sandwich tern (post-breeding). 	National	1.8 km west at closest point	Overlapping



DESIGNATED SITE	INTEREST FEATURES(S)/REASON(S) FOR NOTIFICATION	ECOLOGICAL VALUE AND STATUS	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
Castle Eden Dene NNR	The NNR is Designated for habitats and species groups including birds ⁷ .	National	>15 km north-west	14.4 km north-west at closest point
Seaton Dunes and Common LNR	Aggregations of non-breeding birds - Knot, ringed plover, sanderling and turnstone.	District	2.9 km north-west at closest point	1.32 km north at closest point
Cowpen Bewley Woodland Country Park LNR	Variety of habitats and 80 species of bird	District	7.48 km west at closest point	Overlapping
Charlton's Pond LNR	Charlton's Pond consists of wetlands, amenity grassland and woodland with suitable habitat for wildfowl.	District	8.9 km south-west at closest point	513 m west at closest point
Billingham Beck Valley Country Park LNR	Colourful meadows, ponds, marsh and woodland. This wetland provides a home for plants and animals, including bird species ⁸ .	District	10.5 km south-west at closest point	1.4 km west at closest point
Non-statutory				
Phillips Tank Farm Grassland LWS	The area supports c3.7% of total SPA bird numbers plus breeding lapwing.	Regional	4.4 km west at closest point	Adjacent
Zinc Works Bird Field LWS	Good numbers of wintering and migratory waterbirds & very important for migratory passerines. >0.5% of the national population of	Regional	2.5 km north-west at closest point	1.3 km north at closest point

⁷ There is no formal list of species for which this site is notified

⁸ No specific details are provided for this site regarding species of bird present.



DESIGNATED SITE	INTEREST FEATURES(S)/REASON(S) FOR NOTIFICATION	ECOLOGICAL VALUE AND STATUS	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
	<p>passage ring ouzels (<i>Turdus torquatus</i>) recorded.</p> <p>Regularly holds more than 0.1% of the national population of any wintering or passage species and the site regularly holds more than 5% of the cited bird interest of the Teesmouth and Cleveland Coast SPA (this to include 5% of a cited individual bird population or of the combined water bird population, currently stated as 21,406).</p>			
Saltern Saltmarsh LWS	The area supports c3.7% of total SPA bird numbers and important site for breeding lapwing.	Regional	4.7 km west at closest point	78 m north-west at closest point
Saltholme RSPB Reserve	<p>The site is one of the largest breeding colonies of common terns in the UK and breeding lapwing (red list) are present, as well as being used by foraging peregrine (<i>Falco peregrinus</i>) and breeding species such as marsh harrier (<i>Circus aeruginosus</i>), Cetti's warbler (<i>Cettia cetti</i>) and little ringed plover (<i>Charadrius dubius</i>).</p> <p>Much of the reserve lies within the Teesmouth and Cleveland Coast SPA and SSSI.</p>	District	5.3 km south-west at closest point	Overlapping
Greenabella Marsh LWS	Rough grassland with wetland areas. Significant bird populations.	District	3.5 km west at closest point	Overlapping



DESIGNATED SITE	INTEREST FEATURES(S)/REASON(S) FOR NOTIFICATION	ECOLOGICAL VALUE AND STATUS	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
Greatham Creek North Bank Saltmarsh LWS	Designated mainly for saltmarsh vegetation. Some ornithological interest but not sufficient to merit LWS status on its own.	District	4 km west at closest point	Overlapping
Cowpen Bewley Woodland Country Park LWS	Variety of habitats and 80 species of bird.	District	6.8 km west	Overlapping
Coatham Marsh LWS	Designated for a range of wetland habitats, and of interest for a range of breeding and non-breeding birds.	District	1.3 km east at closest point	Adjacent
Seaton Common LWS	The site is a wet grassland which attracts large numbers of passage migrants over winter and is a breeding ground for birds in the summer months	District	2.5 km north-west at closest point	1.3 km north at closest point
Power Station Grassland and Wetland LWS	Ungrazed grassland with pools and large areas of scrub. The breeding bird community includes stonechat (<i>Saxicola rubicola</i>), sedge warbler (<i>Acrocephalus schoenobaenus</i>) and grasshopper warbler (<i>Locustella naevia</i>).	District	3.3 km north-west at closest point	877 m north at closest point
Portrack Marsh LWS	The site regularly holds more than 0.1% of the national population of any wintering or passage species of the cited bird interest of the Teesmouth and Cleveland Coast SPA and the site regularly holds more than 5% of the cited gadwall, shoveler and redshank population.	District	10.3 km south-west at closest point	1.9 km south-west at closest point



DESIGNATED SITE	INTEREST FEATURES(S)/REASON(S) FOR NOTIFICATION	ECOLOGICAL VALUE AND STATUS	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
Billingham Beck Valley LWS	Wetland providing es a home for plants and animals, including bird species ⁹ .	District	10.5 km south-west at closest point	1.4 km west at closest point

⁹ The site description does not specify species of birds present or their numbers.

Species Records

ERIC North East Records

- 13A.4.4 ERIC Northeast provided thousands of species records, a large sub-set (more than 74,000) of which are birds. While this serves to confirm the widely known fact that the Teesside area is a particularly well-recorded area, particularly with respect to birds, that is regularly watched by large numbers of amateur and professional ornithologists, there is little information within the data set pertaining to bird behaviours or habitat use that can be used to determine where the potential impacts of the Proposed Development would be expected to have the greatest impact on birds, nor can the data be used to determine specific impact avoidance, mitigation or compensation measures.
- 13A.4.5 The ERIC data were filtered by age, location, and description so that any records demonstrating regular non-breeding habitat use other than feeding were identified, since a large proportion of the records describe feeding behaviours in a general sense. Principally such habitat use would be restricted to roosting, therefore the data set was filtered to identify this behaviour. Unconfirmed records were omitted (i.e., only those records that the supplier states are “*considered correct*” were included). This process identified eight records of five species, which are summarised in Table 13A-4.
- 13A.4.6 Relevant records of breeding birds number only two, both of which were booming (calling) male bittern within Saltholme RSPB Reserve in 2012. All other records were of common and widespread species, and species that are not qualifying species of designated sites.

**Table 13A-4: Relevant Bird Records Supplied by ERIC North** [OBJ:OBJ]

SPECIES	CONSERVATION STATUS ¹⁰	DATE OF RECORD	LOCATION ¹¹	GRID REF	NUMBER OF BIRDS	ACTIVITY
Grey heron <i>Ardea cinerea</i>	Green	11/12/2017	Seaton Snook, Teesmouth	NZ5326	1	Roosting on Seaton Channel side of Snook at first light
Turnstone	Amber	11/12/2017	Seaton Snook, Teesmouth	NZ5326	1	Roosting on Seaton Channel side of Snook at first light
Long - eared owl <i>Asio otus</i>	Green	14/01/2017	Haverton Hole	NZ4823	1	Roosting
Long - eared owl	Green	14/01/2017	Haverton Hole	NZ4823	2	Roosting in scrub
Long - eared owl	Green	26/11/2017	Haverton Hole	NZ4923	1	
Long - eared owl	Green	17/11/2012	RSPB Saltholme	NZ5023	3	Roosting and watchpoint
Long - eared owl	Green	17/11/2017	RSPB Saltholme	NZ5022	1	Roosting in scrub
Long - eared owl	Green	22/11/2017	RSPB Saltholme	NZ5022	1	
Dunlin <i>Calidris alpina</i>	Red, Annex 1	05/08/2017	Seal Sands	NZ5225	1	Roosting over high tide
Knot	Amber, Ramsar SPA, SSSI	05/08/2017	Seal Sands	NZ5225	3	Roosting over high tide
Knot	Amber, Ramsar SPA, SSSI	28/05/2017	RSPB Saltholme	NZ5022	1	
Knot	Amber, Ramsar, SPA, SSSI	11/12/2017	Seaton Snook, Teesmouth	NZ5326	4	Roosting on Seaton Channel side of Snook at first light

¹⁰ Green/Amber/Red = status as listed in Birds of Conservation Concern; Annex 1 = Annex 1 of the Habitats Regulations (as amended); Schedule 1 = Schedule 1 of the Wildlife and Countryside Act 1981 (as amended); Ramsar/SPA/SSSI = a reason for notification of designated site(s). Further details in Section 13.2.

¹¹ Distances from the Proposed Development are not shown because the records are supplied at 10km grid square resolution



SPECIES	CONSERVATION STATUS ¹⁰	DATE OF RECORD	LOCATION ¹¹	GRID REF	NUMBER OF BIRDS	ACTIVITY
Bittern	Amber, Annex 1, Schedule 1	06/04/2012	Haverton Hole	NZ4823	1	Booming male
Bittern	Amber, Annex 1, Schedule 1	14/04/2012	RSPB Saltholme	NZ5023	1	Booming male

INCA Records

- 13A.4.7 INCA provided location-specific bird records with notes on habitat use. The non-breeding records include locations of several key wader roosts along the Teesside coast, within Seal Sands, Teesmouth and the River Tees channel. These are summarised in Table 13A-5. The full data set, including a map showing the records referenced to the tabulated data, is reproduced in Annex B (to be provided).
- 13A.4.8 All known roosts occur on intertidal habitats, or on terrestrial habitat immediately adjacent to intertidal habitats. Of particular importance for roosts are the habitats surrounding and adjacent to Seal Sands, particularly the eastern side of Seal Sands Bay, but there are also significant roosts on Bran Sands, South Gare and Coatham Sands. All of these are either adjacent to or within a short distance of the Proposed Development boundary.
- 13A.4.9 The list of breeding locations for SPA/SSSI birds is reproduced in Table 13A-6 and includes three qualifying species of Teesmouth and Cleveland Coast SPA, Ramsar and SSSI breeding at various locations along the Teesside coastline and within the North Tees Marshes either side of A178.



Table 13A-5: Teesside Wader Roosts (Source: INCA)

ROOST ID	NAME	MAIN SPECIES ¹²	ADDITIONAL INFO	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
1	Hartlepool North Sands below Britmag	Redshank, knot (in mid-hundreds at least, unclear if still occupied)	Predominantly around MHW ¹³ , not on the elevated made ground above the former Britmag site (although oystercatcher (<i>Haematopus ostralegus</i>) occasionally roost there too)	9.7 km north-west	7.83 km north
2	Hartlepool West Harbour roost	Turnstone, redshank, purple sandpiper	None	7.79 km north-west	5.82 km north
3	Newburn Bridge	Redshank, ringed plover , oystercatcher	None	7.11 km north-west	4.91 km north
4	North Gare	Knot , grey plover (<i>Pluvialis squatarola</i>), oystercatcher	None	2.87 km north-west	2.13 km north
5	Seaton Snook	Oystercatcher, grey plover, knot , dunlin (latter in autumn)	None	1.86 km north-west	927 m north
6	Greatham Creek saltmarsh	Curlew (<i>Numenius arquata</i>), redshank	None	4.96 km west	287 m west

¹² Species in bold font are qualifying features (either as individual species or assemblage species) of one or more of Teesmouth and Cleveland Coast SPA/Ramsar/SPA, Teesmouth and Cleveland Coast SSSI, Northumbria Coast SPA, Durham Coast SSSI, and Teesmouth NNR (see Table 13A-3)

¹³ Mean High Water Mark



ROOST ID	NAME	MAIN SPECIES ¹²	ADDITIONAL INFO	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
7	Brinefield Number 4 Tidal Pool	Lapwing, redshank, dunlin (latter in autumn)	None	4.46 km north-west	Overlapping
8	Greenabella Seawall and marsh	Redshank, curlew	Broad area	3.82 km west	12.25 m north-west
9	Seal Sands seawall/land east of intertidal project	Curlew	Broad area	3.27 km west	Overlaps
10	Seal Sands peninsula - 'Redshank corner'	Redshank, shelduck	Base of western side of the peninsula	2.15 km west	61 m north-west
11	Seal Sands peninsula - 'Oil Drum'	Shelduck, oystercatcher, curlew	Halfway up the western side of the peninsula	2.04 km west	434 m north
12	Seal Sands peninsula - 'Entrance to peninsula enclosure'	Shelduck, curlew, oystercatcher, redshank	Broad area	2.06 km west	775 m north
13	Seal Sands peninsula - 'Tip of peninsula'	Oystercatcher	Tip of peninsula	2.16 km west	909 m north
14	Middlesbrough Dock	Redshank	Approximate location	6.77 km south-west	2.59 km south-west
15	North Tees Mudflat seawall	Redshank	None	4.22 km south-west	653 m south-west



ROOST ID	NAME	MAIN SPECIES12	ADDITIONAL INFO	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
16	Bran Sands Island	Cormorant , oystercatcher (when exposed)	None	1.09 km north-west	213 m north
17	South Gare/ German Charlies	Oystercatcher, formerly (?) knot	None	1.82 km north	1.75 km north
18	Coatham Sands	200-300 Oystercatcher (but join South Gare / German Charlies roost if disturbed)	Beach. Birds move to the South Gare German Charlies roost if disturbed. One or two bar-tailed godwits (<i>Limosa lapponica</i>), very few dunlin, some sanderling, some black - headed gull , occasionally up to ten sandwich terns, etc.	484 m north-east	476 m north-east
19	Coatham Boating Lake	Redshank	None	3.05 km east	1.91 km east



Table 13A-6: Teesside SPA Species Breeding Locations (Source: INCA)

SPECIES	LOCATION NAME	NGR	YEAR	NUMBERS	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
Little Tern	Crimdon Denemouth	NZ489367	2018	72 pairs, 9 nests, no young fledged (owing to predation).	12.72 km north-west	10.1 km north-west
	South Gare	NZ558279	2018	1 pair, 1 nest, no young fledged (reasons unknown).	1.75 km north	1.65 km north
	Seaton Carew	NZ529294	2019	40-50 pairs, 36-38 nests, 38-40 young fledged.	4.5 km north-west	2.82 km north
	Crimdon Denemouth	NZ489367	2020	5 apparently occupied nests; 4 young fledged	12.72 km north-west	10.1 km north-west
	Seaton Carew	NZ529294	2020	60 apparently occupied nests; 3 young fledged. This location continued as the main breeding colony in 2021. No newer records than this are available for this species.	4.5 km north-west	2.82 km north
	South Gare	NZ558279	2020	Nesting attempt by a single pair	1.75 km north	1.65 km north
	North Gare	NZ539282	2020	Nesting attempt by a single pair	2.94 km north-west	2.18 km north
Common Tern	Saltholme	NZ502230	2018	263 nests, 147 young ringed.	5.89 km south-west	506 m west
	Cowpen Marsh	NZ505247	2018	24 nests, 24 young ringed.	5.18 km west	347 m west
	Portrack Marsh	NZ468195	2019	1-2 nests, 4 young fledged	10.53 km south-west	2.09 km south-west



SPECIES	LOCATION NAME	NGR	YEAR	NUMBERS	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
	Saltholme	NZ502230	2020	185 pairs in total but none fledged due to predation	5.89 km south-west	506 m west
	Saline Lagoon	NZ509252	2020	90 pairs, 41 chicks colour ringed	4.75 km west	27.4 m west
	Cowpen Marsh	NZ505247	2020	18 pairs, six young fledged	5.18 km west	347 m west
Avocet	North Tees Marshes	NZ509252	2018	22 nests, 8 young fledged from various locations. Grid Reference given is for No4 Brinefield Saline Lagoon, where 12 nests were recorded.	4.75 km west	27.4 m west
	Saline Lagoon	NZ509252	2019	12 nests, 20 young ringed	4.75 km west	27.4 m west
	Long Drag	NZ515245	2019	2 nests, outcome unknown	4.21 km west	Overlapping
	Greenabella	NZ512256	2019	2+ nests, 6 young ringed	4.46 km west	Overlapping
	Calor Gas Pool	NZ504217	2019	1 nest, 3-4 young fledged	6.31 km south-west	1.61 km south-west
	Saltholme	NZ502230	2020	19 pairs, no young fledged	5.89 km south-west	506 m west
	North Tees Marshes	NZ509252	2020	Numbers not known; some chicks fledged	4.75 km west	27.4 m west

Natural England

13A.4.10 Natural England commissioned a study to understand the distribution of wintering water birds at selected sites across Teesside (Percival, 2015), to inform the review of protected sites undertaken by Natural England at that time.

13A.4.11 The report describes the use by wintering water birds across several key areas north/west of the River Tees (all of which are within the natural gas connection corridors but outside the footprint of the Main Site), as shown in the figure reproduced from Percival (2015) in Annex C:

- Greatham Tank Farm, which overlaps the Proposed Development Boundary;
- Greenabella Marsh, which overlaps the Proposed Development Boundary;
- Cowpen Marsh, which is immediately west of the Proposed Development Boundary;
- Brinefield No. 4, which is within the Proposed Development Boundary;
- Long Drag and Seal Sands Foreshore (shown as “Seal Sands” on the plan in Annex C), which overlaps the Proposed Development Boundary;
- Vopak Foreshore and Brownfield, overlaps the Proposed Development Boundary; and
- North Tees Mudflat and Brownfield, which is 699 m south-east of the Proposed Development Boundary.

13A.4.12 A number of these areas are identified as supporting significant numbers of wintering wetland birds and, although some of them are described in rather general terms, there is clearly a high degree of consistency with the roost records supplied by INCA. Key locations include:

- Cowpen Marsh, which is important for wigeon, teal, mallard (*Anas platyrhynchos*), lapwing and curlew. Most species used the site for feeding, but lapwing also roosted and there were occasional gull roosts recorded (mainly herring gull and black-headed gull);
- Greenabella Marsh, which was used by significant numbers of wigeon, teal and shoveler and was a regular high tide roost for black-tailed godwit (*Limosa limosa*) and redshank. Most of the bird records were within the pools at the southern end of this area;
- North Tees Mudflat and brownfield supported important numbers of feeding wader and gulls at low tide, the latter also roosting here. The adjacent terrestrial habitats were used by small numbers of roosting and feeding curlew;
- Long Drag and Seal Sands brownfield was identified as important for feeding and roosting redshank within the pools at the western end of the area, and for roosting curlew which were recorded at several locations adjacent to the Emergency Access Road and within the grasslands immediately south of it.

13A.4.13 Additionally, several areas held relatively small numbers of wetland birds: Vopak foreshore was used by small numbers of feeding birds and as an occasional roost by cormorant; Greatham Tank Farm was shown to be important for water birds mainly moving to and from Cowpen Marsh; and Brinefield Number 4 held small numbers of feeding waders, shelduck and dabbling ducks.

British Trust for Ornithology (BTO) WeBS Data

13A.4.14 Low tide data were purchased for sectors counted in 2022-2023 within the Dabholme Gut – Bran Sands – Coatham Sands area, covering intertidal habitats that are within approximately 500m of the Proposed Development. Data for additional sectors beyond 500m were obtained where these are contiguous with those that lie within 500m of the Main Site, to provide continuity of baseline data for the section of coast and associated habitats west, north, and northeast of the Main Site. The low tide sectors for which data were purchased are shown on the plan in Annex D (to be provided), along with the complete data set provided by WeBS.

13A.4.15 Core Count (high tide) data were purchased for the same broad area. An equivalent plan of the Core Count sectors for which data were obtained, and the complete Core Count data set for those sectors, is included in Annex E (to be provided). While there are differences in the comparative extent of the low tide and core count sectors, it is possible (with one exception) to identify individual or groups of low tide sectors that are approximately analogous to the core count sectors, as set out in Table 13A-7.

Table 13A-7: Spatial comparison between BTO WeBS Low Tide and Core Count sectors

CORE COUNT SECTOR	EQUIVALENT LOW TIDE SECTOR(S)
Bran Sands South	DT21
Bran Sands North	DT23 – DT25, DT29
Coatham Sands North	DT25, DT27
Redcar and Coatham Sands South	DT28
Quarries and Lagoons	No equivalent

13A.4.16 The data received provide extremely detailed information on numbers of water birds within the Teesside area as a whole and within individual sectors, but the data lack detail regarding habitat use by or distribution of birds at a scale finer than sector-level. For the purposes of the rest of this section the Teesmouth and Cleveland Coast designations (Ramsar, SPA and SSSI) will be referred to as “the designations”.

13A.4.17 Key metrics are presented for low tide data and core count data (in Tables 13A-8 and 13A-9 respectively), focusing on those species for which the designated sites are notified.

13A.4.18 The low tide count data include 13 of the 20 species for which the designations are notified, although the metrics for total number of species recorded indicate that

collectively this area supports a much larger number of species regardless of their inclusion or otherwise as notified features of the designations. Gulls (particularly herring and black – headed) occur in relatively large numbers in all sectors (especially in Sector DT21), therefore no further narrative will be offered regarding these species.

- 13A.4.19 Of the species listed, those occurring on the open coastal habitat of Redcar and Coatham Sands (sectors DT26 – DT28) are restricted mainly to waders (redshank, knot and sanderling and very small numbers of ringed plover and purple sandpiper), with smaller numbers of cormorant and wigeon. Similar observations can be made for Bran Sands area (Sectors DT23 – DT25, and DT29), where redshank was by far the most abundant species at low tide, although none of the species were consistently counted in large numbers in this area and the metrics for number of species recorded overall were generally lower than in other areas. This observation is somewhat at odds with the data generated during AECOM’s surveys (paragraphs 13.1.68 – 13.1.95) and this serves to demonstrate the inherent variability of bird numbers and habitat use with time (which can occur for reasons of between - year variability in bird numbers as well as conditions experienced at the time of the baseline surveys), and the importance of using data collected over a suitable length of time and the use of multiple data sources for assessment purposes.
- 13A.4.20 Sector DT21 covers the section of the lower River Tees adjacent to the mouth of Dabholme Gut, and Dabholme Gut itself. The data indicate that at low tide, this area supports by far the largest number and variety of wetland birds of all the sectors for which data were obtained, with a wide range of waders and ducks gathering (presumably) to feed. Here, redshank, shelduck, teal, lapwing, gadwall and ringed plover numbers were exceptional in comparison with other sectors. Dabholme Gut is known to be of key importance for these species (Smith, 2011).



Table 13A-8: Mean count and mean density¹⁴ (birds per hectare) of Ramsar, SPA and SSSI birds in WeBS Low Tide count sectors in 2018/19¹⁵

SPECIES ¹⁶	PREFERRED HABITAT ¹⁷	WHOLE SITE	LOW TIDE SECTOR							
			DT21	DT23	DT24	DT25	DT26	DT27	DT28	DT29
Knot	Intertidal	31 (0.21)	-	-	0 (0.3)	-	-	-	29 (0.3)	-
Redshank	Intertidal & non-tidal	391 (0.74)	86 (12.21)	3 (0.14)	6 (0.75)	7 (0.19)	1 (0.09)	13 (0.85)	9 (0.9)	6 (0.16)
Sanderling	Intertidal	72 (0.47)	-	-	-	-	-	6 (0.37)	55 (0.58)	-
Shelduck	All habitats	140 (0.81)	129 (3.23)	-	-	-	-	-	-	1 (0.02)
Cormorant	All habitats	46 (0.03)	3 (0.08)	-	-	6 (0.05)	8 (0.05)	0 (0.01)	6 (0.02)	-
Teal	All habitats	797 (1.99)	677 (16.92)	-	-	-	-	-	-	-
Wigeon	All habitats	158 (0.37)	-	-	-	-	-	-	2 (0.01)	-
Lapwing	Intertidal & non-tidal	819 (4.48)	227 (32.36)	-	-	-	-	-	-	-
Herring gull	All habitats	1328 (0.85)	31 (0.78)	11 (0.29)	38 (3.15)	57 (0.47)	55 (0.39)	37 (0.96)	120 (0.44)	41 (1.17)

¹⁴ Mean density in parentheses. Mean counts of 0 accompanied by mean density of >0 are due to rounding down of mean count to the nearest whole number, in the case of low counts

¹⁵ Low tide counts cover the period November – February inclusive, during which time counts are undertaken monthly. Not all sectors are counted every month in this period (details of coverage are provided in the full WeBS data set in Appendix D)

¹⁶ Species not listed in the WeBS data set and those that are present as breeding species only are excluded from the table. Metrics for number of species metrics at foot of table are for all species included in data set.

¹⁷ Habitat categories as set by WeBS for survey and analysis purposes. N/A = Not applicable



SPECIES ¹⁶	PREFERRED HABITAT ¹⁷	WHOLE SITE	LOW TIDE SECTOR							
			DT21	DT23	DT24	DT25	DT26	DT27	DT28	DT29
Black-headed gull s	All habitats	479 (0.31)	60 (1.5)	28 (0.76)	6 (0.5)	14 (0.11)	17 (0.12)	62 (1.58)	99 (0.36)	5 (0.14)
Gadwall	All habitats	32 (0.18)	21 (0.52)	-	-	1 (0.0)	-	-	-	-
Purple sandpiper	Intertidal	3 (0.05)	-	-	-	-	-	0 (0.02)	-	-
Ringed plover	Intertidal	20 (0.15)	-	-	1 (0.09)	-	-	2 (0.15)	-	-
Number of species recorded – all habitats	N/A	16	11	4	4	6	6	5	7	4
Number of species recorded – Sub tidal	N/A	14	2	-	2	3	5	4	7	1
Number of species recorded – Intertidal	N/A	9	2	3	5	2	3	7	4	2
Number of species recorded – Intertidal and Non-Tidal	N/A	9	4	2	2	3	2	2	3	2
Total number of species recorded	N/A	48	19	9	13	14	16	18	21	9

-
- 13A.4.21 The Core Count data include the same 13 (out of 20) species for which the designations are notified, that were detected by the Low Tide counts (i.e., no additional species for which the designations were notified were recorded at High Tide within a broadly similar geographical area). As noted for the Low Tide data, herring and black – headed gulls were present in relatively large numbers in all sectors, these species being ubiquitous across Teesside coastal habitats. Therefore, no further narrative is offered for these species.
- 13A.4.22 Observations and inferences from the Core Count data are very similar to those for the Low Tide count data:
- The open coastal sands of Coatham Sands North and Redcar and Coatham Sands South supported predominantly waders (knot, redshank, sanderling, ringed plover, and small numbers of purple sandpiper with peak counts occurring in autumn and spring), relatively small numbers of ducks (teal and wigeon) with numbers peaking in autumn and winter, and cormorant;
 - Bran Sands Bay (covered by sector “*Bran Sands North*”) supported large numbers of waders (knot, redshank, sanderling, lapwing, and ringed plover with peak counts occurring between autumn and spring) and smaller numbers of ducks (shelduck and teal, with autumn and winter peak counts). Cormorant numbers were highest in this sector; and
 - Bran Sands South (which covers the River Tees channel, part of Dabholme Gut and Bran Sands Lagoon immediately to the north of Dabholme Gut) was notable for wintering redshank and lapwing, with ducks well represented by shelduck, teal and gadwall (peak counts for which occurred between January and March), and cormorant.
- 13A.4.23 The Core Count sector “*Quarries and Lagoons*” covers a large area of the dunes, dune ponds and dune slacks between the Main Site and the open coast of Coatham Sands. It should be noted, however, that this count sector overlaps the northern end of the Teesworks working site and a very small part of the northern corner of the Main Site, immediately to the south of South Gare Road. The habitats within the Teesworks site have been subjected to intensive ground works and demolition of buildings and other infrastructure in recent years and are highly disturbed/modified. Therefore, it is unlikely that significant numbers of wetland birds would have been counted here during WeBS counts.
- 13A.4.24 This sector supported small numbers of waders (redshank and lapwing) and ducks (shelduck, teal and wigeon). These species would ordinarily be drawn primarily to the series of ponds within the dune system; however, AECOM’s experience and knowledge of this area indicates that only one of the dune ponds (immediately adjacent to South Gare Road and approximately 170m east of the Foundry shortlisted site) has any open water habitat or marginal habitats attractive to these species (all other ponds having become relatively dry and dominated by dense bulrush *Typha* and reed *Phragmites australis* swamp). Most of the species listed in Table 13A-9 for this sector have been observed by the author at or close to this
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pond and it is highly likely that most of the birds counted in this sector and represented in Table 13A-9 show the same spatial distribution.



Table 13A-9: Five-year¹⁸ Mean peak and maximum peak¹⁹ high tide counts of Ramsar, SPA and SSSI species²⁰ within WeBS Core Count Sectors

SPECIES	CORE COUNT SECTORS				
	BRAN SANDS SOUTH	BRAN SANDS NORTH	COATHAM SANDS NORTH	QUARRIES AND LAGOONS	REDCAR AND COATHAM SANDS SOUTH
Knot	-	185 (253, Aug 2015)	73 (90, Aug 2019)	-	236 (680, Mar 2020)
Redshank	162 (190, Feb 2016)	208 (284, Sep 2018)	81 (214, Oct 2016)	18 (71, Mar 2016)	243 (330, Jan 2019)
Sanderling	-	15 (27, Aug 2019)	173 (279, Apr 2016)	-	259 (360, Aug 2018)
Shelduck	78 (118, Mar 2016)	3 (5, Dec 2018)	-	3 (11, Apr 2016)	-
Cormorant	50 (63 Aug 2015)	78 (117 Aug 2016)	16 (22, Jan 2018)	-	11 (15, Jan 2016)
Teal	286 (827, Dec 2018)	18 (53, Nov 2018)	36 (105, Sep 2016)	3 (10, Dec 2016)	1 (1, Sep 2016)
Wigeon	2 (7, Sep 2016)	0 (1, Oct 2018)	20 (20, Sep 2017)	0 (2, Oct 2016)	-
Lapwing	294 (640, Jan 2019)	407 (740, Dec 2016)	-	27 (61, Aug 2015)	-
Herring gull	264 (740, Aug 2015)	102 (188, Jan 2019)	171 (220, Apr 2018)	18 (32, May 2018)	158 (201, Sep 2018)
Black-headed gull	346 (570, Feb 2019)	41 (84, Jul 2019)	358 (1,232, Oct 2016)	24 (32, Oct 2015)	162 (261, Feb 2019)

¹⁸ Count years 2015/16 – 2019/20; a count “year” begins in July

¹⁹ Maximum peak and month of peak count in parentheses)

²⁰ Species with zero counts for the sectors listed are excluded from the table



SPECIES	CORE COUNT SECTORS				
	BRAN SANDS SOUTH	BRAN SANDS NORTH	COATHAM SANDS NORTH	QUARRIES AND LAGOONS	REDCAR AND COATHAM SANDS SOUTH
Gadwall	14 (45, Jan 2020)	-	-	-	-
Purple sandpiper	-	0 (2, Dec 2017)	6 (11, Feb 2019)	-	2 (2, Feb 2020)
Ringed plover	-	32 (72, May 2017)	110 (178, May 2019)	-	46 (129, Aug 2017)

NZT data

13A.4.25 Ornithological interest features relevant to the H2Teesside Proposed Development include several breeding bird assemblages, individual breeding bird species, and non-breeding birds²¹. These have been identified through a combination of bespoke surveys and third-party data, much of which are spatially and technically relevant to H2Teesside.

13A.4.26 In summary, the key areas of ornithological interest identified by the NZT project that are also potentially relevant to the Proposed H2Teesside development were identified as:

- The brownfield habitats, including semi-improved neutral grassland, ephemeral/short perennial and bare ground intersected by small standing and flowing freshwaters (ponds, streams, ditches and rivers/streams) and ditches within Teesworks, which supported a locally important breeding bird assemblage and small numbers of breeding and roosting species that are of no greater than local importance;
- Coatham Dunes, were identified as supporting a locally important assemblage (at Borough level) of breeding birds and provide a foraging resource for barn owl;
- Coatham Sands and Bran Sands were identified as important for feeding, roosting and loafing waders, gulls and terns;
- The mouth and channel of the River Tees were identified as important for foraging common tern;
- The north Tees Marshes up to and including Seal Sands Bay and Saltholme RSPB reserve were identified as important for breeding and wintering birds, with particular interest for marsh harrier, avocet, wintering ruff and roosting waders and shelduck;
- Scattered locations along the coastal sands north of the River Tees were identified as important for breeding SPA and SSSI species and roosting coastal birds (this was based upon the same data set presented in Tables 13A-5 and 13A-6);
- Breeding barn owl was identified at one location within Teesworks and in the wider area at RSPB Saltholme and on the North Tees Marshes west of Seal Sands Bay; and
- Some habitats within Teesworks supported breeding little ringed plover and breeding and roosting lapwing (although those habitats have since been subjected to intensive earthworks and site clearance and are no longer suitable for these species).

²¹ The list of designated sites relevant to NZT is identical that for H2Teesside.

13A.4.27 The relevant ornithological features are not set out in detail in this report but are summarised within Section 13.5 – Summary of key Locations for Birds, and Table 13A.13.

Field Surveys – Non-Breeding Wetland Bird Counts

13A.4.28 Bird counts using a WeBS method, particularly on estuarine or other large wetland sites, often generate large amounts of count data from which it can be difficult to extract meaningful trends or conclusions. Instead, the data collected should be used as a guide to assess relative ornithological risk associated with the Main Site and Connection Corridors, and the narrative and summary data below reflect this approach.

13A.4.29 Summary count data (peak counts by sector for each of The Foundry, Seal Sands and North Tees Marshes survey areas) are provided in (respectively) Appendices 13A-F, 13A-G and 13A-H for context, however these data are simplified versions of the full data set and, given that there are approximately 6 months remaining of the survey period, are not intended to inform detailed analysis at this stage.

13A.4.30 Large numbers of a wide variety of wetland birds, including waders, ducks, geese, sawbills, cormorants, and gulls (including qualifying species of the various coastal designated sites, and species that are not qualifying features) were recorded on all surveys. The total number of species recorded to date numbers 78, of which 20 are qualifying features of one or more of the Ramsars, SPAs and SSSIs listed in Table 13A-3. There is nothing exceptional about the count data in the context of the Teesside area's importance as a stronghold for such species, however the specific methods used for the purposes of this study have enabled some key locations to be identified based on their use as roosts and key feeding areas and this information is presented in the sections that follow.

The Foundry

13A.4.31 The habitats that occur immediately adjacent to the Foundry are within a busy industrial site characterised by active and defunct steelworks infrastructure, bulk storage areas, other industrial and ancillary infrastructure. This is punctuated by brownfield habitats, grasslands, occasional ponds, and scattered scrub. Beyond the limits of the working areas, these habitats merge into areas of semi-improved grassland, ephemeral/short perennial vegetation, scattered scrub, dunes, and dune grasslands (which to the north of the shortlisted site include dune slacks and ponds), beyond which are the coastal and intertidal habitats of the Teesside Coast and Teesmouth. Large parts of the survey area, including Redcar and Coatham Sands and Bran Sands to the north, are characterised by wide open sandy beaches. To the west of the shortlisted site, at the western edge of the survey area within the mouth of the River Tees, habitats are a combination of artificial structures (piers, dock walls), rocky and sandy shore, small inlets, and a tidal lagoon (Bran Sands Lagoon) and artificial tidal channel (Dabholme Gut).

13A.4.32 Low and high tide counts generated recorded similar numbers of wetland bird species (46 and 44 species respectively). The intertidal habitats of Coatham Sands (Sectors 1-2), Bran Sands Bay (Sectors 6-7 and adjacent terrestrial habitats within

sectors 8 and 8a), Bran Sands Lagoon (Sector 16) and Dabholme Gut (Sector 18) produced the largest species counts regardless of any designations; the largest numbers of qualifying species of Teesmouth and Cleveland Coast SPA, Ramsar and SSSI also occurred in these sectors. Sectors 3, 4, 5, 5a were not counted systematically and generated no records. Similarly Sectors 11, 17 and 19 within Teesworks collectively generated very few bird records.

- 13A.4.33 High tide counts followed a similar pattern, but Bran Sands Bay generated larger bird counts, which are likely to be related to the presence of a larger number of high tide roosts scattered around the perimeter of the Bay (paragraphs 13.1.76 – 13.1.78 and Table 13A-10).
- 13A.4.34 Larger numbers of birds were recorded within Sectors 8, 8a and 8b at high tide than at low tide, indicating that the terrestrial habitats here may have some importance to roosting birds during high tide. Sectors 2, 4, 5, 5a, 12 and 17 generated no records of wetland birds and sector 19 generated a peak count of only 4 herring gulls, however Bran Sands Lagoon and Dabholme Gut generated relatively large counts of birds, indicating that they provide attractive habitat to wetland birds at all tidal states.
- 13A.4.35 Bird roosts within the Foundry survey area are summarised in Table 13A-10 and shown on Figure 13A-7, with supporting narrative on these locations and other potentially key areas in the following paragraphs.


Table 13A-10: Details of Roosts Recorded During Surveys of the Foundry from January 2022 to March 2023

REFERENCE	DATE(S) RECORDED	DETAILS ²²	DISTANCE FROM MAIN SITE	DISTANCE FROM PROPOSED DEVELOPMENT BOUNDARY	TIDE
F1	25/01/22	Mixed gull roost (common and black – headed gulls)	836 m north-west	238 m north	Low
F2	25/01/22	Mixed gull roost (common and black – headed gulls), also loafing and feeding, at least 300 birds Oystercatcher roost, at least 600 birds	571 m north-east	547 m north-east	Low
F3	26/01/22 10/02/22 22/02/22 23/02/22 10/03/22 21/09/22	Cormorant /shag (<i>Phalacrocorax aristotelis</i>) (min 130); herring gull (min 116); common gull (min 26), great black-backed gull (<i>Larus marinus</i>), oystercatcher (min 11), grey plover (min 48), knot (55), dunlin (min 130), ringed plover (min. 10) plus small numbers of turnstone , redshank and sanderling on several rock spits/outcrops	1.09 km north-west	174 m north	High and Low
F4	26/01/22 17/02/22 29/03/22	Curlew (min 23), oystercatcher (min 24); redshank (70), turnstone (min 15)	796 m north-west	600 m north-east	High
F5	10/02/22	Teal roost	1.07 km west	118 m north	High

²² Counts provided where available. Numbers are minima (using the highest available count recorded) because it can be impossible to view all of habitat unit/roost site. Species in **bold font** are qualifying features (either as individual species or assemblage species) of one or more of Teesmouth and Cleveland Coast SPA/Ramsar/SPA/SSSI, Northumbria Coast SPA and Ramsar, and Durham Coast SSSI. Some locations include feeding as well as roosting birds.



REFERENCE	DATE(S) RECORDED	DETAILS ²²	DISTANCE FROM MAIN SITE	DISTANCE FROM PROPOSED DEVELOPMENT BOUNDARY	TIDE
F6	10/02/22 21/09/22	Mixed gull roost (common, black-headed and herring gulls)	379 m north-west	Within	High
F7	10/02/22 21/09/22	Herring gull roost	133 m south	Within	High
F8	10/02/22 21/09/22	Teal, lapwing roost; foraging redshank ; loafing black – headed gulls	713 m south-west	Within	High
F9	10/02/22 17/02/22 29/03/22	Redshank roost (min 17)	1.14 km north-west	936 m north	High
F10	21/09/22	Lapwing Bar-tailed godwit	533 m south-west	Within	High
F11	21/09/22	Teal Redshank Black-headed gull	848 m south	Within	High

13A.4.36 A large gull and oystercatcher roost occurred on the upper shores of Coatham Sands at low tide in January 2022, with sanderling, cormorant, and shag present on most surveys. This record is a close match to the records provided by INCA (see Annex B and Table 13A-5).

13A.4.37 Bran Sands Bay, as well as clearly being favoured by many species (ringed plover, redshank, oystercatcher, knot, dunlin, turnstone, curlew) as a feeding habitat, supported a cluster of roosts around its periphery, the most important of which occurs on the line of rocky outcrops northwards of the small peninsula at its western end, as far as Bran Sands Island, within Sector 7. The roosts here are often inundated at high tide resulting in a dynamic situation that involves movements to and from these roosts by a variety of waders (redshank, lapwing, curlew, oystercatcher), gulls, and cormorants, with movements to other roosts and exposed feeding areas within the wider Teesside area, including Seal Sands and occasionally the peninsula of land immediately south of the Bay. A small but regular redshank roost occurred in the small inlet on the north-eastern edge of Bran Sands Bay.

13A.4.38 Irrespective of the importance of the wider environs of the Teesside Coastline and the various ornithological designated sites that overlap it, based on the observed regularity and type of habitat use by wetland birds, the following should be regarded as the most important or sensitive areas for wetland birds within the Foundry survey area:

- Bran Sands Bay and the peninsula of land immediately south of it (Sectors 6, 7, 8a);
- Bran Sands Lagoon (Sector 16);
- Dabholme Gut (Sector 18); and
- Coatham Sands.

Seal Sands

13A.4.39 Most of the undeveloped habitats adjacent to Seal Sands Bay, along with the bay itself, provide a mix of habitats (open muds/sands; sandy and rocky shores; saline lagoons, ponds and pools; grasslands of varying types; tidal river channels; reedbeds; and saltmarsh) that can be exploited by a wide variety of wetland birds, and a continuity of habitats that enables birds to move freely and easily between them dependent on habitat preferences, conditions and ecological needs at any given time.

13A.4.40 Sectors 2 and 5 held no birds at low tide while sectors 5 and 7 held no birds at high tide. However, Sector 2 yielded records of only very small numbers of 2 species at high tide and can therefore be regarded as relatively barren with respect to non-breeding birds.

13A.4.41 Low tide counts generated more records overall of wetland birds than high tide counts. At low tide, the exposed mudflats within Seal Sands Bay attracted large numbers of mainly wading birds, reflected in the high counts and/or frequency of occurrence of species such as dunlin, curlew, knot, oystercatcher, grey plover, and redshank in sectors 18-20. A variety of ducks (mallard, teal, shelduck, pochard

Aythya ferina, tufted duck *Aythya fuligula* and shoveler) were also present regularly and/or in large numbers but with a distribution bias toward the more sheltered habitats such as the pools within Sectors 4, 22, 23, the saline lagoon within the headland at the eastern end of Seal Sands Bay (Sector 18a) and to a lesser extent the channel of Greatham Creek (Sectors 17, 17a and 21) immediately east of the A178.

- 13A.4.42 At high tide, the surrounding terrestrial habitats supported relatively larger number of birds and the majority of species were represented by ducks, geese, mergansers and gulls rather than waders.
- 13A.4.43 The terrestrial count sectors immediately to the south of Seal Sands Bay (2, 4, 6, 7, 8 and 9) generated small counts of a limited suite of waders and ducks. In the case of several species of wader (curlew, oystercatcher, turnstone and redshank) some of these counts were attributable to birds roosting and sometimes feeding along the sea wall and adjacent grasslands surrounding the Bay (Table 13A-11) at high tide.
- 13A.4.44 The low numbers of species from Sectors 22-23 (and sub-sectors) across Greenabella Marsh immediately to the west of Seal Sands Bay are likely to reflect a persistent lack of access to these survey areas since September 2022, rather than genuinely small counts, and therefore these figures should be treated with caution at this stage. However, these sectors typically support a small assemblage of ducks and waders and can be particularly well used during adverse conditions of strong winds and/or sea swell. At these times, and during advancing tides, movements of wetland birds were observed along Greatham Creek channel towards the saltmarshes west of the A178, and onto Greenabella Marsh. The habitats around some of the pools in Sector 22 are suitable for breeding Avocet and this is reflected in the records of breeding SPA species supplied by INCA (Table 13A-6 and the figure provided in Annex B).
- 13A.4.45 The open short grassland habitats, pools and channels within sectors G4 and G5 to the south of Greatham Creek consistently supported relatively large numbers of waders (mostly curlew and lapwing but also small numbers of oystercatcher, redshank and dunlin in Sector G5), with small numbers of Avocet and large numbers of several species of duck congregating within and immediately around the open water habitats at the northern end of G5. Based on their presence in the area, and the availability of suitable habitat, Schedule 1 waders such as avocet and little ringed plover might breed within Sector G5.
- 13A.4.46 Bird roosts within the Seal Sands survey area are summarised in Table 13A-11 and shown on Figure 13A-8, with supporting narrative on these locations and other potentially key areas in the following paragraphs.



Table 13A-11: Details of Roosts Recorded During Stage 1 Surveys of Seal Sands from January 2022 to March 2023

REFERENCE	DATE(S) RECORDED	DETAILS ²³	DISTANCE FROM MAIN SITE	DISTANCE FROM PROPOSED CONNECTION CORRIDORS	TIDE
SS1	11/02/22	Curlew roost	3.85 km west	23.5 m north-west	High
SS2	11/02/22	Oystercatcher roost	4.04 km west	Within	High
SS3	11/02/22	Turnstone roost	2.97 km west	Adjacent	High
SS4	17/02/22	Feeding and roosting curlew (9)	3.26 km west	Adjacent and within	High
SS5	17/02/22	Feeding curlew (1) and oystercatcher (6)	2.55 km west	Overlaps	High
SS6	17/02/22	Roosting shag (<i>Phalacrocorax aristotelis</i> , 5)	2.03 km west	37.23 m north-west	High
SS7	30/03/22	Small oystercatcher roost on seawall	3.35 km west	8.66 m north-west	High
SS8	30/03/22	Redshank roost	2.14 km west	47.62 m north-west	High
SS9	13/12/22	Red-breasted merganser (<i>Mergus serrator</i> ; 7) Herring gull (1) Oystercatcher (2)	4.02 km west	Within	Low
SS10	19/12/22	Teal (74) Wigeon (166) Redshank (6)	4.41 km west	Within	High

²³ Counts provided where available. Where provided, numbers are minima using the highest count available. Species in **bold** font are qualifying features (either as individual species or assemblage species) of one or more of Teesmouth and Cleveland Coast SPA/Ramsar/SSSI, Northumbria Coast SPA and Ramsar, Durham Coast SSSI. Some locations include feeding as well as roosting birds.



REFERENCE	DATE(S) RECORDED	DETAILS ²³	DISTANCE FROM MAIN SITE	DISTANCE FROM PROPOSED CONNECTION CORRIDORS	TIDE
		Dunlin (20) Tufted duck (<i>Aythya fuligula</i> , 4) Little grebe (1) Black-headed gull (2) Gadwall (14)			



13A.4.47 The limited roost records in Table 13A-11 point to the Seal Sands area supporting roosting birds predominantly at high tide, which is consistent with the observation that at low tide the extensive exposed intertidal substrates within the bay provide a significant feeding resource that is both relatively sheltered from strong onshore winds and is readily exploited by foraging birds. Additionally, the data support the expectation that the primary interest of this area is as a feeding resource at low tide, with the surrounding onshore habitats being exploited preferentially at high tide when a combination of shelter and foraging resources are required.

13A.4.48 None of the roosts summarised in Table 13A-11 were recorded on more than a single survey, however the records do broadly concur with those supplied by INCA (Table 13A-5 and Annex B), the findings of Percival (2015) and with advice provided by Natural England during an informal consultation meeting²⁴, including the records of feeding and roosting curlew within and immediately adjacent to the footprint of the shortlisted site.

13A.4.49 In addition to the roosts observed above, and irrespective of the narrative in previous paragraphs, the following areas held large numbers of birds on all surveys and should be regarded as integral to the function of Seal Sands Bay and associated habitats as a key part of the Teesmouth and Cleveland Coast Ramsar/SPA/SSSI:

- Seal Sands Bay was occupied by large numbers of feeding waders at low tide;
- Sector 18a (the headland at the east of Seal Sands Bay and the sheltered saline lagoon and saltmarsh habitats within it) held large numbers of feeding and roosting waders and ducks, plus smaller numbers of gulls, on all surveys (High and Low Tide); and
- Greenabella Marsh was important as a feeding refuge and roost (regardless of tidal state) for waders and ducks. The habitats further inland, to the west, provide further wetland habitat of high value that is contiguous with Greenabella Marsh and is connected to Seal Sands Bay by Greatham Creek. This is discussed further in the following section “North Tees Marshes”.

North Tees Marshes

13A.4.50 The North Tees Marshes survey area covers a large expanse of saltmarsh, reedbed and wet grassland habitats intersected by a network of tidal creeks and channels, largest of which is Greatham Creek, which drains into Seal Sands Bay. The survey area also includes agricultural land farmed for arable and livestock to the north of Greatham Creek, south of the A1185 and northwest of the railway line that intersects the western edge of the survey area. Additionally, the ponds within Cowpen landfill site are included in the survey area, as are the grasslands and man-made pools within the “Phillips Tank Farm” oil storage site at the northern end of the survey area.

13A.4.51 Target species were recorded within almost all sectors at both high and low tide. The distribution of birds at low tide appears to be more diffuse than at high tide,

²⁴ Natural England -Initial Engagement, 14th February 2022. In which the relative importance of the sea wall around the perimeter of Seal Sands Bay and some of the adjacent brownfield grasslands for roosting and feeding waders was highlighted.



- presumably because of the larger areas of habitat available to a greater range of species when intertidal habitats are exposed. However, sectors G9 and B13 at high tide and B19 at both low and high tide returned zero counts. These sectors either offer very little suitable habitat for wetland birds, being a combination of overgrown grassland and/or hard standing; and/or are relatively disturbed by passing human traffic and farm activity. Cowpen landfill ponds (sectors B7 – B12) attracted large numbers of ducks and geese and their relative attractiveness may have contributed to the zero counts within the adjacent stubble field of B13.
- 13A.4.52 The majority of target species occurred in large numbers across the low-lying wet and open habitats either side of the lower reaches of Greatham Creek at both tides (though peak counts were collectively larger at low tide), with numbers dropping away on the north side of Greatham Creek (with the notable exception of Sectors G13 and G13a Phillips Tank Farm) and the highest numbers (both of species and of individuals) occurring in Sectors G3, G6, G7, B15 and B16. The counts within B16 are likely to under-represent the true contribution of this sector to the overall count totals and species numbers because this sector was not easily viewed with the available land access for most of the surveys to date and potential viewpoints from B18 could not be used without unacceptable levels of disturbance to birds on the Creek below.
- 13A.4.53 At both low and high tides, the fields southwest of the A1185 between Saltholme Substation and the village of Cowpen Bewley returned modest but fairly consistent peak counts of a limited range of gulls (mostly black-headed), waders (curlew, lapwing, redshank and snipe) and ducks (mallard and teal). On the opposite side of the road, the grassland and ephemeral pools within Sector G2 returned consistent counts of ducks (shoveler, teal, mallard, wigeon, shelduck, gadwall) and waders (curlew, lapwing, redshank and anecdotally^[25], black-tailed godwit) plus gulls (black-headed)²⁵.
- 13A.4.54 Table 13A-12 and Figure 13A-9 summarise the species recorded feeding and roosting on mass within this survey area. However, there is no discernible pattern of habitat use apparent within these data. This is primarily because the expanse of saltmarsh and wetland habitats is so large, and because high tide conditions rarely inundate all of the habitats; typically, the exposed muds and sands of the tidal pool, channels and creeks are submerged at high tide, but the vegetated banks and plateaux between them remain exposed at all times. Consequently, at all tides the distribution of birds is rather diffuse at the scale of the whole survey area.
- 13A.4.55 There is some evidence of occasional use of the agriculturally improved land immediately west of the railway line as a roost and/or feeding area (roost NTM7), mostly at high tide, as evidenced by the presence of a lapwing and gull roost recorded in sector B24 and the presence on a number of counts of small numbers of geese, waders, and (within the upper reaches of Greatham Creek) small numbers of mallard and teal (see Annex H).

²⁵ Not recorded during formal surveys, but the author has noted the occasional presence of this species when passing through the survey area.


Table 13A-12: Details of Roosts Recorded During Surveys of the North Tees Marshes from January 2022 to March 2023

REFERENCE	DATE(S) RECORDED	DETAILS ²⁶	DISTANCE FROM MAIN SITE	DISTANCE FROM CONNECTION CORRIDORS	HIGH OR LOW TIDE
NTM1	22/09/22	Redshank Herring gull Lesser black-backed gull Black-headed gull	4.93 km west	270 m north-west	High
NTM2	22/09/22	Redshank Dunlin Curlew	5.33 km west	705 m north-west	High
NTM3	20/12/22	Lapwing Black-tailed godwit Redshank Teal Dunlin Wigeon	4.91 km west	236 m west	High
NTM4	20/12/22	Black-tailed godwit Redshank Dunlin Teal	4.76 km west	83 m west	High

²⁶ Counts provided where available. Where provided, numbers are minima using the highest count available. Species in **bold** font are qualifying features (either as individual species or assemblage species) of one or more of Teesmouth and Cleveland Coast SPA/Ramsar/SPA/SSSI, Northumbria Coast SPA, Durham Coast SSSI. Some locations include feeding as well as roosting birds.



REFERENCE	DATE(S) RECORDED	DETAILS ²⁶	DISTANCE FROM MAIN SITE	DISTANCE FROM CONNECTION CORRIDORS	HIGH OR LOW TIDE
5	18/01/23	Wigeon (245) feeding and roosting on banks adjacent to inundated channel	4.7 km west	85 m west	High
NTM6	18/01/23	Lapwing (117) Black-headed gull (34)	7.28 km west	1.08 km west	High

Breeding Bird Surveys

13A.4.56 To be completed when surveys completed.

Laydown sites – North Tees; Wilton International

Incidental records

13A.4.57 This section summarises the occurrence of species and supporting habitats that have been noted while undertaking formal surveys for wetland birds, rather than through any formal recording protocol.

13A.4.58 A barn owl roost has been noted at each of the following locations:

- Underneath the arch of a railway flyover at NGR NZ4929 2627, where pellets and white splash were observed; and
- At a disused brick building (assumed to be a pumping house) adjacent to the saltmarshes north of Greatham Creek at NGR NZ5056 2606, where extensive white splash, numerous pellets of various ages and several moulted adult female feathers were observed.

13A.4.59 The latter location includes a limited amount of habitat suitable for barn owls to nest. It is likely to be used all year round for roosting and, potentially for part of the year as a breeding site. The former location is likely to be used as a roost site only because it does not contain any suitable habitat for nesting or rearing young, possessing no safe ledges on which to lay eggs nor any shelter from adverse weather and daylight.

13A.4.60 Additionally, there is a limited area of apparently unmanaged grassland with a tall sward and potentially a substantial layer of leaf litter beneath it that could support a population of small mammals. This is likely to constitute suitable foraging habitat for barn owls.

13A.4.61 Avocet were noted in late March 2023 feeding around the saline pools at the northern end of Sector G5 and this location might ultimately support one of more breeding pairs of this species. Avocet have bred historically adjacent to the lower reaches of Greatham Creek channel (see Table 13A-6 and Annex B).

13A.5 Summary of Key Locations for Birds

13A.5.1 Irrespective of the presence of any designated sites, the entirety of the Teesside coast can be considered to support significant populations of non-breeding birds. The baseline data presented in this report have identified some locations or broad areas that are of potentially greater sensitivity due to their proximity to the Proposed Development and reliance on them by birds either during potentially adverse tide and/or weather conditions, or on a regular basis irrespective of the conditions²⁷.

13A.5.2 Within the Foundry survey area these include:

- Dabholme Gut;

²⁷ The list of key locations may change as baseline data gathering and consultation activities are progressed.

- Bran Sands Lagoon;
- Bran Sands Bay, which regularly supports feeding birds and includes several regularly used roosts; and
- the northern edge of Coatham Dunes and the wider coastline of Coatham Sands, which supports foraging and roosting birds.

13A.5.3 Within the Seal Sands survey area these include:

- The entirety of Seal Sands Bay and its periphery, including the sea wall and the promontory/spit of land at its eastern extent;
- Greenabella Marsh;
- Greatham Creek channel; and
- The Brinefields, channels and saline lagoons south of Greatham Creek channel and east of the A178.

13A.5.4 Within and adjacent to the North Tees Marshes survey area these include:

- All saltmarshes and inundated/wet grassland between The A1185 to the south, the A178 to the East and the railway line to the northwest; and
- The ponds and lagoons at Cowpen Landfill.

13A.5.5 There are numerous locations and areas that are regularly used by feeding and roosting birds that are either relatively distant from the shortlisted sites or are used either irregularly or by relatively small numbers of birds, as set out in previous sections of this report and associated appendices. These may need to be included in any assessment undertaken at a later date, once further development design details and operational parameters (such as emissions to air) are known.

13A.5.6 The terrestrial habitats within the land around Wilton International and most of the industrialised land around Teesport estate, through which various connection corridors might be installed, are of very low risk in terms of the potential for wetland birds associated with the various designated sites across Teesside, and for other species at any time of year by virtue of the relatively high disturbance levels, the presence of active industry, and the limited availability of suitable habitats in these areas.

13A.6 Identification of Ornithological Receptors

13A.6.1 Table 13A-13 draws upon the baseline presented in this report, and relevant records drawn from the NZT project baseline, to identify a list of ornithological receptors with the potential to be impacted either adversely or beneficially by the Proposed Development. The list is based on incomplete baseline and, at the time of writing, an early phase Proposed Development design. Therefore, this list may be revised upwards (i.e., to include more ornithological receptors) or downwards (fewer

receptors) as more baseline data are gathered and the Proposed Development design is refined alongside ongoing consultation with key stakeholders²⁸.

13A.6.2 For the sake of brevity, the table excludes all designated sites from Table 13A-3, which it is assumed at this stage will be taken forward for assessment until or unless it can be demonstrated that the project design has eliminated the possibility of impacts and effects on them.

13A.6.3 All relevant species and species assemblages are included. Species receptors that are qualifying features of a designated site are considered separately from the designations only where there is merit in doing this. An example of this would be breeding avocet, which in addition to being a qualifying feature of Teesmouth and Cleveland Coast SPA is also a rare breeding species in the UK²⁹ and is offered enhanced protection under Schedule 1 of the Wildlife and Countryside Act regardless of the reasons for inclusion as a qualifying feature of the designated site.

²⁸ Including but not necessarily limited to Natural England, RSPB and Local planning Authorities.

²⁹ Avocet are included on the list of native species monitored and reported on by the Rare Breeding Birds Panel (RBBP): <https://rbbp.org.uk/list-of-species-currently-reported-on-by-rbbp/> <https://rbbp.org.uk/list-of-species-currently-reported-on-by-rbbp/>


Table 13A-13: Relevant Ornithological Species Receptors Identified to Date³⁰

RECEPTOR	DETAILS AND APPROX. LOCATION(S)	SOURCE	ECOLOGICAL VALUE AND STATUS	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
Breeding little tern	Breeds at Crimdon Dene and Seaton Carew. Forages over coastal near-shore waters predominantly north of the River Tees and occasionally present at Coatham Sands.	Desk study NZT	National	4.5 km north-west	2.82 km north
Breeding avocet	Several locations across the North Tees Marshes.	Field surveys Desk study	National	4.75 km west	27.4 m west
Breeding little ringed plover	Formerly bred within Teesworks. Has bred at Saltholme RSPB. Regular breeding at locations across the North Tees Marshes and North Gare.	Desk Study NNT	District	211 m east	112 m east
Breeding ringed plover	Seaton Carew and former breeding within Teesworks	Desk Study NNT	District	172 m east	68 m east
Breeding common tern	Saltholme RSPB, Cowpen Marsh, Portrack Marsh, Brinefields Saline Lagoon.	Desk Study NNT	District	4.75 km west	27.4 m west
Breeding lapwing	North Tees Marshes including Saltholme RSPB. Formerly bred within Teesworks and Coatham Dunes.	NNT	Local	174 m east	65 m east

³⁰ Multiple locations and/or multiple years of occurrence are available for some species, in which case the distance is measured to the closest last known or last recorded occupied location. Breeding locations used are those where breeding was confirmed. Approximate distances are provided for receptors represented only by third party records that do not confirm precise locations.



RECEPTOR	DETAILS AND APPROX. LOCATION(S)	SOURCE	ECOLOGICAL VALUE AND STATUS	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
Breeding Cetti's Warbler	Historical breeding confirmed within Saltholme RSPB reserve.	NZT	District	Approx. 6.86 km south-west	Approx. 460 m south
Barn owl	One breeding and roosting location within Teesworks. Pole mounted barn owl boxes at Saltholme RSPB and Greenabella Marsh. Two roosts within the North Tees Marshes survey area. Forages over Coatham Dunes, adjacent grasslands and Coatham Marsh and likely to forage widely across the North Tees Marshes.	Field surveys Desk Study NZT	District	840 m south-east	Overlapping
Breeding marsh harrier	Bred within Saltholme RSPB reserve in 2019.	NZT	National	Approx 6.6 km south-west	Approx. 125 m south
Breeding bittern	Saltholme RSPB.	Desk Study	National	Approx. 6.5 km south-west	Approx. 125 m south
Non-breeding water bird assemblage	Present across entire Teesside area, including at least 57 species (other than qualifying features of designated sites ³¹).	Field surveys, desk study	Regional	Overlapping	Overlapping

³¹ Qualifying features of designated sites are excluded from the wider water bird assemblage features as they are assessed separately as part of the relevant designated site(s).



RECEPTOR	DETAILS AND APPROX. LOCATION(S)	SOURCE	ECOLOGICAL VALUE AND STATUS	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
Breeding bird assemblage (Teesworks)	<p>Teesworks: breeding on open and sparsely vegetated ground, ephemeral/short perennial vegetation, in scrub and on/close to water courses.</p> <p>Nine non-breeding species.</p> <p>Fourteen breeding species including 2 Red List, 8 Amber List and 4 S41 species.</p>	NZT surveys ³²	Local	Immediately east	Overlapping
Breeding bird assemblage (Coatham Dunes)	<p>Predominantly ground- nesting birds breeding among the dunes, dune slacks and ponds.</p> <p>Twenty breeding species including 3 Red List, 6 Amber List and 1 Tees BAP and NERC S41 species. Includes 17 pairs of skylark and a range of dabbling ducks and passerines.</p>	NZT (2018)	District	Immediately north	Immediately north
Breeding bird assemblage (Navigator Terminal)	<p>Birds breeding within open rank grassland and small areas of scrub.</p> <p>Twenty non-breeding species.</p> <p>Five breeding species including 3 Red List species, 1 Amber List species and 4 NERC Section 41 species.</p>	NZT (2022)	Local	1.24 km west	Overlapping

³² Multiple surveys were carried out across different overlapping areas between 2018 and 2022. The summary results provided are from the most recent survey in 2022.



RECEPTOR	DETAILS AND APPROX. LOCATION(S)	SOURCE	ECOLOGICAL VALUE AND STATUS	PROXIMITY TO MAIN SITE	PROXIMITY TO PROPOSED DEVELOPMENT BOUNDARY
Breeding bird assemblage (Saltholme Laydown)	Birds breeding within open grassland and broadleaved woodland adjacent to Saltholme Substation: Eight breeding species recorded (1 Red List).	NZT (2022)	Local	6.2 km south-west	Overlapping
Breeding bird assemblage (Saltholme substation)	Birds breeding within open grassland, broadleaved plantation woodland and scattered scrub. Six non-breeding species. Seventeen breeding species including 2 Red List species, 6 Amber List species and 5 NERC Section 41 species	NZT (2018)	Local	6.27 km south-west	Overlapping
Breeding bird assemblage (Compounds and laydown at Haverton Hill)	Birds nesting on ground, in trees/scrub and in wet ditches. Nine breeding species including 2 Amber List species.	NZT (2020)	Local	7.4 km south-west	Overlapping
Breeding bird assemblage (Haverton Hill Laydown)	Birds nesting in in trees, scrub, and hedgerows on periphery of laydown area. Fifteen non-breeding species. Fifteen breeding species including 6 Amber List species and 2 NERC Section 41 species.	NZT (2022)	Local	7.77 km south-west	Overlapping

13A.7 References

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ANNEX A: SURVEY METADATA

The Foundry

DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
25.01.22	08:05	16:28	LT	1.85m, 14:31	12:39 - 16:50	2, SW	8	1km to Poor	3	None	8(S)	11, 14, 16-18	No land access
26.01.22	08:03	16:30	HT	4.46m, 09:39	07:55 - 11:28	4, SW	6	1km +	5	None	10(DW)	8, 8a, 8b, 11, 14, 16-18	No land access
10.02.22	07:36	17:01	HT	4.04m, 10:39	08:25 - 12:35	4 to 6, SW-WSW	0	3km +	2 to 12	None	1(DW), 6(DW, S), 7(S, B)	None	N/A
17.02.22	07:21	17:15	HT	5.25m, 16:20	14:30 - 17:10	6, W	2 to 3	5km +	7	None	1(W), 2(W), 6(SB)	3-5, 8-19	No land access
22.02.22	07:16	17:28	LT	1.36m, 13:13	11:08 - 13:15	F5/gusting F6 W	3 to 6	5km +	10	Brief rain squall	1(DW), 2(DW), 6(BD), 7(BD)	3-5, 8-19	No land access
23.02.22	07:07	17:28	LT	1.59m, 14:00	11:45 - 14:00	F6/gusting F7 SW	4	5km +	11	None	6(BD), 7(BD)	3-5, 8-19	No land access
09.03.22	06:35	17:56	LT	1.8m, 13:45	11:20 - 16:20	5, S	4	5km +	11 to 13	None	6(BD), 7(BD)	3, 4, 5, 18, 19	No land access
10.03.22	06:33	17:57	HT	4.2m, 08:36	07:00 - 11:00	3, SSW	2	5km +	8 to 14	None	7(S), 8b(S)	3, 4, 5, 18, 19	No land access
29.03.22	06:45	19:34	HT	4.8m, 14:46	12:30 - 16:30	2, NE	8	3km +	9 to 10	None	7(S), 8(S), 8b(S), 15(S)	3, 4, 5, 18, 19	No land access
30.03.22	06:43	19:36	LT	1.3m, 09:38	07:30 - 11:40	3, NE	8	5km +	3 to 4	Sleet	6(BD), 7(BD)	3, 4, 5, 18, 19	No land access



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
21.09.22	06:48	19:07	HT	4.3m, 13:58	11:58 - 15:59	3, SSW	3 to 8	3km +	17 to 20	None	1(DW), 2(DW), 6(S), 7(DW), 8(S), 8a(S), 11(S), 15(S), 15a(S), 16(S)	18	No land access
23.09.22	06:52	19:01	LT	1.38m, 09:19	07:40 - 11:00	1 to 3, NW	0 to 1	3km +	9 to 13	None	2(DW), 6(DW, W), 7(DW, BD)	None	N/A
23.09.22	06:51	19:02	LT	1.38m, 09:19	07:19 - 11.10	1, NNW	0 to 1	3km +	8 to 14	None	8a(S), 11(S), 15(S), 15a(S), 16(S)	16, 18	Restricted view of Sector 16 from edge of Sector 14
11.10.22	07:25	18:17	LT	0.6m, 11:34	09:30 - 13:30	2, SSW	3 to 7	3km +	10 to 14	None	8a(S), 15a(S), 16(S)	16, 18	No land access (including Sector 14 to view Sector 16)
11.10.22	07:25	18:17	LT	0.6m, 11:34	09:30 - 13:30	2, SSW	3 to 7	3km +	10 to 14	None	6(DW, W), 7(DW, W)	None	N/A
19.10.22	07:41	17:59	HT	4.0m, 12:02	10:00 - 12:30	2, ENE	8	3km +	11 to 13	None	1(W), 6(DW), 7(DW), 8a(S), 16(S)	16, 18	No land access (including Sector 14 to view Sector 16)



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
02.11.22	07:08	16:28	HT	4.4m, 10:15	08:15 - 11:15	3 to 4, S	8	3km +	8 to 11	None	7(S), 8a(S)	16, 18	No land access (including Sector 14 to view Sector 16)
02.11.22	07:08	16:28	HT	4.4m, 10:15	08:15 - 11:15	3 to 4, S	8	3km +	8 to 11	None	None	None	N/A
10.11.22	07:24	16:12	LT	1.1m, 10:36	08:15 - 11:45	5, SSW	8	3km +	12 to 15	None	8a(S), 15a(S), 16(S)	18	No land access
10.11.22	07:24	16:12	LT	1.1m, 10:36	08:30 - 11:15	5, S	8	3km +	13	None	None	None	N/A
13.12.22	08:19	15:39	LT	1.9m, 12:24	10:30 - 14:20	1, SW	8	1km	-1	None	6(S), 7(S), 8a(S)	18	No land access
20.12.22	08:24	15:40	HT	4.8m, 12:57	10:50 - 15:00	3 to 5, SW	2 to 3	3km +	8 to 9	None	6(O)	18	No land access
10.01.23	08:23	16:02	LT	1.64m, 12:08	09:30 - 13:30	5, S	8	3km +	5 to 8	Drizzle	6(S), 7(S)	18	No land access
17.01.23	08:17	16:14	HT	4.36m, 11:16	09:15 - 13:15	1, W	0	3km +	-2 to 1	None	None	1, 2, 3a, 6, 18	These sectors were surveyed by another surveyor
17.01.23	08:17	16:14	HT	4.36m, 11:16	09:35 - 13:20	1, W	0	3km +	-2 to 1	None	1(DW), 6(W), 18(SH)	7, 8, 8a, 8b, 9-14,	These sectors were surveyed by



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
												15, 15a, 16, 17	another surveyor
15.02.23	07:26	17:11	HT	4.19m, 10:35	08:50-12:20	2-4, SW	2 to 3	3km+	6 to 9	None	6(SB, DW), 18(S)	7, 8, 8a, 8b, 9-14, 15, 15a, 16, 17	These sectors were surveyed by another surveyor
15.02.23	07:27	17:12	HT	4.19m, 10:35	08:50-12:20	2, S	2	3km+	5 to 10	None	None	1, 2, 3a, 6, 18	These sectors were surveyed by another surveyor
21.02.23	07:14	17:24	LT	0.78m, 10:36	08:36-12:31	2-4, SW	2 to 6	3km+	10 to 12	None	None	8, 8a, 8b 9-15, 15a, 16, 17	These sectors were surveyed by another surveyor
21.02.23	07:14	17:24	LT	0.78m, 10:36	08:36-12:31	2-4, SW	2 to 6	3km+	10 to 12	None	1(W), 2(DW), 6(BD, DW), 7(BD, DW), 18(S)	3, 4, 5, 5a, 8, 8a, 8b, 9-15, 15a, 16, 17, 19	These sectors were surveyed by another surveyor
21.03.23	06:06	18:20	LT	0.88m, 09:36	07:30-11:30	4, SSW	5	3km+	10 to 13	None	7(BD), 8(Aggregate stockpiling), 9(Demolition works), 10(Demolition	N/A	N/A



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
											works), 11(Aggregate stockpiling), 12(GI works), 13(GI works)		
21.03.23	06:06	18:20	LT	0.88m, 09:33	08:15- 11:30	2-4, SW	5 to 8	3km+	10 to 13	None		8, 8a, 8b 9-15, 15a, 16, 17	These sectors were surveyed by another surveyor
28.03.28	06:48	19:33	HT	4.7m, 08:54	07:30- 11:30	42 S	8	3km+	4 to 7	None	7(BD), 8(Aggregate stockpiling), 9(Demolition works), 10(Demolition works), 11(Aggregate stockpiling), 12(GI works), 13(GI works)	N/A	N/A
28.03.28	06:48	19:33	HT	4.7m, 08:54	07:45- 10:50	2, S	8	3km+	4 to 7	None		7, 8, 8a, 8b 9-15, 15a, 16, 17	These sectors were surveyed by another surveyor



Seal Sands

DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
11.02.22	7.35	17:03	HT	4.2m, 11:53	09:50 - 13:50	4, SSW	0	3km +	1 to 6	None	6 (S)	2, 3, 4, 7-11, 13-16, 25	No land access
17.02.22	07:21	17:15	HT	5.25m, 16:20	14:02 - 17:38	4 to 7, Variable	0	3km +	6 to 9	None	4 (S), 8(S), 18 (S), 23c(S)	1, 3, 10-12, 14-16, 23a-23c, 23e-23g, 23, 25	Unsuitable habitat, short daylength, no land access
22.02.22	07:11	17:25	LT	1.36m, 13:13	11:00 - 15:00	5 to 6, W	0 to 4	3km +	7 to 9	None	18(S), 18a(S), 19(S)	1, 3, 10-12, 14-16, 17-21, 25	Unsuitable habitat, no land access
23.02.22	07:07	17:28	LT	1.59m, 14:00	11:30 - 15:30	6 to 7, SSW	4	3km +	9 to 12	None	18(S), 18a(S), 19(S)	1, 3, 10-12, 14-16, 23a-23c, 23e-23g, 23, 25	Unsuitable habitat, no land access
09.03.22	06:34	17:56	LT	1.75m, 13:46	12:35 - 16:30	4 to 5, S	3 to 5/8	3km +	12	None	21(DWL)	1, 3, 10-12, 14-16, 23a-23c, 23e-23g, 23, 25	Unsuitable habitat, no land access
17.03.22	06:14	18:11	HT	5.14m, 15:20	13:15 - 17:20	4 to 5	3	3km +	10 to 11	None	18a(S)	1, 3, 10-12, 14-16, 23a-23c, 23e-23g, 23, 25	Unsuitable habitat, no land access



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
22.03.22	06:01	18:21	LT	1.13m, 12:54	09:55 - 14:05	1 to 2, SE	3	3km +	15	None	21(DWL)	1, 3, 10-12, 14-16, 23a-23c, 23e-23g, 23, 25	Unsuitable habitat, no land access
30.03.22	06:41	19:36	HT	5.16m, 15:33	13:15 - 17:15	3, NE	8	3km +	3 to 4	Frequent sleet/rain showers	18a(S)	1, 3, 10-12, 14-16, 25	Unsuitable habitat, no land access
21.09.22	06:48	19:07	HT	4.26m, 13:58	11:58 - 15:58	2 to 4, S	1 to 8	3km +	16 to 18	None	17a(S), 21(S), G4(S), G5(S)	1, 3, 5-9, 13, 18, 18a, 22-23g, 25	No land access
29.09.22	07:03	18:46	LT	0.80m, 12:42	10:42 - 13:10	3, NNE	5	3km +	14 to 17	None	2(W), 17a(W), 21(W)	1, 3, 5-9, 13, 18, 18a, 22-23g, 25	No land access
12.10.22	07:25	18:16	LT	0.8m, 12:07	10:00 - 12:30	4, SSW	4	3km +	11 to 15	None	17a(W), 21(W)	1, 3, 5-9, 13, 18, 18a, 22-23g, 25	No land access
20.10.22	07:43	17:55	HT	4.2m, 13:19	11:15 - 13:20	2 to 3, E	4 to 7	2 to 3km	12	Light to heavy rain	17a(S), G4(S), G5(S)	1, 3, 5-9, 13, 18, 18a, 22-23g, 25	No land access
03.11.22	07:10	16:26	HT	4.5m, 11:43	09:35-12:25	2-3, S	7 to 4	3km +	9 to 11	None	G5(V/I)	1, 3, 5-9, 13, 18, 18a, 22-23g, 25	No land access
10.11.22	07:24	16:12	LT	1.1m, 10:36	08:40-11:45	4-6, S	8	3km +	14 to 15	Occasional light drizzle	None	1, 3, 5-9, 13, 18, 18a, 22-23g, 25	No land access



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
13.12.22	08:19	15:38	LT	1.9m, 12:24	10:30-14:34	1, E	8	c.100m clearing to c. 1km	-2	None	19(DW/DWL)	1, 3, 5-9, 13, 18, 18a, 22-23g, 25	No land access
14.12.22	08:20	15:38	LT	2.08m, 13:07	11:00-14:10	2, NW	1	3km +	0 to 1	None	None	1, 3, 5-9, 13, 18, 18a, 22-23g, 25	No land access
20.12.22	08:24	15:39	HT	4.76m, 12:57	11:04-14:58	4, S	3	3km+	8	None	22(S), 22d(S), 22e(S)	1, 3, 5-9, 13, 18, 18a, 22-23g, 25	No land access
11.01.23	08:21	16:02	LT	1.64m, 12:08	10:10-13:50	4 to 6, SW	1 to 3	3km+	7	None	17a(S), 24(S)	1, 3, 5-9, 13, 18, 18a, 22-23g, 25	No land access/other sectors covered by Steve Carter on 12.01.23
12.01.23	08:22	16:05	LT	1.75m, 12:45	10:45-14:45	4 to 5, S	8 to 1	3km+	8 to 9	One heavy shower	None	2, 17, 17a, 21, 22, G4, G5, 25	No land access/other sectors covered by Shona Jessiman on 11.01.23
19.01.23	08:14	16:18	HT	4.74m, 13:19	11:10-14:50	2, WSW	0 to 3	3km+	2 to 4	None	4(P - Marsh Harrier), 24(S), G4(S), G5(S)	2, 17, 17a, 21, 22, G4, G5, 25	No land access/other sectors covered by another



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
													surveyor on 19.01.23
19.01.23	08:14	16:18	HT	4.74m, 13:19	11:20-14:30	2, WSW	0 to 3	3km+	2 to 4	None	None	1, 3, 5-9, 13, 18, 18a, 22-23g, 25	No land access/ other sectors covered by another surveyor on 19.01.23
17.02.23	07:21	17:15	HT	4.56m, 13:02	11:02-13:30	4 to 7, W	2 to 4	3km+	10	None	24(S)	1, 3, 5-9, 13, 18, 18a, 22-23g, 25	No land access/ other sectors covered by another surveyor
17.02.23	08:14	16:18	HT	4.74m, 13:19	10:30-13:30	7, W	7	3km+	9 to 11	None	None	2, 17, 17a, 21, 22, G4, G5, 25	No land access/ other sectors covered by another surveyor on 17.02.23
23.02.23	07:08	17:27	LT	0.77m, 11:57	10:05-13:05	1 to 2, W	0	3km+	6 to 7	None	24(S)	1, 3, 5-9, 13, 18, 18a, 22-23g, 25	No land access/ other



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
													sectors covered by another surveyor.
23.02.23	07:08	17:27	LT	0.77m, 11:57	10:05-13:05	1 to 2, W	0	3km+	6 to 7	None	None	1, 2, 10-17, 17a, 21-22f, 24, G4, G5, 25	No land access/ other sectors covered by another surveyor
21.03.23	06:06	18:20	LT	0.88m, 09:36	08:45-09:15	4, SSW	5	3km+	10 to 13	None	None	All except 25	Viewed from The Foundry
23.03.23	06:01	18:24	LT	0.63m, 10:52	08:45-12:45	4, SSW	3	3km+	9 to 12	None	None	2, 17, 17a, 18a, 21, 22, G4, G5, 25	No land access/ other sectors covered by another surveyor on 17.02.23
23.03.23	06:01	18:24	LT	0.63m, 10:52	08:55-12:35	2 to 5, SW	4 to 8	3km+	10 to 12	Light drizzle for first hour		1, 3, 5-9, 13, 18, 18a, 22-23g, 25	No land access/ other sectors covered by another surveyor.



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
28.03.23	06:48	19:33	HT	4.7m, 08:54	08:45-09:15	42 S	8	3km+	4 to 7	None	None	All except 25	Viewed from The Foundry
30.03.23	06:41	19:36	HT	3.91m, 11:06	09:10-12:15	2 to 3, SW	4 to 8	3km+	10 to 13	Light drizzle for first hour		1, 3, 5-9, 13, 18, 18a, 22-23g, 25	No land access/ other sectors covered by another surveyor.



North Tees Marshes

DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
21.09.22	06:48	19:07	HT	4.26m, 13:58	11:58 - 15:58	2 to 4, S	1 to 8	3km +	16 to 18	None	G3(C, P(fox), S), G6(W)	G7-G13, B1-B24, 24	Restricted land access
22.09.22	06:50	19:05	HT	4.56m, 14:47	12:47 - 16:47	3 to 4, S	8	3km +	17	2	B21(S)	G7-G13, B1-B19, 24	Restricted land access
22.09.22	06:50	19:05	HT	4.60m, 14:47	12:47 - 16:47	4, SSW	8	3km +	17	None then drizzle	G7(W), G8(W), G9(W), G10(W), G11(W), G12(W), G13(W), B10(I), B13(I), B15(W), B19(W), B20(W)	G1-G6, G13, B1-B9, B11, B12, B14, B16-B18, B21-B24, 24	Restricted land access
28.09.22	07:01	18:49	LT	0.70m, 12:07	10:07 - 14:07	2, NW	4	3km +	10 to 13	None	G7(W), G8(W), G9(W), G10(W), G11(W), G12(W), G13(W), B10(I), B13(I), B15(W), B19(W), B20(W),	G1-G6, G13, B1-B9, B11, B12, B14, B16-B18, B21-B2424	Restricted land access



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
											B21(AC), B24(AC)		
28.09.22	07:03	18:46	LT	0.78m, 12:42	10:42 - 13:10	4, NE	6	3km	14 to 18	None during survey, heavy rain in hour before.	G3(P (peregrine)), G6(P (buzzard))	G1-G6, G13, B1-B9, B11, B12, B14, B16-B18, B21-B24, 24	Restricted land access
18.10.22	07:39	18:00	HT	4.0m, 10:29	08:29 - 11:39	2, WSW	1 to 7	3km +	6 to 12	None	G2(S), G3(S), G6(S), G7(S), G8(S), G9(S), G10(S), B15(S), B20(S), B21(S, DW), B22(S)	B1-B13, B16-B18, G13, 24	Restricted land access
25.10.22	07:52	17:43	LT	0.7m, 10:29	08:38 - 10:30	2, SW	1 to 2	3km +	11 to 13	None	B21(DW), B24(DW)	B1-B13, B16-B18, G13, 24	Restricted land access
25.10.22	07:52	17:43	LT	0.7m, 10:29	08:29 - 11:47	2, SW	2	3km +	13	None	B15(W)	B1-B13, B16-B18, G13, 24	Restricted land access
26.10.22	07:55	17:41	LT	0.6m, 11:04	09:04 - 11:45	4 to 5, S	2 to 7	3 km +	14 to 17	One heavy shower at the end.	B7(S), B9(S), B10(S), B12(S), B22(S), B23(S)	G1-G13a, B1-B6, B15, B17, B19-B21, B24, 24	Restricted land access



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
26.10.22	07:55	17:41	LT	0.6m, 11:04	09:04 - 11:27	4, SW	2	3km +	13	None	None	G1-G13a, B7-B24, 24	Restricted land access
02.11.22	07:08	16:28	HT	4.4m, 10:15	09:00-12:12	2 to 4, S	6 to 8	3km+	8-10	None	G7(W3, W4), G8(W3), G9(W1), G10(W1)	G1, G4, G5, G11, G12, G13, B1-B14, B16-B19, 24	Visibility restricted from counting location (unknown to surveyor at the time) i.e., G11, G12 & B19
02.11.22	07:08	16:28	HT	4.4m, 10:15	08:15 - 10:50	2 to 4, S	6 to 8	3km +	8 to 10	None	B21(S), B24(DWL)	G1-G13a, B1-B19, B22, B23, 24	These areas covered by other surveyors
03.11.22	07:10	16:26	HT	4.5m, 11:43	09:40 - 12:40	2, S	4	3km +	9 to 12	None	None	G1-G13a, B1-B6, B14, B15, B17-B21, B24, 24	Restricted land access
09.11.22	07:21	16:14	LT	0.9m, 10:04	08:18 - 11:18	2 to 3 NE	5 to 8	3km +	10	None	G7(DW), G8(W)	G1, G10-G12, B1-B14, B16, B18-B24, 24	Covered the following two days
10.11.22	07:24	16:12	LT	1.1m, 10:36	09:06 - 11:30	2 to 5 SW	8	3km +	14	Drizzle throughout	B21(DW)	G1-G9, G13, B1-	These areas covered the day before/after



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
												B19, B22-B23, 24	
11.11.22	07:27	16:10	LT	1.3m, 11:05	09:15 - 11:50	3 to 6 SW	7 to 5	3km +	13-15	None	B9(S), B10(S), B16(S, P(Fox)), B22(S), B23(S)	G1-G13a, B1-B6, B14, B15, B17, B19-B21, B24, 24	Land access/other sectors covered by other surveyors
11.11.22	07:27	16:10	LT	1.3m, 11:05	09:05 - 11:21	4, SW	5	3km +	13	None	None	G1-G13a, B7-B24, 24	Land access/other sectors covered by other surveyors
12.12.22	09:40	12:40	LT	1.7m, 11:43		1, SW	8	3km +	-3 to -1	None	B7(S), B8(S), B10(S)	G1, G3-G13a, B1-B6, B15, B17-B21, B24, 24	Land access/other sectors covered by other surveyors
14.12.22	08:20	15:38	LT	2.08m, 13:07	11:10-15:10	2, NW	2	3km+	-1	None	G7(S)	G1-G6, G13, B1-B16, B18, B21-B24	Access and limited time to complete
14.12.22	08:20	15:38	LT	2.08m, 13:07	11:07-14:50	0 to 2, NW	1 to 3	3km+	-1 to 2	None	G13(S)	B16, B18, B22, B23, B21, B24, 24	Access and limited time to complete



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
15.12.22	08:20	15:38	LT	2.26m, 13:58	12:00-14:45	1 to 3, NW	3 to 8	3km+	3 to 2	Occ light snow/rain showers	G1(S), B1(S), B2(S), B3(S), B5(P (Marsh harrier))	G2-G13a, B7-B24, 24	Access and limited time to complete
19.12.22	08:24	15:39	HT	4.54m, 12:05	10:33-14:10	7, S	8 to 6	3km+	14	Occ light showers	None	G1, G4, G7-G13a, B1-B13, B15-B24	Access and limited time to complete
20.12.22	08:24	15:40	HT	4.8m, 12:57	10:57-14:57	1 to 5, S	4 to 1	3km+	8	None	G13(S), G13a(S), B17(P (Marsh harrier)), B21(S)	G1-G9, B1-B5, B7-B14, B16, B18, B22, B23, 24	Land access/other sectors covered by other surveyors
21.12.22	08:25	15:41	HT	5.0m, 13:45	11:30 - 14:30	3 to 5, SW	1	3km+	7 to 9	None	None	G1, G3-G13, B1-B6, B15, B17-B21, B24, 24	Land access/other sectors covered by other surveyors
21.12.22	08:25	15:41	HT	5.0m, 13:45	11:45 - 14:50	1 to 5, SW	3 to 0	3km+	8	None	G1(S), G7(S), G8(S), B2(S), B4(S), B5(S)	G2-G6, G10-G13a, B7-B24, 24	Land access/other sectors covered by other surveyors
11.01.23	08:21	16:02	LT	1.64m, 12:08	10:05 - 14:00	6, SW	4 to 6	3km+	7	Occ light showers	G8(S), G11(S)	G1-G7, G13, B1-B16, B18, B22, B23, 24	Land access/other sectors covered by other surveyors



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
11.01.23	08:21	16:02	LT	1.64m, 12:08	10.00 - 13.05	6, SW	4 to 6	3km+	7 to 8	Occ light showers	None	G1, G3-G13a, B1-B6, B15, B17-B22, 24	Land access/other sectors covered by other surveyors
12.01.23	08:22	16:05	LT	1.75m, 12:45	11:09 - 13:39	5, SW	5	3km+	9	Intermittent drizzle 11:10 - 11:50; heavy rain 11:50 - 11:57, then dry	B3(DW), B4(DW), B5(DW)	G2-G13, B7-B24, 24	Land access/other sectors covered by other surveyors
12.01.23	08:21	16:04	LT	1.75m, 12:45	10:40-14:50	2 to 5, SW	4 to 8	3km+	8	One brief, heavy shower	G3(AC), G13(S), G13a(S)	G1, G2, G8-G12, B1-B14, B16-B24, 24	Land access/other sectors covered by other surveyors
18.01.23	08:16	16:16	HT	4.51m, 12:20	10:20 - 13:20	2, WNW	1 to 3	3km+	3 to 4	None	None	G1, G3-G13a, B1-B6, B15, B17-B22, 24	Land access/other sectors covered by other surveyors
18.01.23	08:14	16:14	HT	4.51, 12:20	10:25 - 15:10	2-4, WNW	2	3km+	3.5	None	G7(S, JR, OR), G8(S)	G1-G6, G13, B1-B16, B2, 24	Land access/other sectors covered by other surveyors
18.01.23	08:14	16:14	HT	4.51, 12:20	10:20-14:15	2, WNW	1 to 3	3km+	3 to 4	None	G13a(S)	G1, G2, G7-G12, B1-B14,	Land access/other sectors covered



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
												B16-B24, 24	by other surveyors
18.01.23	08:14	16:14	HT	4.51, 12:20	10:32-13:23	4, W	2	3km+	3	None	G1(workers in hi vis), B4(N (Marsh harrier))	G2-G13, B7-B24, 24	Land access/other sectors covered by other surveyors
15.02.23	07:26	17:11	HT	4.19, 10:35	09:40-11:15	2, SW	Three	3km+	7 to 9	None	None	G2-G13a, B7-B24, 24	Land access/other sectors covered by other surveyors
16.02.23	07:24	07:13	HT	4.29, 11:51	09:55-11:30 (B20, B21, B24). 11:55-12:55 (G11, G12, G10, G9, B17, G8 & G7). 13:28-13:40 (B15)	2 to 3, S/SW		>3km+	7 to 8	None	None	G1-G6, G13, G13a, B1-B14, B16, B18, B22, B23, 24	No access/visibility



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
16.02.23	07:24	17:13	HT	4.29, 11:51	10:20-13:50	3 to 3, S/SW	4 to 8	3km+	7 to 9	None	G3(P (2x marsh harrier)), G13a(S)	G1, G2, G8-G12, B1-B24, 24	Land access/other sectors covered by other surveyors
16.02.23	07:25	17:24	HT	4.29, 11:51	10:00-13:40	2, SW	7	3km+	7 to 12	None	None	G1, G3-G13a, B1-B6, B15, B17, B19-B22, 24	Land access/other sectors covered by other surveyors
22.02.23	07:10	17:25	LT	0.72, 11:18	09:30-13:10	2 to 5, NW	8	3km+	8	Drizzle last half hour	G3(P (Marsh harrier)), G6(P (Peregrine)), G13(S)	G1, G2, G7-G12, B1-B14, B16-B24, 24	Land access/other sectors covered by other surveyors
22.02.23	07:10	17:25	LT	0.72, 11:18	09:15-12:45	2 to 5, NW	8	3km+	8	Drizzle last half hour	None	G1, G3-G13a, B1-B6, B15, B17, B19-B22, 4	Land access/other sectors covered by other surveyors
22.02.23	07:10	17:25	LT	0.72, 11:18	09:41-11:05	2 to 5, NW	8	3km+	8	Drizzle last half hour	None	G1-G6, G13, G13a, B1-B16, B18, B22, B23, 24	All other sectors covered by SJ



DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
23.02.23	07:08	17:27	LT	0.77,11:57	10:45-12:30	2, NW	1	3km+	5 to 7	None	None	G2-G13a, B7-B24, 24	Land access/other sectors covered by other surveyors
21.03.23	06:06	18:25	LT	0.88m, 09:33	09:20-11:20	3, SW	7	3km+	12 to 13	None	B4(1 JCB working and 2 men in hi vis)	G2-G13a, B7-B24, 24	Land access/other sectors covered by other surveyors
22.03.23	06:03	18:22	LT	0.70m, 10:14	09:00-12:00	4, SW	3	3km+	9 to 11	None	None	G1, G3-G13a, B1-B6, B15, B17, B19-B21, B24, 24	Land access/other sectors covered by other surveyors
22.03.23	06:03	18:22	LT	0.7m, 10:14	08:30-12:00	4, SW	3	3km+	9 to 12	None			Other sectors covered by SD
22.03.23	06:03	18:22	LT	0.7m, 10:14	08:55 - 12:00	4, SW	3	3km+	9 to 11	None	None	G1-G6, G13, G13a, B1-B14, B16, B18, B22, B23, 24	Land access/other sectors covered by other surveyors
28.03.23	06:48	19:33	HT	4.38m, 08:54	08:30-10:30	1-2, S	8	3km+	5 to 6	Occ light rain	None	G2-G13, B7-B24, 24	Land access/other sectors covered



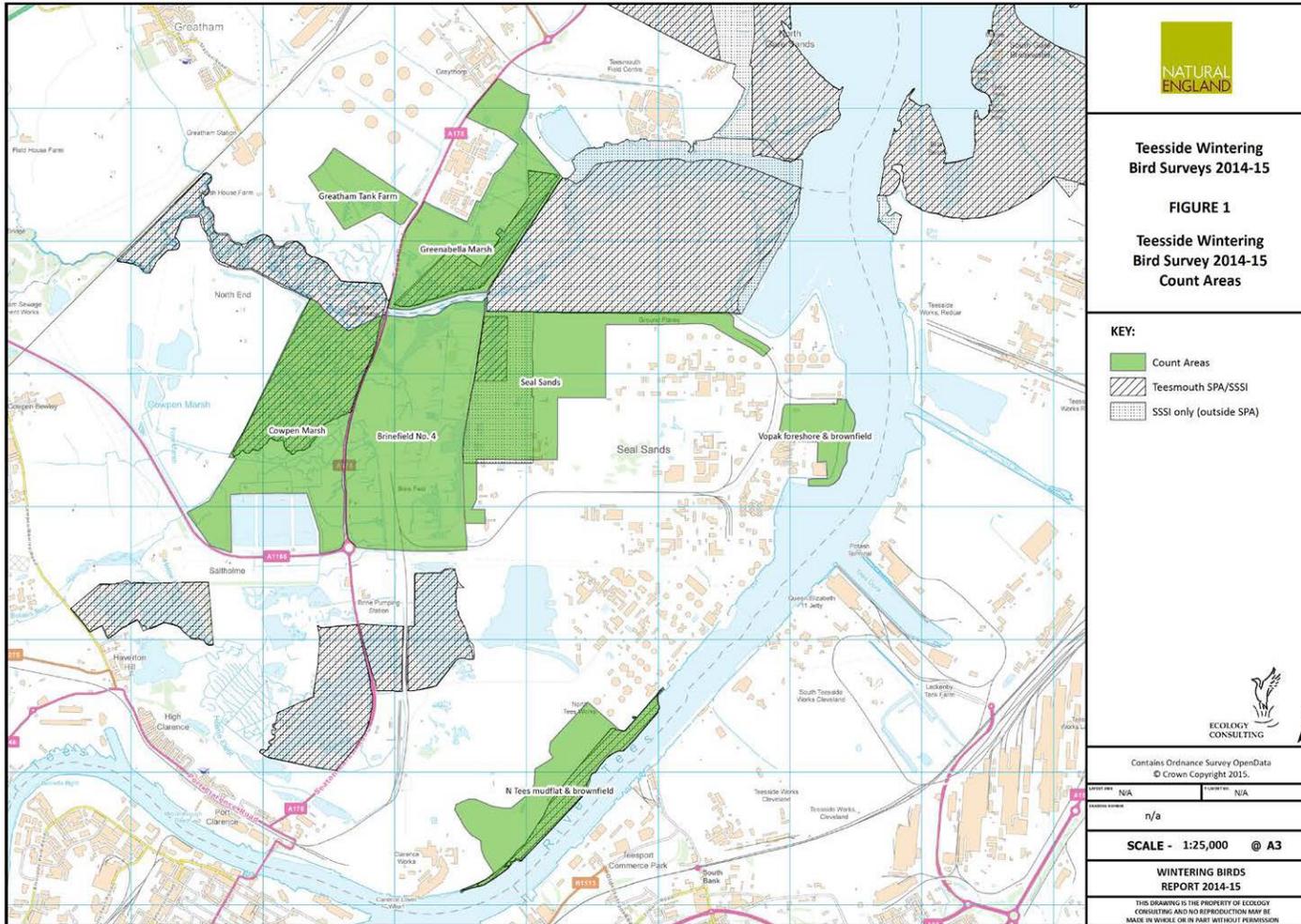
DATE	SUN-RISE	SUNSET	TIDE	TIDE HEIGHT & TIME	SURVEY TIMES	WIND (BEAUFORT, DIRECTION)	CLOUD (OKTAS)	VISIBILITY	TEMP (CELSIUS)	PRECIPITATION	DISTURBANCE (SECTOR & TYPE)	SECTORS NOT SURVEYED	REASON(S) FOR RESTRICTED COVERAGE
													by other surveyors
29.03.23	06:46	19:35	HT	4.09m, 09:49	08:20-11:20	2, S	8	3km+	9 to 12	None	None	G1, G3-G13a, B1-B6, B15, B17, B19-B21, B24, 24	Land access/other sectors covered by other surveyors
29.03.23	06:46	19:35	HT	4.09m, 09:49	08:20-11:45	1-2, S	8	3km+	9 to 11	None			Other sectors covered by SD
29.03.23	06:46	19:35	HT	4.09m, 09:49	08:40-11:35	2, S	8	3km+	10 to 12	Occ light rain	None	G1-G6, G13, G13a, B1-B16, B18, B22, B23, 24	Land access/other sectors covered by other surveyors



ANNEX B: INCA ROOST RECORDS



ANNEX C: AREAS SURVEYED IN SUPPORT OF NATURAL ENGLAND REVIEW OF PROTECTED SITES (SOURCE: PERCIVAL, 2015)



NATURAL ENGLAND

Teesside Wintering Bird Surveys 2014-15

FIGURE 1

Teesside Wintering Bird Survey 2014-15 Count Areas

KEY:

- Count Areas
- Teessmouth SPA/SSSI
- SSSI only (outside SPA)

Contains Ordnance Survey OpenData
 © Crown Copyright 2015.

LAYER NO:	N/A
SYMBOL CODE:	N/A
SCALE -	1:25,000 @ A3
WINTERING BIRDS REPORT 2014-15	
THIS DRAWING IS THE PROPERTY OF ECOLOGY CONSULTING AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION	



ANNEX D: BTO LOW TIDE COUNT DATA



ANNEX E: BTO CORE COUNT DATA



ANNEX F: SUMMARY WETLAND BIRD COUNT DATA FOR THE FOUNDRY SURVEY AREA

High Tide (January 2022 – March 2023 inclusive)

	SECTOR																							
Species ³³	1	2	3	3a	4	5	5a	6	7	8	8a	8b	9	10	11	12	13	14	15	15a	16	17	18	19
Bar-tailed Godwit	0	0	0	0	0	0	0	7	11	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0
Black-headed Gull ³	0	0	0	1	0	0	0	110	200	45	7	0	10	0	0	0	0	7	3	0	72	0	90	0
Black-tailed Godwit	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	16	0	40	0
Black-throated Diver <i>Gavia arctica</i>	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada Goose <i>Branta canadensis</i>	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Common Gull <i>Larus canus</i>	1	2	0	0	0	0	0	14	150	103	3	0	52	0	0	0	0	2	0	0	0	0	0	0
Common Scoter <i>Melanitta nigra</i>	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

³³ Numbered codes against species names indicate qualifying features of designated sites as follows: 1 = Teesmouth and Cleveland Coast SPA; 2 = Teesmouth and Cleveland Coast Ramsar; 3 = Teesmouth and Cleveland Coast SSSI; 4 = Northumbria Coast SPA; 5 = Northumbria Coast Ramsar; 6 = Durham Coast SSSI



	SECTOR																								
Species ³³	1	2	3	3a	4	5	5a	6	7	8	8a	8b	9	10	11	12	13	14	15	15a	16	17	18	19	
Common Tern ¹³	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Cormorant ⁶	0	3	0	0	0	0	0	1	35	0	0	0	0	0	0	0	0	0	0	1	2	0	2	0	0
Cormorant ⁶ / Shag ³⁴	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Curlew	0	0	0	0	0	0	0	23	15	2	8	5	0	2	0	0	0	0	1	0	4	0	1	0	0
Curlew Sandpiper	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dunlin	0	0	0	0	0	0	0	160	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eider <i>Somateria mollissima</i>	5	6	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gadwall ³	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	20	0	0
Great Black Backed Gull	1	1	0	0	0	0	0	0	8	0	0	0	5	0	0	0	0	82	0	0	6	0	0	0	0

³⁴ Birds not identified to species level.



Species ³³	SECTOR																							
	1	2	3	3a	4	5	5a	6	7	8	8a	8b	9	10	11	12	13	14	15	15a	16	17	18	19
Goldeneye <i>Bucephala clangula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0
Golden Plover	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	38	0	0	0
Great Crested Grebe <i>Podiceps cristatus</i>	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grey Heron	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	3	0
Grey Plover	0	0	0	0	0	0	0	2	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Herring Gull ³	10	10	0	0	0	0	0	36	133	18	3	0	28	20	0	0	5	58	36	0	62	0	5	4
Kittiwake ⁶	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
Knot ^{1 2 3 6}	0	0	0	0	0	0	0	10	55	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Lapwing ³	0	0	0	0	0	0	0	0	0	0	56	0	0	0	0	0	0	0	8	0	77	0	8	0
Lesser Black Backed Gull	2	1	0	0	0	0	0	0	3	22	0	0	0	0	1	0	0	2	0	0	3	0	0	0
Little Egret <i>Egretta garzetta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0



Species ³³	SECTOR																							
	1	2	3	3a	4	5	5a	6	7	8	8a	8b	9	10	11	12	13	14	15	15a	16	17	18	19
Little Grebe <i>Tachybaptus ruficollis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0
Mallard	0	0	0	0	0	0	0	2	0	0	4	0	0	0	0	0	0	0	4	0	13	0	16	0
Moorhen <i>Gallinula chloropus</i>	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	6	0
Oystercatcher	3	2	0	0	0	0	0	54	69	1	4	0	0	0	0	0	0	0	0	0	2	0	0	0
Purple Sandpiper ^{3 4 5}	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Razorbill <i>Alca torda</i>	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Red-breasted Merganser	0	0	0	0	0	0	0	16	1	0	2	0	0	0	0	0	0	0	0	0	28	0	6	0
Redshank ^{1 2 3}	0	5	0	13	0	0	0	140	17	0	45	0	0	0	0	0	0	0	0	0	92	0	120	0
Ringed Plover ^{2 3}	2	7	0	0	0	0	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sanderling ^{1 2 3 6}	20	15	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



	SECTOR																								
Species ³³	1	2	3	3a	4	5	5a	6	7	8	8a	8b	9	10	11	12	13	14	15	15a	16	17	18	19	
Sandwich Tern ^{1 2 3}	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shag	0	4	0	0	0	0	0	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shelduck ^{2 3}	3	0	0	0	0	0	0	8	4	0	4	0	0	0	0	0	0	11	10	0	46	0	26	0	0
Snipe <i>Gallinago gallinago</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	2	0	1	0	0
Teal ¹	0	0	0	2	0	0	0	0	8	0	26	0	0	0	0	0	0	0	0	0	0	63	0	400	0
Tufted Duck	0	0	0	0	0	0	0	0	0	0	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turnstone ^{4 5 6}	0	0	0	0	0	0	0	26	11	0	4	0	0	0	0	0	0	0	0	0	0	0	10	0	0
Wigeon ³	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Number of Species	9	13	0	6	0	0	0	18	28	6	15	1	5	2	1	0	1	7	9	3	23	0	17	1	0
Teesmouth and Cleveland Coast SPA Species	1	2	0	2	0	0	0	3	6	0	2	0	0	0	0	0	0	0	0	0	2	0	2	0	0



	SECTOR																							
Species ³³	1	2	3	3a	4	5	5a	6	7	8	8a	8b	9	10	11	12	13	14	15	15a	16	17	18	19
Teemouth and Cleveland Coast Ramsar Species	3	3	0	1	0	0	0	4	6	0	2	0	0	0	0	0	0	1	1	0	2	0	2	0
Teemouth and Cleveland Coast SSSI Species	4	5	0	2	0	0	0	6	10	2	5	0	2	1	0	0	1	3	4	0	6	0	6	1
Northumbria Coast SPA Species	0	0	0	0	0	0	0	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Northumbria Coast Ramsar Species	0	0	0	0	0	0	0	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Durham Coast SSSI species	1	2	0	0	0	0	0	4	4	0	2	0	0	0	0	0	0	0	0	1	2	0	2	0



Low Tide (January 2022 – March 2023 inclusive)

Species ³⁵	SECTOR																							
	1	2	3	3a	4	5	5a	6	7	8	8a	8b	9	10	11	12	13	14	15	15a	16	17	18	19
Bar-tailed Godwit	0	0	0	0	0	0	0	25	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Black-headed Gull ³	50	40	0	1	0	0	0	96	130	0	4	0	0	0	0	0	0	8	0	0	128	0	105	0
Black-tailed Godwit	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
Canada Goose	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Caspian Gull <i>Larus cachinnans</i>	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Common Gull	3	26	0	0	0	0	0	25	320	0	5	0	0	0	0	0	0	1	0	0	6	0	0	0
Common Sandpiper <i>Actitis hypoleucos</i>	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Common Tern ^{1,3}	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

³⁵ Numbered codes against species names indicate qualifying features of designated sites as follows: 1 = Teesmouth and Cleveland Coast SPA; 2 = Teesmouth and Cleveland Coast Ramsar; 3 = Teesmouth and Cleveland Coast SSSI; 4 = Northumbria Coast SPA; 5 = Northumbria Coast Ramsar; 6 = Durham Coast SSSI



	SECTOR																							
Species ³⁵	1	2	3	3a	4	5	5a	6	7	8	8a	8b	9	10	11	12	13	14	15	15a	16	17	18	19
Cormorant ⁶	5	30	0	0	0	0	0	1	130	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0
Curlew	0	3	0	2	0	0	0	17	19	6	2	1	0	0	0	0	0	0	0	0	2	0	6	0
Dunlin	0	0	0	0	0	0	0	92	220	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Eider	0	10	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gadwall ³	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0
GBB Gull	3	2	0	0	0	0	0	1	96	4	0	0	0	0	0	0	0	48	0	0	9	0	0	0
Goldeneye	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0
Great Crested Grebe	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grey Heron	0	0	0	0	0	0	0	1	9	0	1	0	0	0	0	0	0	0	0	5	2	0	0	0
Grey Plover	0	0	0	0	0	0	0	13	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Guillemot <i>Uria aalge</i>	5	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Herring Gull ³	31	65	0	0	0	0	0	56	92	0	3	0	6	38	0	29	1	28	36	0	43	0	5	0
Kittiwake ⁶	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0
Knot ^{1 2 3 6}	0	0	0	0	0	0	0	20	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Species ³⁵	SECTOR																							
	1	2	3	3a	4	5	5a	6	7	8	8a	8b	9	10	11	12	13	14	15	15a	16	17	18	19
Lapwing ³	0	0	0	0	0	0	0	0	86	0	0	0	0	0	0	0	0	14	7	0	83	0	0	0
Lesser Black Backed Gull	0	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	6	0	0	1	0	0	0
Little Egret	0	0	0	0	0	0	0	1	5	0	0	0	0	0	0	0	0	0	0	0	2	0	3	0
Little Grebe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
Little Ringed Plover	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Mallard	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	17	0
Mediterranean Gull <i>Ichthyaetus melanocephalus</i>	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Moorhen	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0
Mute Swan <i>Cygnus olor</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Oystercatcher	22	150	0	0	0	0	0	34	57	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0
Red-breasted Merganser	0	2	0	0	0	0	0	4	24	0	7	0	0	0	0	0	0	0	0	0	23	0	0	0



Species ³⁵	SECTOR																							
	1	2	3	3a	4	5	5a	6	7	8	8a	8b	9	10	11	12	13	14	15	15a	16	17	18	19
Redshank ^{1 2 3}	0	0	0	0	0	0	0	75	36	0	4	0	0	0	0	0	0	0	0	0	5	0	105	0
Red-throated Diver <i>Gavia stellata</i>	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ringed Plover ^{2 3}	0	0	0	0	0	0	0	3	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sanderling ^{1 2 3 6}	5	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sandwich Tern ^{1 2 3}	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shag	1	10	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shelduck ^{2 3}	0	0	0	0	0	0	0	12	10	0	0	0	0	0	0	0	0	0	3	0	29	0	65	0
Snipe	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	2	0	3	0
Teal ¹	0	0	0	0	0	0	0	6	0	0	32	0	0	0	0	0	0	0	2	0	5	0	350	0
Turnstone ^{4 5 6}	4	0	0	0	0	0	0	25	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wigeon ³	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0
Total Number of Species	12	15	0	4	0	0	0	21	25	2	13	2	1	1	0	1	1	6	6	4	20	0	12	0



	SECTOR																							
Species ³⁵	1	2	3	3a	4	5	5a	6	7	8	8a	8b	9	10	11	12	13	14	15	15a	16	17	18	19
Teessmouth and Cleveland Coast SPA Species	1	2	0	0	0	0	0	4	3	0	1	0	0	0	0	0	0	0	1	0	2	0	2	0
Teessmouth and Cleveland Coast Ramsar Species	1	1	0	0	0	0	0	4	3	0	0	0	0	0	0	0	0	0	1	0	2	0	2	0
Teessmouth and Cleveland Coast SSSI Species	3	3	0	1	0	0	0	6	7	0	3	0	0	0	1	1	0	3	3	1	6	0	5	0
Northumbria Coast SPA Species	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Northumbria Coast Ramsar Species	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Durham Coast SSSI	3	2	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0



ANNEX G: SUMMARY WETLAND BIRD COUNT DATA FOR SEAL SANDS SURVEY AREA



High Tide (January 2022 – March 2023 Inclusive) Table 1

Species ³⁶	SECTOR																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	17a	18	18a	19	
Avocet ^{1 3}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bar-tailed Godwit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0
Black-headed Gull ³	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	2	5	0
Black-tailed Godwit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dark Bellied Brent Goose <i>Branta bernicla</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Canada Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Common Gull	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Common Sandpiper	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coot <i>Fulica atra</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cormorant ⁶	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
Curlew	0	2	0	1	0	22	0	56	9	0	0	0	0	0	0	0	0	0	30	108	10	0
Dunlin	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0
Eider	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Gadwall ³	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

³⁶ Numbered codes against species names indicate qualifying features of designated sites as follows: 1 = Teesmouth and Cleveland Coast SPA; 2 = Teesmouth and Cleveland Coast Ramsar; 3 = Teesmouth and Cleveland Coast SSSI; 4 = Northumbria Coast SPA; 5 = Northumbria Coast Ramsar; 6 = Durham Coast SSSI



	SECTOR																				
Species ³⁶	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	17a	18	18a	19
Great Black Backed Gull	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Golden Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Great Crested Grebe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grey Heron	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Greylag Goose <i>Anser</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grey Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Herring Gull ³	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5	29	0
Jack Snipe <i>Lymnocyptes minimus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Kingfisher	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Knot ^{1 2 3 6}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0
Lapwing ³	0	4	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	333	0
Little Egret	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Little Grebe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
Long-tailed Duck <i>Clangula hyemalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mallard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	8	12	6	3
Moorhen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



	SECTOR																				
Species ³⁶	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	17a	18	18a	19
Mute Swan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Oystercatcher	0	0	0	2	0	0	0	8	8	0	0	0	0	0	0	0	9	0	150	154	0
Pintail <i>Anas acuta</i>	0	0	0	2	0	0	0	3	3	0	0	0	0	0	0	0	0	0	7	0	4
Pochard <i>Aythya ferina</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red-breasted Merganser	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17
Redshank ^{1 2 3}	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	202	30
Red-throated Diver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
Shag	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
Shelduck ^{2 3}	0	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	188	217	45
Shoveler ³	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Snipe	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spotted Redshank <i>Tringa erythropus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teal ¹	0	0	0	36	0	0	0	0	0	0	0	0	0	0	0	0	4	2	3	39	0
Tufted Duck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turnstone ^{4 5 6}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
Wigeon ³	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	28	8
Total Number of Species	0	1	0	9	0	1	0	5	1	0	0	0	0	0	0	0	5	4	10	20	13



	SECTOR																				
Species ³⁶	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	17a	18	18a	19
Teessmouth and Cleveland Coast SPA Species	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	3	1
Teessmouth and Cleveland Coast Ramsar Species	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2	3	2
Teessmouth and Cleveland Coast SSSI Species	0	1	0	4	0	1	0	2	0	0	0	0	0	0	0	0	0	1	5	7	4
Northumbria Coast SPA Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Northumbria Coast Ramsar Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Durham Coast SSSI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	2



High Tide (January 2022 – March 2023 Inclusive) Table 2

Species ³⁷	SECTOR																				
	20	21	22	22a	22b	22c	22d	22e	22f	23	23a	23b	23c	23d	23e	23f	23g	24	G4	G5	25
Avocet ^{1 3}	0	0	0	0	2	0	0	2	0	0	0	0	0	4	0	0	0	0	0	7	0
Bar-tailed Godwit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Black-headed Gull ³	14	2	0	0	6	0	0	11	0	0	9	0	0	0	0	0	0	0	42	200	0
Black-tailed Godwit	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0
Dark Bellied Brent Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	4	34	0
Common Gull	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0
Common Sandpiper	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Coot	0	0	5	16	4	2	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0
Cormorant ⁶	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Curlew	12	2	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	60	65	0
Dunlin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
Eider	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gadwall ³	0	7	0	4	0	0	0	10	0	0	0	0	0	3	0	0	0	0	0	16	0
Great Black Backed Gull	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

³⁷ Numbered codes against species names indicate qualifying features of designated sites as follows: 1 = Teesmouth and Cleveland Coast SPA; 2 = Teesmouth and Cleveland Coast Ramsar; 3 = Teesmouth and Cleveland Coast SSSI; 4 = Northumbria Coast SPA; 5 = Northumbria Coast Ramsar; 6 = Durham Coast SSSI



Species ³⁷	SECTOR																				
	20	21	22	22a	22b	22c	22d	22e	22f	23	23a	23b	23c	23d	23e	23f	23g	24	G4	G5	25
Golden Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Great Crested Grebe	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grey Heron	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Greylag Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	17	26	0
Grey Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Herring Gull ³	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
Jack Snipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kingfisher	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Knot ^{1 2 3 6}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lapwing ³	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105	150	0
Little Egret	0	1	0	0	1	1	0	2	0	0	0	0	0	1	0	0	1	0	1	4	0
Little Grebe	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
Long-tailed Duck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Mallard	0	20	0	0	6	2	6	3	4	0	0	0	0	1	0	0	0	1	9	20	0
Moorhen	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Mute Swan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
Oystercatcher	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	3
Pintail	0	2	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pochard	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



	SECTOR																					
Species ³⁷	20	21	22	22a	22b	22c	22d	22e	22f	23	23a	23b	23c	23d	23e	23f	23g	24	G4	G5	25	
Red-breasted Merganser	2	6	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
Redshank ^{1 2 3}	20	6	0	0	0	1	0	1	0	0	0	0	0	6	0	0	0	0	0	0	11	0
Red-throated Diver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shag	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Shelduck ^{2 3}	0	0	0	0	0	1	2	2	0	0	0	0	0	0	0	0	0	0	2	4	0	0
Shoveler ³	0	0	0	1	18	2	3	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Snipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	2	0	0	0
Spotted Redshank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Teal ¹	5	37	0	1	11	1	1	5	0	0	0	0	0	20	0	0	0	0	0	1	74	0
Tufted Duck	0	0	7	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
Turnstone ^{4 5 6}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wigeon ³	0	7	0	0	6	5	12	2	0	0	0	0	0	2	0	0	0	0	0	0	166	0
Total Number of Species	8	14	5	8	10	8	5	11	1	0	1	0	0	10	0	0	2	5	17	27	1	0
Teessmouth and Cleveland Coast SPA Species	2	2	0	1	2	2	1	3	0	0	0	0	0	3	0	0	0	0	1	3	0	0
Teessmouth and Cleveland	1	1	0	0	0	2	1	2	0	0	0	0	0	1	0	0	0	0	1	2	0	0



	SECTOR																				
Species ³⁷	20	21	22	22a	22b	22c	22d	22e	22f	23	23a	23b	23c	23d	23e	23f	23g	24	G4	G5	25
Coast Ramsar Species																					
Teessmouth and Cleveland Coast SSSI Species	3	4	0	1	5	4	3	7	0	0	1	0	0	4	0	0	0	1	3	7	0
Northumbria Coast SPA Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Northumbria Coast Ramsar Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Durham Coast SSSI	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Low Tide (January 2022 – March 2023 Inclusive) Table 1

Species ³⁸	SECTOR																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	17a	18	18a	19
Avocet ^{1 3}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bar-tailed Godwit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	20	22
Black-headed Gull ³	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	10	2	54	1	17
Black-tailed Godwit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	11
Dark Bellied Brent Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Canada Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Common Gull	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	3
Coot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cormorant ⁶	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	51	1	3
Curlew	0	0	0	1	0	14	0	58	3	0	0	0	0	0	0	0	1	2	71	17	27
Dunlin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78	5	284
Gadwall ³	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0
Golden Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Great Crested Grebe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grey Heron	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
Greylag Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grey Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	67

³⁸ Numbered codes against species names indicate qualifying features of designated sites as follows: 1 = Teesmouth and Cleveland Coast SPA; 2 = Teesmouth and Cleveland Coast Ramsar; 3 = Teesmouth and Cleveland Coast SSSI; 4 = Northumbria Coast SPA; 5 = Northumbria Coast Ramsar; 6 = Durham Coast SSSI



	SECTOR																				
Species ³⁸	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	17a	18	18a	19
Guillemot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Herring Gull ³	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	274	78	30
Kingfisher	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Knot ^{1 2 3 6}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	44
Lapwing ³	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	220	4
Lesser Black Backed Gull	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Little Egret	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Little Grebe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Long-tailed Duck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mallard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	8	0	4
Moorhen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mute Swan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oystercatcher	0	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	3	5	198	33	48
Pintail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
Red-breasted Merganser	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	7	1	11
Redshank ^{1 2 3}	0	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	2	6	60	139	141
Ringed Plover ^{2 3}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	8
Shag	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Shelduck ^{2 3}	0	0	0	6	0	0	0	2	0	0	0	0	0	0	0	0	0	0	206	102	45
Shoveler ³	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Snipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



	SECTOR																				
Species ³⁸	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	17a	18	18a	19
Spotted Redshank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	1
Teal ¹	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	2	15	0	5	66
Tufted Duck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turnstone ^{4 5 6}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	6	2
Wigeon ³	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67
Total Number of Species	0	0	0	8	0	1	0	3	1	0	0	0	0	0	0	0	12	8	21	16	25
Teessmouth and Cleveland Coast SPA Species	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	3
Teessmouth and Cleveland Coast Ramsar Species	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	1	3	2	3
Teessmouth and Cleveland Coast SSSI Species	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	4	2	5	5	8
Northumbria Coast SPA Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Northumbria Coast Ramsar Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1



	SECTOR																				
Species ³⁸	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	17a	18	18a	19
Durham Coast SSSI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	2	3



Low Tide (January 2022 – March 2023 Inclusive) Table 2

Species ³⁹	SECTOR																				
	20	21	22	22a	22b	22c	22d	22e	22f	23	23a	23b	23c	23d	23e	23f	23g	24	G4	G5	25
Avocet ^{1 3}	2	0	0	0	0	2	8	0	0	0	0	0	0	0	0	0	0	0	0	14	0
Bar-tailed Godwit	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Black-headed Gull ³	40	9	0	0	0	3	0	0	0	0	0	0	0	2	0	0	15	0	0	9	3
Black-tailed Godwit	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dark Bellied Brent Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0
Common Gull	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coot	0	0	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0
Cormorant ⁶	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Curlew	42	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	8	0
Dunlin	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Gadwall ³	0	0	0	4	0	0	8	12	0	0	0	0	0	0	0	0	0	0	0	14	0
Golden Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Great Crested Grebe	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grey Heron	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0
Greylag Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	21	2	0
Grey Plover	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

³⁹ Numbered codes against species names indicate qualifying features of designated sites as follows: 1 = Teesmouth and Cleveland Coast SPA; 2 = Teesmouth and Cleveland Coast Ramsar; 3 = Teesmouth and Cleveland Coast SSSI; 4 = Northumbria Coast SPA; 5 = Northumbria Coast Ramsar; 6 = Durham Coast SSSI



	SECTOR																				
Species ³⁹	20	21	22	22a	22b	22c	22d	22e	22f	23	23a	23b	23c	23d	23e	23f	23g	24	G4	G5	25
Guillemot	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Herring Gull ³	57	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Kingfisher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Knot ^{1 2 3 6}	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lapwing ³	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	28	0
Lesser Black Backed Gull	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Little Egret	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	1	0
Little Grebe	2	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Long-tailed Duck	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mallard	9	15	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	8	22	0
Moorhen	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0
Mute Swan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0
Oystercatcher	40	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	13
Pintail	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red-breasted Merganser	4	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Redshank ^{1 2 3}	127	5	0	0	1	0	1	1	0	0	0	0	0	6	0	0	0	0	0	7	0
Ringed Plover ^{2 3}	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shag	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shelduck ^{2 3}	12	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2	0	3
Shoveler ³	0	0	0	0	4	26	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0
Snipe	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	6	0	1	1	0



	SECTOR																				
Species ³⁹	20	21	22	22a	22b	22c	22d	22e	22f	23	23a	23b	23c	23d	23e	23f	23g	24	G4	G5	25
Spotted Redshank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Teal ¹	6	85	0	3	5	8	0	11	0	0	0	0	0	6	0	0	0	0	0	31	0
Tufted Duck	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turnstone ^{4 5 6}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wigeon ³	0	12	0	0	2	18	5	3	0	0	0	0	0	4	0	0	0	0	0	76	0
Total Number of Species	22	14	1	6	4	8	7	8	0	1	0	0	0	5	0	0	4	1	10	20	5
Teessmouth and Cleveland Coast SPA Species	4	2	0	1	2	2	2	2	0	0	0	0	0	2	0	0	0	0	0	3	0
Teessmouth and Cleveland Coast Ramsar Species	4	1	0	0	1	0	2	2	0	0	0	0	0	1	0	0	0	0	1	1	1
Teessmouth and Cleveland Coast SSSI Species	7	5	0	1	3	4	5	5	0	0	0	0	0	3	0	0	1	0	2	6	3
Northumbria Coast SPA Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



	SECTOR																				
Species ³⁹	20	21	22	22a	22b	22c	22d	22e	22f	23	23a	23b	23c	23d	23e	23f	23g	24	G4	G5	25
Northumbria Coast Ramsar Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Durham Coast SSSI	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1



ANNEX H: SUMMARY WETLAND BIRD COUNT DATA FOR NORTH TEES MARSHES SURVEY AREA



High Tide (January 2022 – March 2023 Inclusive) Table 1

Species ⁴⁰	SECTOR																	
	G1	G2	G3	G6	G7	G8	G9	G10	G11	G12	G13	G13a	B1	B2	B3	B4	B5	B6
Avocet ^{1 3}	0	1	0	8	1	2	0	0	0	0	0	0	0	0	0	0	0	0
Barnacle Goose <i>Branta leucopsis</i>	0	154	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bar-tailed Godwit	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Black-headed Gull ³	1	58	14	3	0	49	0	0	30	0	2	20	0	0	0	0	0	71
Black-tailed Godwit	0	0	0	3	40	1	0	0	0	0	0	0	0	0	0	0	0	0
Canada Goose	60	147	31	2	0	0	0	0	0	0	113	12	0	7	2	8	2	0
Common Gull	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
Coot	0	0	80	4	0	0	0	0	3	2	6	20	0	0	0	0	0	0
Cormorant ⁶	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Curlew	8	70	80	60	60	3	0	0	0	0	75	0	1	0	0	30	81	0
Dunlin	0	0	0	71	3	21	0	0	0	0	0	0	0	0	0	0	0	0
Egyptian Goose <i>Alopochen aegyptiaca</i>	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gadwall ³	4	4	28	2	1	0	0	0	8	0	3	0	0	0	0	0	0	0
Great Black Backed Gull	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Goldeneye	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

⁴⁰ Numbered codes against species names indicate qualifying features of designated sites as follows: 1 = Teesmouth and Cleveland Coast SPA; 2 = Teesmouth and Cleveland Coast Ramsar; 3 = Teesmouth and Cleveland Coast SSSI; 4 = Northumbria Coast SPA; 5 = Northumbria Coast Ramsar; 6 = Durham Coast SSSI



	SECTOR																	
Species ⁴⁰	G1	G2	G3	G6	G7	G8	G9	G10	G11	G12	G13	G13a	B1	B2	B3	B4	B5	B6
Golden Plover	0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goosander	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Great Crested Grebe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Great Egret <i>Ardea alba</i>	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Sandpiper <i>Tringa ochropus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Grey Heron	1	0	2	0	2	0	0	0	0	0	10	0	2	1	0	0	1	0
Greylag Goose	0	8	42	2	0	0	0	0	0	0	100	1	0	35	99	38	0	0
Grey Plover	0	0	0	4	0	3	0	0	0	0	0	0	0	0	0	0	0	0
Herring Gull ³	3	0	0	1	2	2	0	1	0	0	0	100	0	0	0	0	0	0
Kingfisher	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Lapwing ³	1	200	183	12	30	0	0	10	17	0	38	8	0	0	0	1	57	50
Lesser Black Backed Gull	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Little Egret	0	0	2	7	3	0	0	0	0	0	1	0	0	0	0	0	0	0
Little Grebe	0	0	1	3	3	1	0	0	1	0	0	3	0	0	0	0	0	0
Little Ringed Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mallard	0	1	14	21	30	18	0	2	8	0	10	12	0	2	2	0	23	2
Marsh Harrier <i>Circus aeruginosus</i>	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0



	SECTOR																	
Species ⁴⁰	G1	G2	G3	G6	G7	G8	G9	G10	G11	G12	G13	G13a	B1	B2	B3	B4	B5	B6
Mediterranean Gull	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moorhen	0	0	6	3	0	0	0	0	2	1	0	8	0	0	0	0	0	0
Mute Swan	0	0	2	0	0	1	0	0	0	0	0	2	0	0	0	0	1	0
Oystercatcher	0	0	4	1	1	0	0	0	0	0	2	2	0	0	0	0	0	0
Pink-footed Goose <i>Anser brachyrhynchus</i>	0	0	1	0	0	0	0	0	0	0	1	0	0	3	0	0	0	0
Pintail	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pochard	0	0	15	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Red-breasted Merganser	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Redshank ^{1 2 3}	1	1	2	40	143	85	2	0	0	1	2	0	0	0	0	0	1	1
Red-throated Diver	0	0	0	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ringed Plover ^{2 3}	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ruff ^{1 3}	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scaup	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shag	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shelduck ^{2 3}	0	19	2	10	27	8	0	2	0	0	2	5	0	2	0	0	0	0
Shoveler ³	0	27	0	0	20	0	0	0	0	0	6	2	0	0	0	0	0	0
Snipe	0	0	0	57	2	0	0	0	0	1	1	1	12	16	1	0	0	1



	SECTOR																	
Species ⁴⁰	G1	G2	G3	G6	G7	G8	G9	G10	G11	G12	G13	G13a	B1	B2	B3	B4	B5	B6
Spotted Redshank	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teal ¹	30	41	12	106	225	80	0	0	0	1	32	14	0	70	6	50	40	3
Tufted Duck	0	0	0	0	0	0	0	0	8	0	0	10	0	0	0	0	0	0
Turnstone ^{4 5 6}	0	0	7	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
White-fronted Goose <i>Anser albifrons</i>	0	0	1	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0
Whooper Swan <i>Cygnus</i>	0	1	0	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wigeon ³	70	222	110	188	605	50	0	0	0	0	30	0	0	20	0	0	75	0
Woodcock <i>Scolopax rusticola</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Total Number of Species	10	20	27	29	21	16	1	4	9	5	19	18	4	10	5	5	10	6
Teessmouth and Cleveland Coast SPA Species	2	2	2	4	3	3	1	0	0	2	2	1	0	1	1	1	2	2
Teessmouth and Cleveland Coast Ramsar Species	1	2	2	3	2	2	1	1	0	1	2	1	0	1	0	0	1	1
Teessmouth and Cleveland Coast SSSI Species	6	8	6	10	8	6	1	3	3	1	7	5	1	2	0	1	3	3



	SECTOR																	
Species ⁴⁰	G1	G2	G3	G6	G7	G8	G9	G10	G11	G12	G13	G13a	B1	B2	B3	B4	B5	B6
Northumbria Coast SPA Species	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Northumbria Coast Ramsar Species	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Durham Coast SSSI	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0



High Tide (January 2022 – March 2023 Inclusive) Table 2

Species ⁴¹	SECTOR																		
	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	B22	B23	B24	B25
Avocet ^{1 3}	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Barnacle Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bar-tailed Godwit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Black-headed Gull ³	1	0	0	31	2	61	0	36	46	0	0	2	0	20	21	0	0	100	0
Black-tailed Godwit	0	0	0	0	0	0	0	0	63	0	0	0	0	0	0	0	0	0	0
Canada Goose	0	1	0	44	0	0	0	0	0	0	0	0	0	0	2	0	0	45	0
Common Gull	0	0	0	7	0	87	0	0	4	0	0	0	0	0	0	0	0	2	0
Coot	5	12	0	27	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cormorant ⁶	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0
Curlew	2	0	0	0	0	1	0	82	65	125	1	3	0	0	0	0	2	4	0
Dunlin	0	0	0	0	0	4	0	0	58	0	0	0	0	0	0	0	0	0	0
Egyptian Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gadwall ³	6	7	0	8	4	0	0	0	0	3	0	0	0	0	0	0	0	0	0
Great Black Backed Gull	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goldeneye	3	3	2	7	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Golden Plover	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0
Goosander	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

⁴¹ Numbered codes against species names indicate qualifying features of designated sites as follows: 1 = Teesmouth and Cleveland Coast SPA; 2 = Teesmouth and Cleveland Coast Ramsar; 3 = Teesmouth and Cleveland Coast SSSI; 4 = Northumbria Coast SPA; 5 = Northumbria Coast Ramsar; 6 = Durham Coast SSSI



	SECTOR																		
Species ⁴¹	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	B22	B23	B24	B25
Great Crested Grebe	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Great Egret	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Sandpiper	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grey Heron	1	1	0	0	1	0	0	0	0	1	0	0	0	0	1	0	7	0	0
Greylag Goose	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0
Grey Plover	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
Herring Gull ³	0	0	0	0	0	1	0	0	47	0	0	0	0	2	0	0	0	0	0
Kingfisher	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0
Lapwing ³	0	0	0	0	2	2	2	118	221	0	3	28	0	0	0	0	0	117	0
Lesser Black Backed Gull	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	2	0
Little Egret	0	0	0	0	1	0	0	0	2	1	0	0	0	1	4	0	2	0	0
Little Grebe	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Little Ringed Plover	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mallard	20	2	2	10	37	0	0	0	25	12	0	0	0	0	4	6	22	0	0
Marsh Harrier	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mediterranean Gull	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Moorhen	0	0	2	0	2	0	0	0	1	0	0	0	0	0	2	0	1	0	0
Mute Swan	0	0	0	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Oystercatcher	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
Pink-footed Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0



	SECTOR																		
Species ⁴¹	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	B22	B23	B24	B25
Pintail	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pochard	17	4	0	5	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red-breasted Merganser	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Redshank ^{1 2 3}	0	0	0	2	1	3	0	0	48	5	3	1	0	0	1	2	8	0	0
Red-throated Diver	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Ringed Plover ^{2 3}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ruff ^{1 3} <i>Calidris pugnax</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scaup <i>Aythya marila</i>	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shag	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Shelduck ^{2 3}	0	0	0	12	4	0	0	0	6	35	7	0	0	0	0	6	6	0	0
Shoveler ³	0	0	0	26	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0
Snipe	0	1	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Spotted Redshank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teal ¹	48	1	0	34	5	0	0	0	29	9	30	0	0	0	10	10	37	0	0
Tufted Duck	7	6	2	4	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turnstone ^{4 5 6}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Whooper Swan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wigeon ³	59	4	2	32	46	26	0	0	100	36	150	0	0	0	0	0	97	0	0
Woodcock	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0



	SECTOR																		
Species ⁴¹	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	B22	B23	B24	B25
Total Number of Species	12	13	7	17	19	11	3	4	25	9	6	4	0	4	10	4	10	8	0
Teessmouth and Cleveland Coast SPA Species	1	1	0	3	2	1	0	0	3	2	2	1	0	0	2	2	2	0	0
Teessmouth and Cleveland Coast Ramsar Species	0	0	0	2	2	1	0	0	2	2	2	1	0	0	1	2	2	0	0
Teessmouth and Cleveland Coast SSSI Species	3	2	1	6	6	5	1	2	7	4	4	3	0	2	2	2	3	2	0
Northumbria Coast SPA Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Northumbria Coast Ramsar Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Durham Coast SSSI	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0



Low Tide (January 2022 – March 2023 Inclusive) Table 1

Species ⁴²	SECTOR																	
	G1	G2	G3	G6	G7	G8	G9	G10	G11	G12	G13	G13a	B1	B2	B3	B4	B5	B6
Avocet ^{1 3}	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Barnacle Goose	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bar-tailed Godwit	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Black-headed Gull ³	1	0	0	7	1	1	0	0	17	0	6	10	0	0	0	0	0	0
Black-tailed Godwit	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dark Bellied Brent Goose	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada Goose	100	10	32	2	0	0	0	0	0	0	120	48	0	0	20	9	90	0
Common Gull	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Common Sandpiper	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coot	0	0	90	1	0	0	0	0	4	1	3	20	0	0	0	0	0	0
Cormorant ⁶	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cormorant ⁶ / Shag ⁴³	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Curlew	8	19	150	38	82	5	0	0	0	0	55	0	4	0	30	40	90	1
Dunlin	0	0	0	18	11	3	0	0	0	0	0	0	0	0	0	0	0	0

⁴² Numbered codes against species names indicate qualifying features of designated sites as follows: 1 = Teesmouth and Cleveland Coast SPA; 2 = Teesmouth and Cleveland Coast Ramsar; 3 = Teesmouth and Cleveland Coast SSSI; 4 = Northumbria Coast SPA; 5 = Northumbria Coast Ramsar; 6 = Durham Coast SSSI

⁴³ Not identified to species level



Species ⁴²	SECTOR																	
	G1	G2	G3	G6	G7	G8	G9	G10	G11	G12	G13	G13a	B1	B2	B3	B4	B5	B6
Egyptian Goose	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gadwall ³	0	0	26	0	0	0	0	0	7	0	0	0	2	0	0	0	0	0
Great Black backed gull	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Goldeneye	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Golden Plover	0	3	0	210	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Great Crested Grebe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Sandpiper	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Greenshank <i>Tringa nebularia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grey Heron	0	0	1	0	0	0	0	0	0	0	13	1	1	0	1	0	2	0
Greylag Goose	2	0	28	2	0	0	0	0	0	0	100	1	0	2	35	0	20	0
Grey Plover	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Herring Gull ³	1	0	0	3	1	2	0	0	0	0	2	100	0	0	0	0	0	0
Kingfisher	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Knot ^{1 2 3 6}	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lapwing ³	2	35	65	250	32	17	0	1	7	0	60	6	12	0	6	0	20	0
Little Egret	0	0	3	5	1	0	0	0	0	0	1	0	0	0	0	0	0	0
Little Grebe	0	0	2	4	0	0	0	0	2	0	0	3	0	0	0	0	0	0
Long-tailed Duck	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Mallard	4	0	15	12	0	4	0	0	14	0	8	70	8	0	7	0	11	8



Species ⁴²	SECTOR																	
	G1	G2	G3	G6	G7	G8	G9	G10	G11	G12	G13	G13a	B1	B2	B3	B4	B5	B6
Marsh Harrier	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mediterranean Gull	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Moorhen	0	0	3	0	0	0	0	0	1	0	0	10	0	0	0	0	0	0
Mute Swan	0	0	2	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0
Oystercatcher	0	0	2	5	0	0	0	0	0	0	2	2	0	0	0	0	0	0
Pintail	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pochard	0	0	14	0	0	0	0	0	4	0	0	2	0	0	0	0	0	0
Red-breasted Merganser	0	0	0	11	18	8	0	0	0	0	0	0	0	0	0	0	0	0
Redshank ^{1 2 3}	0	21	0	47	76	40	0	0	0	0	0	0	0	0	0	0	3	4
Scaup	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shelduck ^{2 3}	0	4	10	10	16	13	0	0	0	0	6	0	0	0	0	0	0	0
Shoveler ³	0	28	0	0	0	0	0	0	7	0	4	5	0	0	0	0	0	0
Snipe	4	0	3	1	0	0	0	0	0	0	1	1	10	10	5	0	5	0
Spoonbill <i>Platalea alba</i>	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Spotted Redshank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teal ¹	2	26	20	220	42	40	0	0	0	0	8	10	6	0	5	0	21	33
Tufted Duck	0	0	2	0	0	0	0	0	5	0	0	26	0	0	0	0	0	0
Turnstone ^{4 5 6}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Rail <i>Rallus aquaticus</i>	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0



	SECTOR																	
Species ⁴²	G1	G2	G3	G6	G7	G8	G9	G10	G11	G12	G13	G13a	B1	B2	B3	B4	B5	B6
White-fronted Goose	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
Whooper Swan	0	0	0	60	11	0	0	0	0	0	0	0	0	0	0	0	0	0
Wigeon ³	62	526	200	70	21	0	0	0	0	0	42	0	0	0	0	0	64	70
Total Number of Species	10	10	24	28	14	12	0	1	13	1	17	17	7	2	10	2	11	5
Teessmouth and Cleveland Coast SPA Species	1	2	1	4	2	2	0	0	0	0	0	0	0	0	0	0	1	1
Teessmouth and Cleveland Coast Ramsar Species	0	2	1	3	2	0	0	0	0	1	0	0	0	0	0	0	1	1
Teessmouth and Cleveland Coast SSSI Species	4	5	4	8	6	5	0	1	4	0	5	4	2	0	1	0	2	1
Northumbria Coast SPA Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Northumbria Coast Ramsar Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



	SECTOR																	
Species ⁴²	G1	G2	G3	G6	G7	G8	G9	G10	G11	G12	G13	G13a	B1	B2	B3	B4	B5	B6
Durham Coast SSSI	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Low Tide (January 2022 – March 2023 Inclusive) Table 2

Species ⁴⁴	SECTOR																		
	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	B22	B23	B24	B25
Avocet ^{1 3}	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
Barnacle Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bar-tailed Godwit	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Black-headed Gull ³	2	0	0	14	1	22	0	0	17	0	0	2	0	23	0	1	0	30	0
Black-tailed Godwit	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0
Dark Bellied Brent Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada Goose	0	0	1	3	0	0	0	250	0	0	0	0	0	0	0	0	0	120	0
Common Gull	0	0	0	0	0	24	0	0	0	1	0	0	0	0	0	0	0	0	0
Common Sandpiper	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0
Coot	16	6	0	28	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cormorant ⁶	2	1	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Cormorant ⁶ / Shag	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
Curlew	0	0	0	1	0	0	0	0	72	1	0	10	0	0	0	1	2	3	0
Dunlin	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0
Egyptian Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gadwall ³	8	3	0	15	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0

⁴⁴ Numbered codes against species names indicate qualifying features of designated sites as follows: 1 = Teesmouth and Cleveland Coast SPA; 2 = Teesmouth and Cleveland Coast Ramsar; 3 = Teesmouth and Cleveland Coast SSSI; 4 = Northumbria Coast SPA; 5 = Northumbria Coast Ramsar; 6 = Durham Coast SSSI



	SECTOR																		
Species ⁴⁴	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	B22	B23	B24	B25
Great Black Backed Gull	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goldeneye	2	3	2	4	4	7	0	0	0	0	0	0	0	0	0	0	0	0	0
Golden Plover	0	0	0	0	0	0	0	0	500	0	0	0	0	0	0	0	0	0	0
Great Crested Grebe	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Sandpiper	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Greenshank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Grey Heron	1	0	0	0	1	0	0	0	2	1	0	4	0	0	1	1	5	0	0
Greylag Goose	0	1	1	0	1	0	0	0	0	0	0	0	0	0	120	0	0	180	0
Grey Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Herring Gull ³	0	0	0	3	0	2	0	0	25	0	0	0	0	0	0	0	0	0	0
Kingfisher	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Knot ^{1 2 3 6}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lapwing ³	2	0	0	0	0	43	0	0	255	0	0	0	0	6	0	0	0	0	0
Little Egret	0	0	0	0	0	0	0	0	9	1	0	0	0	0	3	1	1	0	0
Little Grebe	1	2	0	1	1	0	0	0	5	0	0	0	0	0	0	0	0	0	0
Long-tailed Duck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
Mallard	20	4	1	5	68	4	0	0	14	7	0	0	0	0	2	10	4	0	0
Marsh Harrier	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mediterranean Gull	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moorhen	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0



	SECTOR																		
Species ⁴⁴	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	B22	B23	B24	B25
Mute Swan	0	4	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oystercatcher	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0
Pintail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pochard	22	10	0	2	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red-breasted Merganser	0	0	0	0	1	0	0	0	17	0	0	0	0	0	1	0	0	0	0
Redshank ^{1 2 3}	0	1	0	1	1	2	0	0	210	3	1	0	0	0	0	12	4	0	0
Scaup	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shelduck ^{2 3}	0	0	0	1	0	2	0	0	4	10	3	0	0	0	0	0	2	0	0
Shoveler ³	0	0	0	35	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0
Snipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spoonbill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spotted Redshank	0	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	0	0	0
Teal ¹	40	4	0	40	32	4	0	0	420	200	0	0	0	0	0	0	25	0	0
Tufted Duck	4	6	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turnstone ^{4 5 6}	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Water Rail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Whooper Swan	0	0	0	0	1	0	0	0	74	0	0	0	0	0	0	0	0	0	0
Wigeon ³	100	0	0	45	5	0	0	0	1000	0	0	0	0	0	0	0	28	0	0



	SECTOR																		
Species ⁴⁴	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	B22	B23	B24	B25
Total Number of Species	13	13	6	19	15	10	0	1	25	8	2	3	0	2	7	6	10	5	0
Teesmouth and Cleveland Coast SPA Species	1	2	0	2	2	2	0	0	3	2	1	0	0	0	0	1	2	0	0
Teesmouth and Cleveland Coast Ramsar Species	0	1	0	2	1	2	0	0	2	2	2	0	0	0	0	1	2	0	0
Teesmouth and Cleveland Coast SSSI Species	4	2	0	7	4	5	0	0	8	2	2	1	0	2	0	2	3	1	0
Northumbria Coast SPA Species	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Northumbria Coast Ramsar Species	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Durham Coast SSSI	1	1	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	0