

Report to Inform Habitats Regulation Assessment

Foreshore, South Shields

April 2026

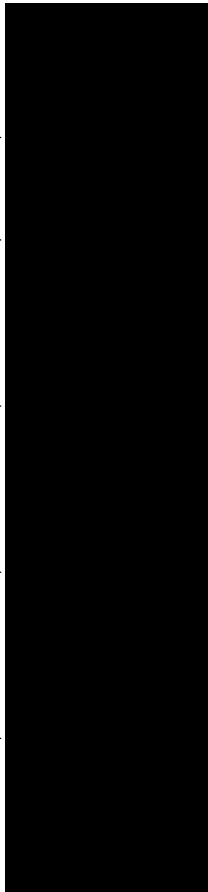


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Quality Control

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1.0 EXECUTIVE SUMMARY

Durham Wildlife Services were commissioned by South Tyneside Council in August 2023 to undertake an assessment of the implications of a coastal development comprising of beach huts and retail pods, on European Sites. Due to the proximity to several coastal designated areas, the development was considered to have potential for impacting upon the following European Sites and their qualifying features and as such, has been explored further:

1. Northumbria Coast (Ramsar, SPA)
2. Durham Coast (SAC)

The area of interest under this report is entirely outside any of the European sites; therefore, no direct impacts in terms of habitat loss and disturbance are anticipated. However, qualifying bird species have been observed along the adjacent coast, indicating that the site has a potential functional link to these European sites.

After considering the data and records, the site location, type, size and scale of the project and the qualifying features of the Northumbria Coast Ramsar and SPA and Durham Coast SAC, the following potential impacts have been identified and discussed in relation to the European Sites and their reasons for designation: On the basis of the above, it is considered that the impacts include the following:

- Disturbance of overwintering SPA/Ramsar species by increased noise levels during the construction phase:
 - Disturbance of roosting SPA/Ramsar species.
 - Disturbance of foraging SPA/Ramsar species.
- Pollution of water, and therefore, habitats and food sources during the construction phase.
- Air pollution during the construction phase.
- Disturbance of foraging coastal birds by increased visitor pressures
- Damage to qualifying habitats.
- Disturbance of birds via light pollution

It has been assessed that there will be no direct Adverse Effect on Integrity (AEOI) on the SPA, SAC or Ramsar sites, given the distance from the proposed work area. Therefore, the impacts from the proposed works will relate to qualifying/notable species which utilise functionally linked lands at this coastal site. Use of a CEMP

and completion of the main and noisiest elements of the works prior to the peak wintering bird period (November-February) would reduce any impacts to non-significant level.

Full mitigation measures have been detailed within Table 7 of this report. As a result of the avoidance and mitigation measures to be implemented, the competent authority would be able to conclude no AEOL on the designated sites.

2.0 INTRODUCTION

2.1 Background

Durham Wildlife Services were commissioned by South Tyneside Council in August 2023 to undertake an assessment of the implications of a coastal development comprising of beach huts and retail pods, on European Sites. The approximate National Grid Reference for the centre of the site is NZ 37924 66969.

Due to the proximity to several coastal designated areas, the development was considered to have potential for impacting upon the following European Sites and their qualifying features and as such, has been explored further:

3. Northumbria Coast (Ramsar, SPA)
4. Durham Coast (SAC)

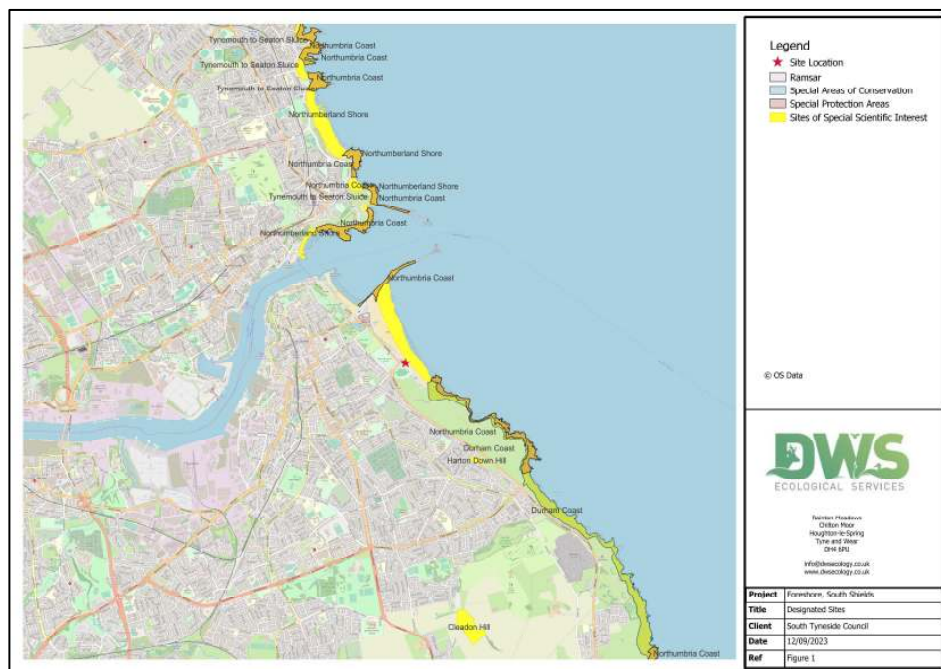


Figure 1: Location of proposed work area (red star) in relation to European designated sites.

2.2 Site Description

The site is located within the Foreshore in South Shields. It lies immediately west of the promenade and beach, with restaurants to the northwest and a surf shop to the southeast. A narrow bank of sand dunes connects the site with a large carpark to the southeast. Additional carparks, restaurants and a pleasure park lie further to

the northwest. Recreation grounds lie to the east. The site itself is the location of a former café, demolished over two decades ago. A large component of the site is hard standing, used by some as an informal car park. The edges of the site have been covered in wind blown sand which is now mostly vegetated. The western side appears to be more established vegetated sand dunes.

2.3 Proposals

The proposals are to erect a series of beach huts and retail pods, with associated facilities and landscaping.

2.4 Assessment Objectives

The purpose of a Habitat Regulations Assessment is to assess the potential impact of the proposed development on nearby statutory designated sites, particularly Ramsar, Special Areas of Conservation (SAC) and Special Protection Areas (SPA), referred to as 'European Sites'. In this instance, based on the proposals and their related impacts as well as proximity of the designated sites to work area, the Northumbria Coast Ramsar/SPA and the Durham Coast SAC have been considered. The Durham Coast SSSI overlaps with these designations and lies within 50 metres of the site and has therefore been included in the assessment.

3.0 METHODOLOGY

3.1 Desk Based Study

An area search was conducted using the Multi Agency Geographic Information for the Countryside (MAGIC) website to ascertain the location of European Sites within the vicinity of the development. Environmental Records Information Centre for the Northeast of England (ERIC) was contacted for records of relevant notable species within 2km of the site. The ARCUS Sunderland and South Tyneside Non-Breeding Bird Report (2015), and the BSG Sunderland and South Tyneside Coastal Sites Non-breeding Bird Report (2016) were also reviewed. A review of species habitat requirements etc. was also be undertaken.

3.2 Habitat Regulations Assessment Process

The objective is to identify European Sites that are present within suspected influencing distance from the site, outline their conservation value and discuss potential impacts that may be imposed (e.g. indirect impacts such as an increase in dog walkers, or direct impacts such as increased light pollution). Table 1 below highlights the HRA process.

Table 1: Four Stage HRA Process

Stage	Task
Stage 1: Screening	Identify likely impacts of the project upon a European Site, either alone or in combination with other projects, and consider whether these are likely to be significant.
Stage 2: Appropriate Assessment	The consideration of the impacts on the integrity of the European site, either alone or in combination with other plans and projects, with regard to the site's structure and function and its conservation objectives. Where there are adverse impacts, an assessment of mitigation options is carried out to determine adverse effect on the integrity of the site. If these mitigation option cannot avoid impacts, then development consent if stages 3 and 4 are followed.
Stage 3: Assessment of Alternative Solutions	Examine alternative ways of achieving objectives of the project to establish whether there are solutions that would avoid or have a lesser effect on European Sites.
Stage 4: Imperative Reasons of Over-riding Public Interest (IROPI)	Where no alternative solutions exist and adverse impacts remain, suggest potential compensatory measures to protect the integrity of the European Site.

Reference: **IPC (2011)** Habitat Regulations Assessment. Advice Note 10

Where effects are unlikely, a 'finding of no significant effect report' will be prepared.

Where effects are judged likely, or lack of information to prove otherwise, proceed

to Stage 2. Any project will be subject to an appropriate assessment if it can't be proven beyond significant doubt that there is no significant effect on a European site either alone or in combination with other projects.

This report has been prepared by Karen Devenney MCIEEM, Principal Ecologist, whom has extensive previous experience of undertaking such assessments. As mitigation measures have been proposed, a report to inform an appropriate assessment has been completed.

3.3 Cumulative/ In-combination Effects

The proposals include beach huts, retail pods and associated facilities and infrastructure. Where appropriate, an assessment of cumulative and in-combination effects will take place where it is possible that the development itself could contribute significantly to the potential impacts identified. Planning applications in the following district wards were selected and searched: Beacon & Bents, and Horsely Hill, in order to make an assessment of cumulative and in-combination effects of other developments which may have potential to impact on the European designated coastal sites.

3.4 Legislation

The Conservation of Habitats and Species Regulations 2017 (as amended)

The UK is bound by the terms of the EC Birds and Habitats Directives and the Ramsar Convention. The Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations') provide for the protection of 'Natura 2000 sites', which are SAC's and candidate SAC's designated pursuant to the Habitats Directive (Council Directive 92/43/EEC), and SPAs classified under the Birds Directive (Council Directive 2009/147/EC). As a matter of policy, the UK Government has chosen to also apply the HRA process to Ramsar sites and potential SPAs; together Natura 2000 sites, Ramsar sites and potential SPAs are known as 'European Sites'. Regulation 61 of the Habitats Regulations restricts the granting of planning permission for development which is likely to significantly affect a European site, and which is not directly connected with or necessary to the management of the site, by requiring that an 'appropriate assessment' is first carried out of the implications of the development for the site's conservation objectives.

4.0 ASSESSMENT RESULTS

4.1 European Sites Search

The results obtained from the MAGIC search revealed three European Sites within potential influencing distance of the proposed work area.

1. Northumbria Coast (Ramsar, SPA) (UK9006131) located approximately 450 metres away at its closest point.
2. Durham Coast SAC (UK 0030140) located 450 metres away at its closest point.

These designations are also present to the north and south of the proposed work area and overlap with the Durham Coast SSSI designation which lies just 50 metres from the site.

No other European Sites have been recorded within 8km of the proposed work area. A total of 8 SSSI designations are located within the 8km search radius. Excluding the Durham Coast SSSI, based on the proposed development and the distance between the remaining 7 SSSI's and the proposed work area, no significant impact is likely to occur.

The focus on potential impacts is on the coastal designated sites, due to the proximity of the proposed work area to the coast and the coastal birds this area has potential to support, and/or disturb. This is particularly in respect to Little Tern *Sternula albifrons*, Purple Sandpiper *Calidris maritima*, and Turnstone *Arenaria interpres* with the SPA designated for supporting populations of European importance, and the Ramsar for the same species as above, with species/populations occurring at levels of international importance. Additionally, noteworthy fauna within the Ramsar designation includes Sanderling *Calidris alba*, Golden Plover *Pluvialis apricaria*, Great Cormorant *Phalacrocorax carbo*, Arctic Tern *Sterna paradisaea*, Common Eider *Somateria mollissima* and Black Legged Kittiwake *Rissa tridactyla*.

4.2 ERIC Consultation

Biological records data was requested from ERIC North East within 2km of the site. The relevant protected and notable species are summarised below, including primary reasons for designations and noteworthy fauna.

Common Name	Scientific Name	No. records	Highest count	Date
Turnstone	<i>Arenaria interpres</i>	130	80	2006-2021
Sanderling	<i>Calidris alba</i>	159	120	2006-2017
Purple Sandpiper	<i>Calidris maritima</i>	105	64	2006-2020
Great Cormorant	<i>Phalacrocorax carbo</i>	0	-	-
Golden Plover	<i>Pluvialis apricaria</i>	0	-	-
Black Legged Kittiwake	<i>Rissa tridactyla</i>	0	-	-
Eider	<i>Somateria mollissima</i>	130	62	2006-2022
Arctic Tern	<i>Sterna paradisaea</i>	63	40	2006-2017
Little Tern	<i>Sternula albifrons</i>	22	4	2006-2011

Table 2: Summary of biological records within 2km

4.3 Summary of SPA/Ramsar Bird Habitat Requirements

Species	Description
Little Tern	A strictly coastal, summer visitor.
Purple Sandpiper	A winter visitor to almost any rocky shore in the UK.
Turnstone	Preference for foraging amongst rocks. Present mainly during the winter.
Sanderling	Preference for long sandy beaches, a winter visitor.
Golden Plover	Present in lowland areas during the winter (present in uplands during breeding season).
Great Cormorant	Found around the UK coastline on rocky shores, coastal lagoons and estuaries. Occasionally further inland during winter.
Black Legged Kittiwake	Mainly coastal, small number of inland populations. Mainly present during summer and autumn before spending winter months at sea.
Arctic Tern	Mainly coastal (though can be seen inland during migration), a summer visitor
Common Eider	A coastal species, present year-round.

Table 3: Summary of SPA/Ramsar bird habits

4.4 Additional Sources of Data

The ARCUS Non-breeding Bird report (2015) recorded Sanderling along the section of coast adjacent to the site for feeding purposes, but not roosting. Other species detailed above did not use this section of coastline, probably due to the higher levels of disturbance. Sanderling have a preference for sandy beaches, which is what is present immediately adjacent to the site. They will feed along the shoreline in the shallow waters and are quicker to return if disturbed e.g., by a dog.

South Pier, just over 1km to the north, and the European designated sites 450 metres to the south recorded SPA birds Purple Sandpiper, and Turnstone roosting and feeding in these areas.

The BSG Non-breeding Bird report (2016) again recorded Purple Sandpiper and Turnstone to the north by the pier and south by the European designated sites. Some Turnstone were recorded slightly further south of the pier, but still over 700 metres from the site boundary. Sanderling were again recorded within this section of coastline, but further north than the site boundary (approx. 500m away). None of the other species listed above were recorded within this section of coastline.

4.5 Designated Sites Qualifying Features

Table 4: Designated Sites Qualifying Features

Northumbria Coast SPA	This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive: <u>During the breeding season:</u> • Little Tern <i>Sterna albifrons</i>, 40 pairs representing at least 1.7% of the breeding population in Great Britain (5 year peak mean 1991/2 - 1995/6) <u>This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:</u> • Purple Sandpiper <i>Calidris maritima</i>, 763 individuals representing at least 1.5% of the wintering Eastern Atlantic - wintering population (5 year peak mean 1991/2 - 1995/6) • Turnstone <i>Arenaria interpres</i>, 1,456 individuals representing at least 2.1% of the wintering Western Palearctic - wintering population (5 year peak mean 1991/2 - 1995/6) The conservation objectives identified by Natural England for this site are as follows: “Subject to natural change, maintain in favourable conditions the habitats for the internationally important populations of the regularly occurring Annex 1 bird species (little tern <i>Sterna albifrons</i>), under the Birds Directive, in particular; Sandy Beaches at Low Newton & Shallow inshore waters at Low Newton.” “Subject to natural change, maintain in favourable conditions the habitats for the internationally important populations of regularly occurring migratory bird species purple sandpiper <i>Calidris maritima</i> and turnstone <i>Arenaria interpres</i>, under the Birds Directive, in particular; Rocky shores with associated boulder and cobble beaches & Artificial high tide roost sites.”
Northumbria Coast Ramsar	The Northumbria Coast Ramsar site comprises several discrete sections of rocky foreshore between Spittal, in the north of Northumberland, and an area just south of Blackhall Rocks in County Durham. These stretches of coast regularly support nationally important numbers of purple sandpiper and high concentrations of turnstone. The Ramsar site also includes an area of sandy beach at

	Low Newton, which supports a nationally important breeding colony of little tern, and parts of three artificial pier structures which form important roost sites for purple sandpiper. Ramsar criterion 6 – species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation): Species regularly supported during the breeding season: Little tern , <i>Sterna albifrons albifrons</i>, W Europe 43 apparently occupied nests, representing an average of 2.2% of the GB population (Seabird 2000 Census) Species with peak counts in winter: Purple sandpiper , <i>Calidris maritima maritima</i>, E Atlantic -wintering 291 individuals, representing an average of 1.6% of the GB population (5 year peak mean 1998/92002/3) Ruddy turnstone , <i>Arenaria interpres interpres</i>, NE Canada, Greenland/W Europe & NW Africa 978 individuals, representing an average of 1% of the population (5 year peak mean 1998/92002/3) General ecological features: The site consists mainly of areas of rocky shore with associated boulder and cobble beaches. These support a rich algal flora and associated fauna and form an important feeding area for wading birds. The areas of sandy beach within the site support a flora which includes marram <i>Ammophila arenaria</i> and sea sandwort <i>Honkenya peploides</i>. 22. Noteworthy fauna: Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS. Birds Species currently occurring at levels of national importance: Species regularly supported during the breeding season: Great cormorant , <i>Phalacrocorax carbo carbo</i>, NW Europe 248 apparently occupied nests, representing an average of 2.9% of the GB population (Seabird 2000 Census) Black-legged kittiwake , <i>Rissa tridactyla tridactyla</i>, E Atlantic 4070 apparently occupied nests, representing an average of 1.1% of the GB population (Seabird 2000 Census) Arctic tern , <i>Sterna paradisaea</i>, Europe/N Atlantic 1200 apparently occupied nests, representing an average of 2.2% of the GB population (Seabird 2000 Census) Species with peak counts in spring/autumn: European golden plover , <i>Pluvialis apricaria apricaria</i>, P. a. altifrons Iceland & Faroes/E Atlantic 2911 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/92002/3) Species with peak counts in winter: Common eider , <i>Somateria mollissima mollissima</i>, NW Europe 1361 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/92002/3) Sanderling , <i>Calidris alba</i>, Eastern Atlantic 419 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/92002/3)
Durham Coast SAC	Annex I habitats that are a primary reason for selection of this site <i>1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts</i> The Durham Coast is the only example of vegetated sea cliffs on magnesian limestone exposures in the UK. These cliffs extend along the North Sea coast for over 20 km from South Shields southwards to Blackhall Rocks. Their vegetation is unique in the British Isles and consists of a complex mosaic of paramaritime, mesotrophic and calcicolous grasslands, tall-herb fen, seepage flushes and wind-

	pruned scrub. Within these habitats rare species of contrasting phytogeographic distributions often grow together forming unusual and species-rich communities of high scientific interest. The communities present on the sea cliffs are largely maintained by natural processes including exposure to sea spray, erosion and slippage of the soft magnesian limestone bedrock and overlying glacial drifts, as well as localised flushing by calcareous water. <i>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site</i> Not applicable. <i>Annex II species that are a primary reason for selection of this site</i> Not applicable. <i>Annex II species present as a qualifying feature, but not a primary reason for site selection</i> Not applicable. Threats, pressures and activities with impacts on the site: <table><tr><th>Rank</th><th>Threats and pressures</th><th>Inside/Outside/Both</th></tr><tr><td>High</td><td>Human induced changes in hydraulic conditions</td><td>B</td></tr><tr><td>High</td><td>Invasive non-native species</td><td>B</td></tr><tr><td>High</td><td>Other human intrusion and disturbance</td><td>I</td></tr><tr><td>High</td><td>Abiotic (slow) natural process</td><td>I</td></tr><tr><td>High</td><td>Fertilisation</td><td>B</td></tr></table>	Rank	Threats and pressures	Inside/Outside/Both	High	Human induced changes in hydraulic conditions	B	High	Invasive non-native species	B	High	Other human intrusion and disturbance	I	High	Abiotic (slow) natural process	I	High	Fertilisation	B
Rank	Threats and pressures	Inside/Outside/Both																	
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Durham Coast SSSI	The Durham Coast between South Shields and Hart Warren is of considerable biological, geological and physiographic interest. It contains most of the paramarine Magnesian Limestone vegetation in Britain, as well as a species-rich dune system, and supports nationally important numbers of wintering shore birds and breeding Little Terns which contribute to the internationally important populations of the north-east coast.																		

4.6 Potential Impacts Identified

The area of interest under this report is entirely outside any of the European sites; therefore, no direct impacts in terms of habitat loss and/or disturbance are anticipated. However, qualifying bird species have been observed along the coast within 500 metres of the site, indicating that the site has a potential functional link to these European sites. Functionally Linked Land (FLL) is defined as, '*areas of land or sea outside of the boundary of a European site which may be important ecologically in supporting the populations for which the site has been designated or classified.*'

The following potential impacts have been discussed in relation to the European Sites, their reasons for designation, and FLL:

- Disturbance of overwintering SPA/Ramsar species by increased noise levels during the construction phase:
 - Disturbance of roosting SPA/Ramsar species.
 - Disturbance of foraging SPA/Ramsar species.
- Pollution of water, and therefore, habitats and food sources during the construction phase.
- Air pollution during the construction phase.
- Disturbance of foraging coastal birds by increased visitor pressures
- Damage to qualifying habitats.
- Disturbance of birds via light pollution.

5.0 ANALYSIS OF RESULTS

- 5.1** Each impact has been assessed below (Table 5) to identify the likelihood of effects on the European sites and/or qualifying features and whether these could be significant. Avoidance measures which are incorporated in the project development are taken into consideration within this assessment.

Table 5: Identified Potential Impacts

Potential Impact: Disturbance of overwintering SPA/Ramsar species by increased noise levels during the construction phase	
Receptor	Roosting and/or foraging SPA/Ramsar species or other species of conservation concern
Discussion: Noise disturbance includes general construction disturbance, such as use of heavy machinery, noise producing equipment, ground works and increases in vehicular traffic. Influencing factors to consider when analysing whether there is a significant impact caused by noise: • In general, 72dB is considered to be a threshold for significance at the receptor point. • The receptor point in this instance would be the South Pier, the sections of coastline adjacent to site, and the European designated sites to the south. The distances to the receptor sites from the site are: South Pier is 1km north where birds roost and feed; adjacent shoreline 50 metres away where Sanderling feed; and the European designated sites approx. 450 metres south where roosting and feeding locations are present. • Document entitled Waterbird Disturbance Mitigation Toolkit (Cutts, Hemingway and Spencer, 2013) states noise below 50db is low impact. However, birds in industrialised/urban areas are likely to be habituated to higher noise disturbance levels, and noise between 55-72dB in some highly disturbed areas e.g., industrial or urban areas and adjacent to roads, may feature a low level of disturbance provided the noise level was regular as birds will	

to often habituate to a constant noise level. In this area, with this section of coastline a tourist area of high disturbance, it considered highly likely that the birds will have habituated to a constant noise level.

- Sudden loud noises, in comparison to constant and consistent noise, causes the largest impact and elicits a disturbance response in birds (Cutts, Hemingway and Spencer, 2013).
- Average construction noise is around 80-90dB; full range is typically 78dB (such as power saws) to 111dB (such as pneumatic breakers).
- Noise pollution reduces by approximately 6dB per doubling of distance and barriers including buildings and walls reduce this further.

It is highly likely that some of the processes required during this project, will cause a significant amount of temporary noise at the receptor locations. It is anticipated that the operational phase of the project is not going to significantly alter the noise environment or noise level beyond current fluctuations, due to project having similar activities to those throughout this coastal resort.

According to BS 5228-1:2009 (British Standard, 2009) the loudest machinery generated from general site activities is a 17 m³ /min compressor, producing 123dB at source. An assessment of the potential noise levels at the receptor points was made using the website <http://www.masenv.co.uk/noisecalculator2>. No buffers were included in the assessment tool as part of the worst-case scenario. The resulting sound pressure level at the nearest receptor site (where the Sanderling's have been recorded approx. 50m away on the SSSI) would be approximately 80.9dB. This is above the threshold for significance, therefore noise disturbance on birds using the adjacent coastline/SSSI would be a significant impact.

The resulting noise at the European designated sites 450 metres away would be 63.1dB, which would not result in a significant impact on the birds using these sites.

Significant impact likely without avoidance/mitigation methods	Designated Sites - No Qualifying features – Moderate Significant impact
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Potential Impact: Pollution of water, and therefore, habitats and food sources.	
Receptor	European designated sites and qualifying features via water pathway, other aquatic and terrestrial mammals, bird, fish and vegetation
Discussion: Although the European sites are not immediately adjacent to the site, the SSSI is just 50 metres away, and a potential pathway exists to impact European sites through a water pollution event, spread directly via the sea. This may cause negative impacts if bird habitat and food sources are affected and / or cause injury to birds and marine life, present along the east of the docks. An additional pathway into the water course exists via drainage and runoff, wet cement and concrete are alkaline and corrosive and toxic to marine life, and along with soil and dust particulates, can also lead to increased siltation, sedimentation and nutrient enrichment entering the sea. A Construction and Environmental Management Plan (CEMP) will be in place to ensure any risk of a pollution incident occurring is minimised and procedures are in place should an incident occur. Given the small-scale nature of the works, distance to water and the designated sites, it is not expected that pollution will have a significant impact on the designated sites, nor adjacent habitats.	
Significant impact likely without avoidance/mitigation methods	Designated Sites – No Qualifying features – Negligible
Potential Impact: Air pollution during the construction phase	
Receptor	Surrounding environment and site fauna.
Discussion: The proposed development may some level of particulate pollution during the construction phase. This could relate to: • Use of vehicles and machinery producing increased particulates and gases. • Dust generated from construction processes and activities.	

- Improper storage of materials.

Activities associated with the proposed development are likely to involve dust generating activities during the construction phase, any increase in air pollution will be temporary and localised.

The scale of the works is unlikely to present conditions where an air pollutant, namely dust, could reach the European sites.

It is expected that a temporary increase in traffic and movement of machinery will occur during the construction and operational phases in order to facilitate the works. Increased vehicular pollution, such as nitrogen deposition may be caused, and dust particles may be released by movement over unconsolidated surfaces and from the storage and movement of materials.

The impact of the above will be minimised through adherence to a CEMP. This will include:

- No unnecessary idling of vehicles,
- Vehicles should be shut down when not in use,
- Use vacuum attachments on power tools wherever possible to reduce dust generation.

Significant impact likely without avoidance/mitigation method	Designated Sites – No Qualifying features – Negligible
Potential Impact: Disturbance of foraging coastal birds by increased visitor pressures	
Receptor	Birds foraging along the coastline including within the SPA and Ramsar
Discussion:	

It has been documented that recreational activities and dog walking are the most common causes of disturbance response behaviour in birds along the coastline (Arcus, 2015) and this can lead to reduced foraging and therefore reduced ability to survive.

As above, the closest Purple Sandpiper and Turnstone have been recorded is at the European Designated sites 450m away, with no SPA species of bird recorded any closer than this. However, Sandling, which are a notable species under the Ramsar designation, have been recorded on the coastline adjacent to site, 50 metres away (within the SSSI).

There is unlikely to be a significant impact based on the following information:

- The number of birds that have been recorded foraging along the coast adjacent to the site is low, with no SPA birds recorded on this section of the coast. The adjacent sandy beach is not used for roosting, only foraging.
- The stretch of sandy beach immediately adjacent to the proposals has very high existing levels of disturbance by recreational activity and dog walking.
- The small number of beach huts are unlikely to significantly increase visitor pressure given their location within a wider resort area with a pleasure park, restaurants, and other amenities already present. The beach huts are retail pods will be additional facilities for beach goers already planning to visit site.
- The huts and adjacent facilities are more likely to encourage users to stay within that section of beach other than venturing further onto the European designated sites.

Based on this information and the risk relating to potential for disturbance to birds foraging along the coastline, there is unlikely to be a significant increase in recreational activities or dog walking along the coastline above the high levels already present.

Significant impact likely without avoidance/mitigation method	Designated Sites – Negligible Qualifying features – Negligible
Potential Impact: Damage to qualifying habitats	
Receptor	Damage to qualifying habitats within the SAC, and important habitats to support birds within the SPA/Ramsar
Discussion: The SAC is designated for supporting rare and important plant communities, and the description within the SPA designation is that habitats which support the birds such as Purple Sandpiper and Turnstone should be maintained in favourable condition e.g., rocky shores with associated boulder and cobble beaches & artificial high tide roost sites. As detailed above, the construction phase (dust and pollution) is unlikely to impact these designated sites by reduction of impacts through use of a CEMP and distance to the sites from the development. Increased footfall from and increase in visitor pressure could result in damage to habitats. However, as stated above, the beach huts and retail pods are more likely to encourage users to stay local within the sandy beach area other than venturing as far as the European designated sites. The SSSI within this area is again just a section of tidal beach, which would suffer negligible additional impacts from the proposals. Visitor pressure across this area is already very high, with proposals unlikely to increase visitor numbers significantly.	
Significant impact likely without avoidance/mitigation method	Designated Sites – Negligible Qualifying features – Negligible
Potential Impact: Disturbance of birds via light pollution	
Receptor	Birds along the coastline within the SPA and Ramsar
Discussion:	

A paper by Hockin et al. (1992) suggests that birds can become disorientated by artificial lighting. It can have two effects; it can lengthen foraging times by allowing nocturnal feeding, and by causing direct mortality and disorientation. Tall light structures can be a particular problem.

The site is already situated on a promenade with streetlights throughout and across adjacent carparks, paths and restaurants. Any proposed lighting would have no significant impact. Designated sites are too far away to be impacted.

Significant impact likely without avoidance/mitigation method	Designated Sites – No Qualifying features – Negligible
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6.0 CONCLUSIONS

6.1 Summary of Potential Impacts on FLL

Table 6: Summary of likely significant effects on designated sites and FLL.

Potential Impact	Likelihood for significant effect on European Sites	Likelihood for significant effect on localised wildlife (including qualifying/notable species) and FLL
Disturbance of overwintering SPA/Ramsar birds by increased noise levels during the construction phase	No	Moderate
Pollution of water, and therefore, habitats and food sources.	No	Negligible
Air pollution during the construction phase	No	Negligible
Disturbance of foraging coastal birds by increased visitor pressures	Negligible	Negligible
Damage to qualifying habitats.	Negligible	Negligible
Disturbance of birds via light pollution.	No	Negligible

While the actual proposed work area is not a primary roost area for SPA/RAMSAR species, but it has been identified as functionally linked to the designated sites via the adjacent coastline which is also part of a SSSI. As such, impacts to the FLL may have a significant adverse effect upon the species, and in turn, the integrity of the designated sites. Therefore, in spite of an effect occurring while the species is beyond the boundary of the designated sites, the potential impact would be considered to undermine the conservation objectives for the qualifying species.

6.2 Appropriate Assessment

As the development will not significantly contribute to an increase in visitor pressures, direct damage or actual disturbance to European Site qualifying habitats, the cumulative impacts have not been evaluated.

It has been assessed that there will be no direct Adverse Effect on Integrity (AEOI) on the SPA, SAC or Ramsar sites, given the distance from the proposed work area.

Therefore, the impacts from the proposed works will relate to qualifying/notable species which utilise functionally linked lands adjacent to site.

As a result, this assessment evaluated that the main direct impacts to qualifying/notable species will be the potential increase in noise pollution during construction. Due to the nature of the proposals, this will form temporary disturbance only.

Noise pollution during the construction phase is likely to be significant at the source. This has been calculated based on the worst-case scenario of 123dB on site noise. However, avoidance of the peak wintering bird period November-February for the construction phase would reduce/negate the need for additional mitigation measures. Any works that end up falling within this period must be those at lower noise levels (see Table 7 below).

6.3 Proposed Mitigation (Table 7)

To reduce the likely significant impacts identified to suitable levels, the following mitigation measures are proposed in Table 7. The measures below are all measures that would form part of a CEMP for the construction phase of the site. Implementing the proposed mitigation will reduce the likely significant impacts identified to a suitable level and protect the integrity of the European Sites.

As part of the analysis of the proposed works, there were also concerns flagged which are unlikely to impact on the European Site or the SPA/Ramsar and notable bird species, but can still be significant at site level on the noteworthy fauna present, as well as the FLL present. Mitigation measures relating to these impacts are also included. As a result of the avoidance and mitigation measures to be implemented (detailed in Table 7), the competent authority would be able to conclude no AEIOI on SPA.

Table 7: Summary of avoidance and mitigation measure to be implemented	
Minor Significant Impact Identified relating to FFL	Mitigation
Noise disturbance during construction	It is expected that during the construction phase of the project, noise from vehicles, heavy machinery, demolition etc will be caused. Implementing pollution prevention good practice should aim to reduce disturbance caused by noise wherever possible. Generalised noise reduction, which reduces impacts on wildlife are as follows: • Restrict working hours to 8am – 6pm (Monday – Sunday) • Noisy vehicles fitted with exhaust silencers wherever possible • No unnecessary idling of vehicles – vehicles should be shut down when not in use • Noisy tools fitted with manufacturer recommended mufflers or silencers Specific noise reduction mitigation must be implemented on site: • Construction works that generate high noise levels will be carried out prior to the main wintering bird period (avoid November – February inclusive). This includes use of a concrete breaker to remove the existing retaining element and any existing foundations. Following this, the remaining noise is expected to be limited to nail guns associated with the construction of the huts, which will be at a lower noise level (most industrial and construction nail guns operate around 97–104 dB) with the aim to still have these works completed prior to November. • Should the later works (using nail guns) over run into November, when this lower level of noise is run through the https://noisetools.net/barriercalculator, the resulting sound pressure level at the nearest receptor site (where the Sanderling's have been recorded approx. 50m away on the SSSI) would be approximately 61.9dB, which is below the acceptable non-significant level. In addition: • The developer will implement quieter processes or machinery (such as soft-start machinery where the noise levels are controlled and gradually increase) when it is possible. • Use new equipment which is generally much quieter than old equipment. Use of certain manufacturers known to produce equipment specifically incorporating noise reduction. The production of noise and active reduction of noise should be taken into account when selecting any machinery to use. For example, noise-reducing saw blades can cut noise levels in half when cutting masonry blocks. • If old (and generally noisier) equipment is being used, fit simple modifications such as new mufflers or sound absorbing materials. • Proper maintenance and inspections of equipment can reduce noise levels by as much as 50%.

	• Compressors should be fitted with properly lined and sealed acoustic covers which should be kept closed whenever in use. Pneumatic percussive tools should be fitted with mufflers or silencers of the type recommended by the manufacturers. - Equipment which breaks concrete, brickwork or masonry by bending or bursting or “nibbling” shall be used in preference to percussive tools where practicable. - Where practicable, rotary drills and bursters activated by hydraulic, chemical or electrical power shall be used for excavating hard or extrusive material. - Where practicable, equipment powered by mains electricity shall be used in preference to equipment powered by internal combustion engine or locally generated electricity. - Neither any part of the works nor any maintenance of plant shall be carried out in such a manner as to cause unnecessary noise or vibration except in the case of an emergency when the work is absolutely necessary for the saving of life or property or the safety of the works. - Plant shall be maintained in good working order so that extraneous noise from mechanical vibration, creaking and squeaking is kept to a minimum. - Noise emitting machinery which is required to run continuously shall be housed in a suitable acoustic lined enclosure wherever practicable. - Care should be taken to reduce noise when loading or unloading vehicles or dismantling scaffolding or moving materials etc. It should be noted that, should timescales slip, and works with the concrete breaker commence in the November-February period, acoustic screens will be needed to reduce noise levels to below the significant threshold level.
Dust/air pollution	Fuel spills from vehicles/ Accidental spillage of fuel and chemicals • All re-fuelling etc which poses a spillage risk of fuel or other chemicals will take place in a designated area (where spill kits are available). • Spill kits will be available in the fuelling designated area. • The designated area will be at least 10m from surface water drainage. • The ground will be covered in an impermeable sheet. • A preference for using biodegradable oils wherever possible.

- Dilution of any hazardous materials will take place within the designated area only.
- Any major spillage which could lead to pollution of the watercourse is reportable to the Environment Agency.

Improper storage of fuel and chemicals

- Fuel and chemicals with potential to be hazardous to the environment will be stored in a lockable unit.
- Transportation of any hazardous materials will be undertaken under a suitable method statement outlining course of action to prevent spillage and ensure safe use.
- Storage areas equipped with spillage kits.

Pollutants entering the sea. Wet cement, concrete and grout which are alkaline and corrosive. Increased siltation, sedimentation and nutrient enrichment entering the sea.

- Allocate a designated area on site where mixing and washing takes place.
- Provide the ground with an impermeable cover.
- Locate the designated area at least 10m from surface water drainage.
- A siltbuster will be available on site as an alternative emergency mechanism particularly after heavy rainfall.
- Wash water is collected and settled out before treatment or disposal to foul sewage (with permission).
- Plant and wheel washing will be undertaken in a designated area of hard standing at least 10 metres from any watercourse or surface water drain, run-off collected in an impermeable sump, and resulting suspended solids in the water allowed to settle before being discarded in foul sewage (with relevant permission) OR treated on site and discarded via surface water drainage.

Potential sources of air pollution includes;

- Use of vehicles and machinery producing increased CO² and other gases
- Use of electric tools

Additionally, pollution prevention will be in place to minimise this impact:

- Burning of materials on site not permitted
- Wheel wash facilities available to minimise dust
- Any earth stockpiles within the compound to be treated accordingly to prevent dust such as damping down or covering
- Inspections undertaken of the road and access points, sweeping roads as necessary to collect volatile materials from surfaces
- Any skips will be covered overnight to prevent littering

- | | |
|--|---|
| | <ul style="list-style-type: none">• No unnecessary idling of all vehicles and heavy machinery• All volatile chemicals and fuels will be safely deposited in a lockable store or stored in a bunded area as appropriate• Use of vacuum attachments on power tools. |
|--|---|

6.4 Implementation Plan

1. All contractors should be fully briefed on all mitigating control measures to be adopted on site.
2. A responsible person will be nominated to implement briefing on control measures, such as the site manager or principal contractor.
3. All contractors on site will be expected to comply with all recommended mitigation measures within this report. Non-compliance is reportable to the site manager.
4. A record of non-compliance will be kept by the site manager, and measures taken to rectify the issue.
5. Any pollution incidents should be immediately reported to the EA Incident Hotline on 0800 80 70 60.

7.0 REFERENCES

Arcus (2015) Sunderland and South Tyneside Bird Surveys 2014 – 2015 non breeding season report

BSG Ecology (2016) Coastal Sites: Sunderland and South Tyneside 2015-2016 Non-breeding Bird Survey Report

Considerate Constructors Scheme: <https://www.ccscheme.org.uk/>

Construction site noise:
<https://www.bigrentz.com/blog/construction-noise>

Controlling Noise on Construction Sites:
<https://www.lhsfna.org/LHSFNA/assets/File/bpguide%202014.pdf>

Cutts, Hemingway and Spencer (2013) Waterbird Disturbance Mitigation Toolkit: Information Estuarine Planning and Construction Projects. University of Hull version 3.2

Durham Coast SAC: <https://sac.jncc.gov.uk/site/UK0030140>

Durham Coast SSSI:
<https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1000255>

Hockin et.al. (1992) Examination of the Effect of Disturbance on Birds with Reference to its Importance in Ecological Assessments. *Journal of Environmental Management*. 36, 253-286

IPC (2011) Habitat Regulations Assessment. Advice Note 10

MAGIC: www.magic.gov.uk

Northumbria Coast SPA Details: <http://jncc.defra.gov.uk/page-1997>

Northumbria Coast Ramsar: jncc.defra.gov.uk/pdf/RIS/UK11049.pdf

Pollution prevention guidelines
www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/

The Conservation of Habitats and Species Regulations 2017:
<http://www.legislation.gov.uk/uksi/2010/490/contents/made>

APPENDIX A

Designated Site Citations

County:	Durham/Cleveland/ Tyne & Wear	Site Name:	Durham Coast
Status:	Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act, 1981, as amended.		
Local Planning Authority:	Durham County Council Hartlepool Borough Council Easington District Council City of Sunderland South Tyneside Metropolitan Borough Council		
National Grid Reference:	NZ 381685 to NZ 495362	Area:	765.41 (ha) (ac)
Ordnance Survey Sheet 1:50 000	88, 93	1:10 000	NZ 36 NE, SE NZ 43 NE NZ 44 NW, SW, SE NZ 45 NW, SW NZ 46 SW
First Notified:	1960	Date of Second Revision:	1999

First Notified under the Wildlife and Countryside Act: 1985

Other Information:

The boundary of the Durham Coast has been extended during the 1999 revision and incorporates the following sites previously notified under Section 28 of the Wildlife and Countryside Act, 1981 (as amended): Trow Point to Whitburn Steel, Seaham Harbour, Shippersea Bay and Warren House Gill, Blackhalls Rocks and Hart Warren Dunes.

The site is adjacent to Tees and Hartlepool Foreshore and Wetlands SSSI, Castle Eden Dene SSSI and Hawthorn Dene SSSI.

Part of the site is listed as Hart Warren to Hawthorn Dene Coast in 'A Nature Conservation Review', edited by D. A. Ratcliffe (1977), Cambridge University Press.

The site contains six Geological Conservation Review (GCR) sites: Marsden Bay, Whitburn, Blackhalls Rocks, Seaham Harbour, Shippersea Bay and Warren House Gill. Parts of the site are within the Castle Eden Dene National Nature Reserve and the Durham Coast National Nature Reserve.

Parts of the Durham Coast fulfil criteria for consideration as part of a proposed Wetland of international importance under the Ramsar Convention and proposed Special Protection Area under the European Community Directive 79/409/EEC on the Conservation of Wild Birds.

The site supports the following species which are listed in British Red Data Books: Birds, edited by L. A. Batten, 1990: little tern and British Red Data Books Insects, edited by D. B. Shirt, 1987: *Photedes captiuncula* (least minor moth) and *Helophorus dorsalis* (water beetle).

Description and Reasons for Notification:

The Durham Coast between South Shields and Hart Warren is of considerable biological, geological and physiographic interest. It contains most of the paramaritime Magnesian Limestone vegetation in Britain, as well as a species-rich dune system, and supports nationally important numbers of wintering shore birds and breeding little terns which contribute to the internationally important populations of the north-east coast.

Vegetation Communities:

The paramaritime Magnesian Limestone vegetation on the Durham Coast is unique in the mix of plant communities which it contains, and is very different from the other lowland areas of the Magnesian Limestone grassland found in County Durham.

On exposed heathlands limited areas of maritime grassland, containing red fescue *Festuca rubra*, sea plantain *Plantago maritima* and sea thrift *Armeria maritima* occur. This gives way on more sheltered slopes to extensive calcareous grasslands, support glaucous sedge *Carex flacca*, wild thyme *Thymus praecox*, common rock-rose *Helianthemum nummularium*, bloody crane's-bill *Geranium sanguineum*, purple milk-vetch *Astragalus danicus*, small scabious *Scabiosa columbaria*, saw-wort *Serratula tinctoria* and pyramidal orchid *Anacamptis pyramidalis*. Wet flushes support a range of vegetation from carpets of the moss *Cratoneuron commutatum* to tall stands of hemp agrimony *Eupatorium cannabinum* and common reed *Phragmites australis*. A number of unusual plant species, including marsh helleborine *Epipactis palustris*, grass-of-Parnassus *Parnassia palustris* and the nationally scarce round-leaved wintergreen *Pyrola rotundifolia* and bird's-eye primrose *Primula farinosa*, occur in such flushes.

Species-rich neutral grassland has developed on the plateau above the cliff slope where a thick mantle of boulder clay isolates the vegetation from the limestone. Characteristic species found here include crested dog's-tail *Cynosurus cristatus*, common bent *Agrostis capillaris*, common knapweed *Centaurea nigra* and pepper saxifrage *Silene silaus*. Bloody crane's-bill also is present, reflecting the close proximity of the sea, and there are some relict plants of heather *Calluna vulgaris*.

The unstable boulder clay slopes support open vegetation with colt's-foot *Tussilago farfara* and creeping bent *Agrostis stolonifera*. Within the coastal gills bracken *Pteridium aquilinum* is gradually replaced inland by gorse *Ulex europaeus* scrub and woodland, with ash *Fraxinus excelsior*, wych elm *Ulmus glabra* and hazel *Corylus avellana* all present.

Over large stretches the beaches have been covered by a heavy accumulation of mine waste, and shore communities containing species such as sea couch *Elymus pycnanthus*, sea aster *Aster tripolita* and sea thrift are of limited extent. Much of this waste is now being cleared.

The dune system and golf course roughs at Hart Warren supports many species characteristic of both northern and southern British dune floras. The fixed dunes are of particular interest for their species-rich flora and the presence of the nationally scarce rush-leaved fescue *Festuca juncifolia*, sea barley *Hordeum marinum*, spring cinquefoil *Potentilla tabernaemontani* and burnt orchid *Orchis ustulata*. Among the species found on the fixed dunes and the adjacent grassland are bird's-foot trefoil *Lotus corniculatus*, lady's bedstraw *Galium verum*, kidney vetch *Anthyllis vulneraria*, cowslip *Primula veris*, harebell *Campanula rotundifolia*, lesser meadow-rue *Thalictrum minus*, burnet rose *Rosa pimpinellifolia*, spiny restharrow *Ononis spinosa*, purple milk-vetch, bloody crane's-bill and pyramidal orchid. A small dune slack supports populations of orchid *Dactylorhiza* spp. and common twayblade *Listera ovata*.

Birds:

The Durham coastline supports nationally important numbers of wintering purple sandpiper. A number of discrete sections of intertidal rock with associated boulder and cobble beaches provide feeding areas for these birds at most stages of the tidal cycle. Artificial structures as at Seaham Harbour and River Tyne South Pier are used as high tide roosts.

A beach at Crimdon was colonised by little tern in 1995 and now holds a nationally important breeding population.

Sanderling are present in nationally important numbers and turnstone and knot also use the site for feeding and roosting in winter. The cliffs at Marsden Bay also support a well-known seabird colony which includes kittiwake, fulmar and cormorant.

Invertebrates:

The coast is entomologically rich and supports colonies of the Durham Argus butterfly *Aricia artaxerxes salmacis* and the least minor moth *Photedes captiuncula*.

Geology:

The geology of the Durham Coast is characterised by the extensive cliff and foreshore exposures of the dolomites and limestones of later Permian age. These carbonate rocks, which were formerly known as the Magnesian Limestone, are now subdivided into several lithostratigraphical units. They were deposited in the Zechstein Sea in a relatively shallow landlocked sea that extended from northeast England to Poland. Straddling latitude 30° north during Late Permian times, the Zechstein Sea was subjected to high evaporation rates. As it was connected to open ocean to the north by a narrow shallow seaway, changes in global sea-levels affected the rates at which incoming sea-water could replace that lost by evaporation. During episodes of high global sea-level, recharge rates through the narrow sea-way were high, and so the salinity levels of the Zechstein Sea were normal and limestones were deposited in and around its margins. When global sea-levels fell, the amount of water flowing through the sea-way was significantly reduced, leading to elevated salinity levels and the formation of extensive evaporite deposits (particularly anhydrite (CaSO₄) and halite (NaCl)). Repeated rise and fall of global sea-level resulted in the deposition of five cycles of carbonate-evaporate deposition: these are known as the Zechstein cycles.

The three sites on the Durham coast selected by the Geological Conservation Review (GCR) for their Marine Permian interests demonstrate a variety of features which provide evidence of the physical and environmental conditions under which these rocks were deposited. The Permian carbonate rocks

also give rise to a characteristic set of rocky coastal landforms, and part of this coast has been selected to represent this type of coastal geomorphology.

The sea cliffs between Trow Pint and Whitburn Bay provide the key to understanding much of the Magnesian Limestone sequence. In the north, from Trow Pint to Frenchman's Bay, lowest beds exposed include the Yellow Sands, Marl Slate and Raisby Formation, and these are overlain in turn by the unique algal Trow Point Bed; the dissolution residue of the Hartlepool Anhydrite; collapsed and brecciated Concretionary Limestone strata; and possible lower beds of the Roker Dolomite Formation. The upper part of the Raisby Formation was affected by massive submarine slumping (the 'Downhill Slide') and at both Trow Point and Frenchman's Bay contains piles (olistostromes) of large slumped masses (olistoliths). Slightly higher strata exposed between Frenchman's Bay and Lizard Point are almost all of the Concretionary Limestone and feature both spectacular evidence of foundering and brecciation and also primary sedimentary lamination, turbidites and submarine slumps. Strata from Lizard Point southwards are mainly less-obviously affected by foundering and brecciation but feature abundant evidence of sedimentation higher on an unstable submarine slope and contain an important but restricted range of shelly fossils.

The coast to the north of Seaham Harbour provides by far the best surface exposures of both the Seaham Formation and the Seaham Residue, and is one of the best places in Britain for observing the effects of evaporite dissolution; it is also the best surface exposure of the highest beds of the Roker Dolomite Formation. The Seaham Formation here is unusual in its content of several thick units rich in calcite spherulites, some exceptionally large, and the Seaham Residue, the dissolution residue of the Cycle EZ2 (Fordon) evaporites, is at its thickest and most spectacular.

Blackhalls Rocks forms a 2 km section of coastal cliffs and shore platforms on the Durham coast approximately 8 km north-west of Hartlepool. The site consists of exposures in the marine Permian.

The coastal cliffs and shore platforms at Blackhalls Rocks constitute the largest and best exposure of the Hesleden Dene Stromatolite Biostrome. The biostrome is almost entirely of dolomite rock and comprises a thick and highly varied boulder conglomerate overlain by a thicker unit of algal laminates ('stromatolites'). The conglomerate is formed mainly of rolled cobbles and boulders derived by erosion of the underlying (but unexposed) reef-flat rocks of the Ford Formation. The algal laminates include a strikingly complex and finely laminated basal layer and several generations of spectacular domes individually up to 1.5 m high and 18 m across. The sequence is capped by the Roker Dolomite Formation and the overlying Seaham Residue.

Shippersea Bay is a cliff-lined bay lying approximately 5 km south of Seaham. It is a vertical cliff of Magnesian Limestone some 24 m high, overlain by clays, sands and gravels of Quaternary age. Warren House Gill lies about 2.5 km south of Shippersea Bay. The interest is preserved in a valley incised into the Magnesian Limestone.

There is very little evidence of the earlier part of the Quaternary in north-eastern England. The most probable reason for this is that the later glaciations reworked the material deposited during earlier glaciations and interglacials. Two sites on the Durham Coast provide evidence of the presence of Quaternary sediments that predate the last glaciation.

At Shippersea Bay the bevelled upper surface of the Magnesian Limestone represents the wave-cut platform on which rest the deposits of the Easington Raised Beach. These deposits consist of 4 m of sand and gravel overlain by boulder clays. The remains are of molluscan shells which occur in the sands of taxa indicating a temperate climate with sea surface temperatures 3–4 degrees above present temperatures. These raised beach deposits have been assigned to the Ipswichian Interglacial,

indicating that the overlying boulder clays are Devensian in age. This site provides important data relating to Quaternary events in northern England and the molluscan fauna will be the subject of further study.

A pre-Devensian till containing mollusc remains and Scandinavian erratics lies unconformably over the Magnesian Limestone bedrock at Warren House Gill. This till is overlain by a loess unit and then a tripartite sequence of Devensian drift deposits where sands and gravels are recorded interbedded between two tills.

Marsden Bay is an important site for coastal geomorphology and includes both beach, rock and cliff features. It is notable for a suite of coastal cliff and shore platforms cut into Magnesian Limestone. Unlike many other sites, there is a lack of major fault and joint controls, so that an intricate assemblage of coastal forms, including textbook examples of stacks and arches, have developed as local individual weaknesses were exploited by marine erosion processes. It is a classic locality for beach process studies, deriving from the work of C. A. M. King during the 1950s. As Marsden Bay is enclosed by headlands, sediment supply through longshore drift is unlikely, and sand must be supplied to the beach from a zone offshore. King's study of this beach demonstrated how onshore and offshore winds, combined with different conditions of calm and swell, affected wavy energy and form, controlling the constructive and destructive processes influencing beachform and bulk.

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX.22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

Joint Nature Conservation Committee

Monkstone House

City Road

Peterborough

Cambridgeshire PE1 1JY

UK

Telephone/Fax: +44 (0)1733 – 562 626 / +44 (0)1733 – 555 948

Email: RIS@JNCC.gov.uk

FOR OFFICE USE ONLY.

DD MM YY

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

Designated: 02 February 2000

3. Country:

UK (England)

4. Name of the Ramsar site:

Northumbria Coast

5. Designation of new Ramsar site or update of existing site:

This RIS is for: Updated information on an existing Ramsar site

6. **For RIS updates only**, changes to the site since its designation or earlier update:

a) Site boundary and area:

**** Important note:** If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site included:

Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

- i) **hard copy** (required for inclusion of site in the Ramsar List): yes ✓ -or- no ☐;
- ii) **an electronic format** (e.g. a JPEG or ArcView image) Yes
- iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables** yes ✓ -or- no ☐;

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site boundary is the same as, or falls within, an existing protected area.

For precise boundary details, please refer to paper map provided at designation

8. Geographical coordinates (latitude/longitude):

55 27 58 N 01 35 18 W

9. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Nearest town/city: Newcastle

The site comprises several discrete stretches of the coastline in north-east England, between Spittal in the north of Northumberland to an area just south of Blackhall Rocks in County Durham.

Administrative region: Durham; North Tyneside; Northumberland; South Tyneside; Sunderland; Tyne and Wear

10. Elevation (average and/or max. & min.) (metres): 11. Area (hectares): 1107.98

Min. -1
Max. 8
Mean 0

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The Northumbria Coast Ramsar site comprises several discrete sections of rocky foreshore between Spittal, in the north of Northumberland, and an area just south of Blackhall Rocks in County Durham. These stretches of coast regularly support nationally important numbers of purple sandpiper and high concentrations of turnstone. The Ramsar site also includes an area of sandy beach at Low Newton, which supports an nationally important breeding colony of little tern, and parts of three artificial pier structures which form important roost sites for purple sandpiper.

13. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

6

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Ramsar criterion 6 – species/populations occurring at levels of international importance.

Qualifying Species/populations (as identified at designation):

Species regularly supported during the breeding season:

Little tern , *Sterna albifrons albifrons*, W Europe 43 apparently occupied nests, representing an average of 2.2% of the GB population (Seabird 2000 Census)

Species with peak counts in winter:

Purple sandpiper , *Calidris maritima maritima*, E Atlantic -wintering 291 individuals, representing an average of 1.6% of the GB population (5 year peak mean 1998/9-2002/3)

Ruddy turnstone , *Arenaria interpres interpres*, NE Canada, Greenland/W Europe & NW Africa 978 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)

Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually. See www.bto.org/survey/webs/webs-alerts-index.htm.

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Atlantic

b) biogeographic regionalisation scheme (include reference citation):

Council Directive 92/43/EEC

16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	acidic, basic, neutral, shingle, sand, igneous, sedimentary, sandstone, metamorphic, slate/shale, limestone/chalk, clay, gravel
Geomorphology and landscape	coastal, crags/ledges, open coast (including bay), cliffs, pools, intertidal rock
Nutrient status	no information
pH	no information
Salinity	saline / euhaline
Soil	mainly mineral
Water permanence	usually permanent

Summary of main climatic features	Annual averages (Boulmer, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/boulmer.html) Max. daily temperature: 11.9° C Min. daily temperature: 5.6° C Days of air frost: 34.5 Rainfall: 651.0 mm Hrs. of sunshine: 1540.4
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General description of the Physical Features:

The Northumbria Coast includes much of the coastline between the Tweed and Tees estuaries, consisting of mainly discrete sections of rocky shore with associated boulder and cobble beaches. The site also includes parts of three artificial pier structures and a small section of sandy beach.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

The Northumbria Coast includes much of the coastline between the Tweed and Tees estuaries, consisting of mainly discrete sections of rocky shore with associated boulder and cobble beaches. The site also includes parts of three artificial pier structures and a small section of sandy beach.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Shoreline stabilisation and dissipation of erosive forces, Sediment trapping

19. Wetland types:

Marine/coastal wetland

Code	Name	% Area
D	Rocky shores	96
E	Sand / shingle shores (including dune systems)	3.3
Other	Other	0.5
M	Rivers / streams / creeks: permanent	0.2

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

The site consists mainly of areas of rocky shore with associated boulder and cobble beaches. These support a rich algal flora and associated fauna and form an important feeding area for wading birds. The areas of sandy beach within the site support a flora which includes marram *Ammophila arenaria* and sea sandwort *Honkenya peploides*.

Ecosystem services

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

None reported

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Birds**Species currently occurring at levels of national importance:****Species regularly supported during the breeding season:**

Great cormorant , <i>Phalacrocorax carbo carbo</i> , NW Europe	248 apparently occupied nests, representing an average of 2.9% of the GB population (Seabird 2000 Census)
Black-legged kittiwake , <i>Rissa tridactyla tridactyla</i> , E Atlantic	4070 apparently occupied nests, representing an average of 1.1% of the GB population (Seabird 2000 Census)
Arctic tern , <i>Sterna paradisaea</i> , Europe/N Atlantic	1200 apparently occupied nests, representing an average of 2.2% of the GB population (Seabird 2000 Census)
Species with peak counts in spring/autumn: European golden plover , <i>Pluvialis apricaria apricaria</i> , P. a. altifrons Iceland & Faroes/E Atlantic	2911 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
Species with peak counts in winter: Common eider , <i>Somateria mollissima mollissima</i> , NW Europe	1361 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3)
Sanderling , <i>Calidris alba</i> , Eastern Atlantic	419 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

None reported

23. Social and cultural values:

Describe if the site has any general social and/or cultural values e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

Aesthetic
Environmental education/ interpretation
Non-consumptive recreation
Other
Scientific research
Sport fishing
Tourism
Transportation/navigation

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? No

If Yes, describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:

- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

Ownership category	On-site	Off-site
Non-governmental organisation (NGO)	+	+
Local authority, municipality etc.	+	+
National/Crown Estate		+
Private	+	+
Public/communal		+

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+
Recreation	+	+
Current scientific research	+	
Collection of non-timber natural products: (unspecified)	+	+
Fishing: (unspecified)	+	+
Fishing: commercial	+	+
Fishing: recreational/sport	+	+
Marine/saltwater aquaculture		+
Gathering of shellfish	+	+
Shell collection	+	+
Bait collection	+	+
Arable agriculture (unspecified)		+
Permanent arable agriculture		+
Grazing (unspecified)		+
Hay meadows		+
Industry		+
Sewage treatment/disposal	+	+
Harbour/port	+	+
Urban development		+
Non-urbanised settlements		+

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

Explanation of reporting category:

1. Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.
2. Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?
No factors reported	NA				

For category 2 factors only.

What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?

Is the site subject to adverse ecological change? NO

27. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	
Special Protection Area (SPA)	+	
Land owned by a non-governmental organisation for nature conservation	+	+
Site management statement/plan implemented	+	
Area of Outstanding National Beauty (AONB)	+	+
Special Area of Conservation (SAC)	+	

b) Describe any other current management practices:

The management of Ramsar sites in the UK is determined by either a formal management plan or through other management planning processes, and is overseen by the relevant statutory conservation agency. Details of the precise management practises are given in these documents.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No information available

29. Current scientific research and facilities:

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Fauna:

Monitoring of bird populations

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

None reported

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

A diverse range of recreational activities takes place along the coast including walking, camping, sea angling, bird watching, water sports (water-skiing, sailing, windsurfing and canoeing) and general use of amenity beaches. Bird watching is particularly popular at Druridge Bay where there is a Country Park and a number of Nature Reserves. As well as attracting a large number of day trippers, a sizable population of summer visitors stay in caravan sites and other accommodation along the coast.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

Head, Natura 2000 and Ramsar Team, Department for Environment, Food and Rural Affairs,
European Wildlife Division, Zone 1/07, Temple Quay House, 2 The Square, Temple Quay, Bristol,
BS1 6EB

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Site Designations Manager, English Nature, Sites and Surveillance Team, Northminster House,
Northminster Road, Peterborough, PE1 1UA, UK

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

Site-relevant references

- Anderson, N (1989) *A report on the number and distribution of waders and wildfowl on Northumberland coast*
- Anon. (1997) *Monitoring the effects of a new sea outfall at Cambois on the invertebrate fauna*. (Contractor: University of Durham). Interim report to Northumbria Water, Durham
- Barne, JH, Robson, CF, Kaznowska, SS, Doody, JP & Davidson, NC (eds.) (1995) *Coasts and Seas of the United Kingdom. Region 5 North-east England: Berwick-upon-Tweed to Filey Bay*. Joint Nature Conservation Committee, Peterborough (Coastal Directories Series)
- Bennett, TL & Foster-Smith, JL (1998) Chapter 5. South-east Scotland and north-east England (Dunbar to Bridlington) (MNCR Sector 4). In: *Benthic marine ecosystems of Great Britain and the north-east Atlantic*, ed. by K. Hiscock, 123-154. Joint Nature Conservation Committee, Peterborough. (Coasts and Seas of the United Kingdom. MNCR series)
- Brazier, DP, Davies, J, Holt, RHF & Murray, E (1998) *Marine Nature Conservation Review Sector 5. South-east Scotland and north-east England: area summaries*. Joint Nature Conservation Committee, Peterborough (Coasts and seas of the United Kingdom. MNCR series)
- Doody, JP, Johnston, C & Smith, B (1993) *Directory of the North Sea coastal margin*. Joint Nature Conservation Committee, Peterborough
- Hagemeijer, EJM & Blair, MJ (eds.) (1997) *The EBCC atlas of European breeding birds: their distribution and abundance*. Poyser, London
- Huddart, D & Glasser, NF (2002) *Quaternary of northern England*. Joint Nature Conservation Committee, Peterborough (Geological Conservation Review Series, No. 25)
- Lloyd, C, Tasker, ML & Cartridge, K (1991) *The status of seabirds in Britain and Ireland*. Poyser, London
- McLeod, CR, Yeo, M, Brown, AE, Burn, AJ, Hopkins, JJ & Way, SF (eds.) (2004) *The Habitats Directive: selection of Special Areas of Conservation in the UK*. 2nd edn. Joint Nature Conservation Committee, Peterborough. www.jncc.gov.uk/SACselection
- Musgrove, AJ, Pollitt, MS, Hall, C, Hearn, RD, Holloway, SJ, Marshall, PE, Robinson, JA & Cranswick, PA (2001) *The Wetland Bird Survey 1999–2000: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge. www.wwt.org.uk/publications/default.asp?PubID=14

- Radley, GP (1994) *Sand dune vegetation survey of Great Britain: a national inventory. Part 1: England*. Joint Nature Conservation Committee, Peterborough
- Stone, BH, Sears, J, Cranswick, PA, Gregory, RD, Gibbons, DW, Rehfisch, MM, Aebischer, NJ & Reid, JB (1997) Population estimates of birds in Britain and in the United Kingdom. *British Birds*, **90**(1), 1-22
- Stroud, DA, Chambers, D, Cook, S, Buxton, N, Fraser, B, Clement, P, Lewis, P, McLean, I, Baker, H & Whitehead, S (eds.) (2001) *The UK SPA network: its scope and content. Volume 3: Site accounts*. Joint Nature Conservation Committee, Peterborough www.jncc.gov.uk/UKSPA/default.htm
- Stroud, DA, Mudge, GP & Pienkowski, MW (eds.) (1990) *Protecting internationally important bird sites: a review of the EEC Special Protection Area Network in Great Britain*. Nature Conservancy Council, Peterborough
- Thomas, GJ (1982) Breeding terns in Britain and Ireland, 1975–79. *Seabird report*, **6**, 59–69
- Thompson, KR, Brindley, E & Heubeck, M (1998) *Seabird numbers and breeding success in Britain and Ireland, 1997*. Joint Nature Conservation Committee, Peterborough (UK Nature Conservation, No. 22)

Please return to: **Ramsar Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • email: ramsar@ramsar.org

NATURA 2000 – STANDARD DATA FORM

Special Areas of Conservation under the EC Habitats Directive (includes candidate SACs, Sites of Community Importance and designated SACs).

Each Natura 2000 site in the United Kingdom has its own Standard Data Form containing site-specific information. The data form for this site has been generated from the Natura 2000 Database submitted to the European Commission on the following date:

22/12/2015

The information provided here, follows the officially agreed site information format for Natura 2000 sites, as set out in the [Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011](#) (2011/484/EU).

The Standard Data Forms are generated automatically for all of the UK's Natura 2000 sites using the European Environment Agency's Natura 2000 software. The structure and format of these forms is exactly as produced by the EEA's Natura 2000 software (except for the addition of this coversheet and the end notes). The content matches exactly the data submitted to the European Commission.

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

Further technical documentation may be found here
http://bd.eionet.europa.eu/activities/Natura_2000/reference_portal

As part of the December 2015 submission, several sections of the UK's previously published Standard Data Forms have been updated. For details of the approach taken by the UK in this submission please refer to the following document:
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

More general information on Special Areas of Conservation (SACs) in the United Kingdom is available from the [SAC home page on the JNCC website](#). This webpage also provides links to Standard Data Forms for all SACs in the UK.

Date form generated by the Joint Nature Conservation Committee
25 January 2016.



NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE UK0030140
SITENAME Durham Coast

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- [2. SITE LOCATION](#)
- [3. ECOLOGICAL INFORMATION](#)
- [4. SITE DESCRIPTION](#)
- [5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES](#)
- [6. SITE MANAGEMENT](#)

1. SITE IDENTIFICATION

1.1 Type B	1.2 Site code UK0030140	Back to top
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1.3 Site name

Durham Coast

1.4 First Compilation date 2001-03	1.5 Update date 2015-12
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1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee
Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:

Date site proposed as SCI:	2001-03
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2005-04
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude

-1.292777778

Latitude

54.75888889

2.2 Area [ha]:

389.61

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code

Region Name

UKC1

Tees Valley and Durham

2.6 Biogeographical Region(s)

Atlantic (100.0
%)

3. ECOLOGICAL INFORMATION

3.1 Habitat types present on the site and assessment for them

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Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A B C D	A B C		
						Representativity	Relative Surface	Conservation	Global
1230 			119.22		G	B	C	A	B
2130 	X		10.13		G	D			

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

4. SITE DESCRIPTION

4.1 General site character

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Habitat class	% Cover
N10	5.0
N05	31.0
N01	21.0
N04	43.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: limestone, sedimentary, basic, nutrient-rich 2 Terrestrial: Geomorphology and landscape: lowland, coastal 3 Marine: Geology: clay, limestone/chalk, sedimentary 4 Marine: Geomorphology: intertidal rock, cliffs

4.2 Quality and importance

Vegetated sea cliffs of the Atlantic and Baltic coasts for which this is considered to be one of the best areas in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i o b]
H	J02		B
H	I01		B
H	G05		I
H	K01		I
H	A08		B

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,

T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions

i = inside, o = outside, b = both

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i o b]
H	B02		I
H	A02		I
H	D05		I
H	A03		I

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

<http://publications.naturalengland.org.uk/category/6490068894089216>

<http://publications.naturalengland.org.uk/category/3212324>

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0	UK01	15.3		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☒	Yes	Name: Durham Coast: The Castle Eden Dene National Nature Reserve (NNR) Management Plan provides management information related to this site. This is available from Natural England. <u>Link:</u> _____
☐	No, but in preparation	
☐	No	

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the [official European Union guidelines for the Standard Data Form](#). The relevant page is shown in the table below.

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	Designated Special Protection Area	53
B	SAC (includes candidates Special Areas of Conservation, Sites of Community Importance and designated SAC)	53
C	SAC area the same as SPA. Note in the UK Natura 2000 submission this is only used for Gibraltar	53

3.1 Habitat representativity

CODE	DESCRIPTION	PAGE NO
A	Excellent	57
B	Good	57
C	Significant	57
D	Non-significant presence	57

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippophila rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion roburi-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	15%-100%	58
B	2%-15%	58
C	< 2%	58

3.1 Conservation status habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global grade habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	15%-100%	62
B	2%-15%	62
C	< 2%	62
D	Non-significant population	62

3.2 Conservation status species (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' Or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Assemblages types

CODE	DESCRIPTION	PAGE NO
WATR	Non breeding waterfowl assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Scree, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic resources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK02	Marine Nature Reserve	67
UK04	Site of Special Scientific Interest (UK)	67

NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

☐	☐	☐	☐	☐	☐	☐	☐
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1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	
date confirmed as SCI	
date site classified as SPA	200002
date site designated as SAC	

2. Site location:

2.1 Site centre location

longitude	latitude
01 35 18 W	55 27 58 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK112	Durham	5.00%
UK131	Northumberland	70.00%
UK132	Tyne and Wear	25.00%

2.6 Biogeographic region

☐
Alpine

☒
Atlantic

☐
Boreal

☐
Continental

☐
Macaronesia

☐
Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment

3.2 Annex I birds and regularly occurring migratory birds not listed on Annex I

		Population				Site assessment			
		Resident	Migratory			Population	Conservation	Isolation	Global
Code	Species name		Breed	Winter	Stage				
A169	<i>Arenaria interpres</i>			1739 I		B		C	
A148	<i>Calidris maritima</i>			787 I		C		C	
A195	<i>Sterna albifrons</i>		40 P			C		C	

4. Site description:

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	2.5
Shingle. Sea cliffs. Islets	97.0
Inland water bodies (standing water, running water)	
Bogs. Marshes. Water fringed vegetation. Fens	
Heath. Scrub. Maquis and garrigue. Phygrana	
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	0.5
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Boulder, Clay, Igneous, Limestone, Limestone/chalk, Metamorphic, Mud, Sand, Sandstone, Sandstone/mudstone, Sedimentary, Shingle

Geomorphology & landscape:

Cliffs, Coastal, Estuary, Intertidal rock, Intertidal sediments (including sandflat/mudflat), Open coast (including bay), Pools

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC)

During the breeding season the area regularly supports:

<i>Sterna albifrons</i> (Eastern Atlantic - breeding)	1.7% of the GB breeding population 5 year peak means 1992/3-1996/7
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ARTICLE 4.2 QUALIFICATION (79/409/EEC)

Over winter the area regularly supports:

<i>Arenaria interpres</i> (Western Palearctic - wintering)	2.6% of the East Atlantic Flyway population 5 year peak means 1992/3-1996/7
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<i>Calidris maritima</i> (Eastern Atlantic - wintering)	1.6% of the East Atlantic Flyway population 5 year peak means 1992/3-1996/7
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4.3 Vulnerability

Little terns are vulnerable to disturbance by tourists in the summer causing reduced breeding success. The National Trust employs wardens each summer to protect the little tern colony at Beadnell Bay.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK04 (SSSI/ASSI)	100.0

APPENDIX B

Report Conditions

Durham Wildlife Services Ltd

REPORT CONDITIONS

Foreshore, South Shields

This report is produced solely for the benefit of South Tyneside Council and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to Durham Wildlife Services. In time improved practices, fresh information or amended legislation may necessitate a re-assessment. Opinions and information provided in this report are on the basis of Durham Wildlife Services using due skill and care in the preparation of the report.

This report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times.

This report is limited to those aspects reported on, within the scope and limits agreed with the client under our appointment. It is necessarily restricted and no liability is accepted for any other aspect. It is based on the information sources indicated in the report. Some of the opinions are based on unconfirmed data and information and are presented as the best obtained within the scope for this report.

Reliance has been placed on the documents and information supplied to Durham Wildlife Services by others but no independent verification of these has been made and no warranty is given on them. No liability is accepted or warranty given in relation to the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report.

Whilst skill and care have been used, no investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather related conditions.

Although care is taken to select monitoring and survey periods that are typical of the environmental conditions being measured, within the overall reporting programme constraints, measured conditions may not be fully representative of the actual conditions. Any predictive or modelling work, undertaken as part of the commission will be subject to limitations including the representativeness of data used by the model and the assumptions inherent within the approach used. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions.

The potential influence of our assessment and report on other aspects of any development or future planning requires evaluation by other involved parties.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Durham Wildlife Services accept no liability for issues with performance arising from such factors

February 2008