

South Tyneside Local Plan

Habitat Regulation Assessment: Strategic Land Review

Screening

South Tyneside Local Plan



South Tyneside Council

Jul 2017

[Blank Page – inside front cover]

Contents

	Page
1. Introduction	1
2. What is a Habitat Regulation Assessment (HRA)?	2
3. HRA Methodology Overview	5
4. Stage One – South Tyneside HRA SLR Screening: Introduction	7
5. Stage One - South Tyneside HRA SLR Screening: Identification of and Information Gathering for European Sites	9
6. Stage One - South Tyneside HRA SLR Screening: Identification of Impact Pathways	15
7. Stage One - South Tyneside HRA SLR Screening: Analysis of SLR Options	21
8. Stage One - South Tyneside HRA SLR Screening: Analysis of Evidence Base	24
9. Stage One - South Tyneside HRA SLR Screening: Screening of SLR Sites	41
	Page
Appendices:	
A. Durham Coast SAC Citation, Conservation Objectives and Natura 2000 Single Data Form	20
B. Northumbria Coast SPA Citation, Conservation Objectives and Natura 2000 Single Data Form	24
C. APIS Data – Air pollution vulnerabilities: Durham Coast SAC and Northumbria Coast SPA	28
D. Other Plans and Projects – In combination assessment	31
E. Annex E -Survey Site Assessments – Visitor and Non-breeding Bird Survey Summaries	62
F. Preliminary Screening for Likely Significant Effects of the SLR (either alone or in-combination) – Site by Site Analysis	72

Local Plan -indicative structure and summary timetable:

- **South Tyneside Local Plan** development plan document (DPD) – bringing together our LDF development plan documents, plus covering the loss of the former Regional Spatial Strategy and the Government's thinning out of national planning policy. This DPD will also provide a clear strategic context for any community-initiated neighbourhood planning— adoption date to be confirmed;
- **International Advanced Manufacturing Park Area Action Plan (AAP)** - joint development plan document by Sunderland City Council and South Tyneside Council in support of the Sunderland and South Tyneside City Deal proposal for a strategic employment site north of Nissan - prepared partly in parallel with the Local Plan DPD above- adoption autumn 2017;
- **Community Infrastructure Levy (CIL)** - tariff-based charging schedule for requiring planning contributions from developers towards the part-funding of the provision and maintenance of necessary strategic and local infrastructure projects - date to be confirmed.

Any community-initiated **neighbourhood plans** will also form part of the statutory development plan for those areas of the borough.

Supporting non-statutory advisory guidance in **supplementary planning documents** will be reviewed as necessary.

1. Introduction

- 1.1 It is a requirement of Habitat Regulations that Local Plans are subject to a Habitat Regulations Assessment (HRA). The purpose of a HRA is to assess the potential impacts of a plan against the conservation objectives of European sites - Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar Sites.
- 1.2 The purpose of this document is to screen all green and amber sites in the Strategic Land Review (SLR) for likely significant effects to the European sites (either alone or in-combination with other plans and projects). This process will ensure that the potential effects on European Sites from the South Tyneside Local Plan are given full consideration throughout the planning process.

South Tyneside's Local Plan

- 1.3 South Tyneside Council completed a full suite of statutory LDF development plan documents in April 2012. However, to reflect planning reforms through the Localism Act (2011) and the National Planning Policy Framework (NPPF), (March 2012), South Tyneside Council is preparing a new Development Plan called the Local Plan.
- 1.4 The Local Plan will be the statutory development plan for the borough. It will set out the spatial policies, land use designations and site allocations against which all planning applications and development proposals will be assessed. Our new Local Plan is currently being prepared, and will cover at least a 15-year plan period from the time it's finally adopted.
- 1.5 The Strategic Land Review (SLR) considers the potential suitability of land all across South Tyneside for meeting those future development needs. It assesses all possible site options including previously-developed 'brownfield' sites as well as previously-undeveloped 'greenfield' land and Green Belt land.
- 1.6 In addition to the Habitats Regulations Assessment (HRA), the Local Plan will be subjected to a Sustainability Appraisal. The SA fulfils the requirement for a Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA), a requirement of the Strategic Environmental Assessment Directive EC/2001/42 (SEA Directive). An initial Sustainability Appraisal Scoping Report was produced and consulted upon in October 2013.

Article 6 (3) of the Habitats Directive (92/43/EEC):

'Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. [...], the competent national authorities shall agree to the plan or project only after ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.'

Article 6 (4) of the Habitats Directive (92/43/EEC):

'If in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the member states shall take all compensatory measures necessary to ensure that overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or priority species, the only considerations which may be raised are those relating to human health or public safety, of beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.'

(1) Council Directive 92/43/EEC, 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, Official Journal L 206, p. 0007 - 0050

The Conservation of Habitats and Species Regulations 2010 (as amended) - Regulation 61:

A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which –

- (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and
- (b) is not directly connected with or necessary to the management of that site, must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.

(2) Conservation of Habitats and Species Regulations 2010, SI 2010 No. 490

2. What is a Habitat Regulation Assessment (HRA)?

- 2.1 The following chapters set out the baseline information and evidence base required to inform this HRA of the SLR stage of the South Tyneside Local Plan.
- 2.2 HRA is a process which seeks to identify 'likely significant effects' resulting from a land-use plan or project which could potentially impact on the conservation objectives of one or more European Site. It is a procedure which must be undertaken by relevant plans or projects, whose implementation may impact upon designated European Sites. HRA is a requirement of both European and UK legislation and seeks to ensure that the protection and integrity of European Sites is part of the planning process.

Habitats Directive and Natura 2000

- 2.2 European Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna, also known as the Habitats Directive; provides legal protection for habitats and species of European importance. Each European site has a set of Conservation Objectives which identify the qualifying habitats and species and define how they will be protected and managed. It requires Member States to take measures to maintain or restore natural habitats and protected species at a favourable conservation status.
- 2.3 The Habitats Directive establishes a network of sites known as Natura 2000; this network aims to ensure the long-term survival of Europe's most valuable and threatened species and habitats. Natura 2000 sites include:
 - **Special Protection Areas (SPA)** -classified under the EC Birds Directive (2009/147/EC), it includes areas identified as being of international importance for the breeding, feeding, wintering or the migration of rare and vulnerable species of birds.
 - **Special Areas of Conservation (SAC)** - designated under the EC Habitats Directive (92/43/EEC), it provides increased protection to a variety of wild animals, plants and habitats.
 - **Ramsar sites**- international wetland sites designated under the Ramsar Convention 1971.
- 2.4 The Habitats Directive imposes regulatory duties on public bodies to ensure that sites are protected from plans and projects. Article 6 (3) and (4) of the Habitats Directive sets out the decision making tests for plans or projects affecting Natura 2000 sites. Article 6 (3) of the Habitats Directive establishes the requirement for an Appropriate Assessment. (See margin text) (1).

- (3) English Nature, (1999), Habitat Regulation Guidance Note 3: The Determination of Likely Significant Effect under The Conservation (Natural Habitat &c) Regulations 1994.
- (4) ECJ. 2004. Case C0127/02: landelijke Vereniging tot Behoud van de Waddenzee, Nederlandse Vereniging tot Berschermin van Vogels vs. Staatssecretaris van Landbouw, Natuurbeheer en Visserij (the Waddenzee ruling)
- (5) Dodd, A.M, Cleary, B.E, Dawkins, J.S, Byron, H.J, Plaframan, L.J and Williams, G.M, (2007), The Appropriate Assessment of Spatial Plans in England: A guide to why, when and how to do it', The RSPB

UK Legislation

2.5 The Habitats Directive has been transposed into UK legislation through The Conservation of Habitats and Species Regulations 2010 (as amended)(2); also known as the Habitat Regulations. The requirements under which a development plan should be subject to appropriate assessments are set out in Regulation 61 (see margin text). The National Planning Policy Framework (NPPF) also refers to the need for Local Plans to be subject to HRA, where there is a likely significant effect on a European wildlife site and to assist in good decision making.

Likely Significant Effect (LSE)

2.7 The HRA is an iterative process which seeks to identify the likely significant effects (LSE) of a plan or project, alone and in-combination. A likely significant effect can be defined as:

‘...any effect that may reasonably be predicted as a consequence of a plan or project that may affect the conservation objectives of the features for which the site was designated, but excluding trivial or inconsequential effects.’ (3)

2.8 The inherent notion of the precautionary principle requires that likely significant effects relate to any impact which is ‘possible’ not just ‘probable’. This was established through the ruling made by the European Court of Justice Waddenzee ruling (C-127/02); which states that competent authorities can only authorise a plan or project once they are certain that there is no reasonable scientific doubt as to the potential for likely significant effects (4).

2.9 For a significant effect to occur there must be a link between the project or plan and the qualifying features of the site, which could lead to a significant effect. The RSPB guidance ‘The Appropriate Assessment of Spatial Plans in England: A guide to why, when and how to do it’ (2007)(5); advises that a significant effect is triggered when:

- There is a **probability** or **risk** of a plan or project having a significant effect on a European site;
- The plan or project is likely to **undermine** the European sites **conservation objectives**;
- A significant effect **cannot be excluded** on the basis of objective information.

Strategic Environmental Assessment (SEA) and Sustainability Appraisal (SA)

2.10 European Directive 2001/42/EC, 'The Environmental Assessment of Plans, Programmes and Regulations' (Strategic Environmental Assessment (SEA) Regulations) requires Local Planning Authorities to undertake a SEA on all land use and spatial plans. This directive is transposed into UK legislation through 'The Planning and Compulsory Purchase Act, 2004', which imposes a statutory duty for plans to be subject to a Sustainability Appraisal (SA). Both assessments evaluate the environmental, social and economic impacts of a plan or policy.

2.11 The HRA is closely linked to the SEA/SA, with many guidance documents recommending that both assessments are undertaken together, throughout the plan preparation process to minimise evidence gathering. However, the HRA and SEA/SA have very different legal requirements which must be met, as well as being reported separately and being clearly distinguishable.

3. Habitat Regulation Assessment Methodology Overview

3.1 There is no definitive methodology for the undertaking of a Habitat Regulation Assessment. However, it is widely accepted that the HRA should be undertaken through a four step process. These stages are shown in Fig 3.1. The assessment undertaken as part of a HRA should be transparent and based on evidence. Inherent in the Habitats Directive is the notion of the precautionary principle. This means that those undertaking a HRA for a land use plan, should be able to demonstrate that the plan or project will not have an effect on the sites integrity; if any uncertainty remains, then it must be assumed that there will be an adverse effect.



(6) 'The Habitats Regulations Assessment Handbook – England and Wales', DTA Publications, Tyldesley and Chapman (2013)

Figure 3.1: Stages in the HRA Process (6)

- 3.2 In the absence of a definitive methodology to assist in the undertaking of HRA, this assessment has been largely informed by 'The Habitats Regulations Assessment Handbook – England and Wales', DTA Publications, Tyldesley and Chapman (2013) (6). Additional guidance has been sought from the following publications:
- 'Appropriate Assessment of Plans', Levett-Therivel et al, (2006);
 - 'The Appropriate Assessment of Spatial plans in England: A guide to why, when and how to do it', RSPB, (2007)

4. Stage One – South Tyneside HRA SLR Screening: Introduction

4.1 Stage one of the HRA process is the screening of the relevant plan or project for likely significant effects (LSE) (either alone or in-combination with other plans and projects). The screening process acts as a risk assessment to determine whether the subsequent more detailed stage of assessment which is known as Appropriate Assessment, is required.

4.2 The Council has produced a document named Habitat Regulation Assessment: Issues & Options Screening, which was consulted upon in May-June 2016. This document identified that under the Habitat Directive and Habitat Regulations, plans and projects are required to be screened for a HRA, unless the whole of the plan or project is directly connected to the management of a European site for nature conservation purposes. Therefore, it is necessary for the plan to undergo the remaining screening stages (as identified in Figure 4.) followed by an Appropriate Assessment, if required.

4.3 The current stage of the Local Plan preparation process is the Strategic Land Review (SLR) which involves the consideration of a range of strategic and sites options. These options could generate different effects on the qualifying features; therefore each alternative option will be screened as part of the HRA process. The purpose of screening the Strategic Land Review is to identify:

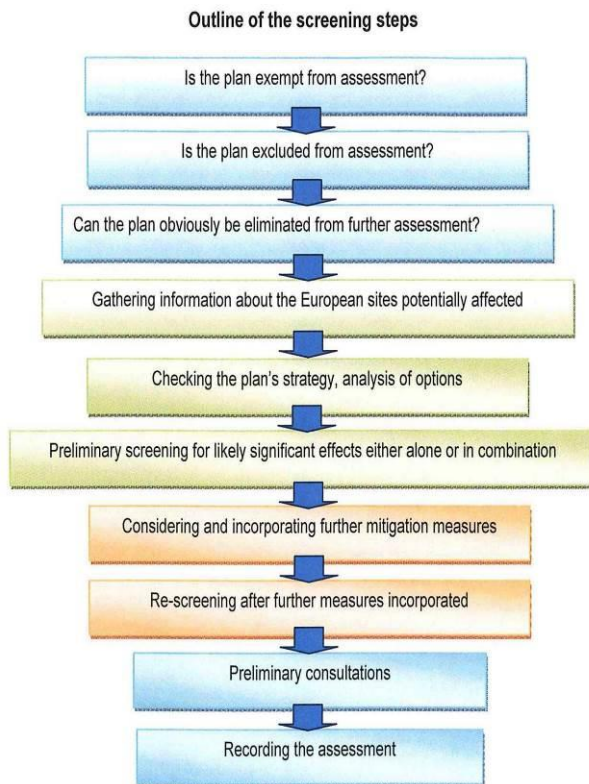
- Those Natura 2000 sites that are not affected, meaning that no further assessment is required;
- Where there is a possible effect but where modification or removal of options, policies and or allocations within the Local Plan would avoid the effect; and
- Where an effect on Natura 2000 sites is probable and where Appropriate Assessment is therefore required.

HRA Screening Methodology

4.4 The screening stage is the first step in the HRA process. The role of screening is to identify which parts of the plan could possibly result in LSE occurring to a European Protected Site and to determine whether an Appropriate Assessment will be required. The screening stage is not a requirement of the Habitat Directive or Habitat Regulations, however, it is considered to be an accepted approach to the early stage of a HRA, which can be repeated throughout the plan preparation process. The steps within the screening stage of the HRA are shown in Fig 3.2.

4.5 If the screening stage concludes that the plan or project will not result in any likely significant effects, then no further assessment is necessary. Should the screening stage identify any significant impact or be uncertain as to the potential impact on the European site, a Stage 2 Appropriate Assessment will be required. Mitigation measures can be introduced as part of the screening stage. If it is considered that the proposed measures are

Figure 4.1: Stage One: Screening Steps (6)



Extract from *The Habitats Regulations Assessment Handbook*, www.dtapublications.co.uk
© DTA Publications Limited (September) 2013 all rights reserved
This work is registered with the UK Copyright Service

robust enough to prevent LSE occurring, then an Appropriate Assessment can be avoided, as impacts could be screened out.

- 4.6 The collating of evidence on the plan, the relevant European sites and the potential likely significant effects is an important stage of the HRA. The collation of this information early in the development of the plan will help to identify those options which may impact upon European Protected Sites, and will allow alternative options or mitigation measures to be considered early in the plan process, even if no formal assessment can yet be undertaken.

Other Plans and Projects considered for in combination effects

- Shoreline Management Plan 2 River Tyne to Flamborough Head (2007)
- Northumbria River Basin Management Plan (2009)
- Keep Tyne and Wear Moving—Third Local Transport Plan (LTP3) for Tyne & Wear—Strategy 2011-2021
- More and Better Jobs: A Strategic Economic Plan for the North East (2014)
- Joint Local Aggregates Assessment for County Durham, Northumberland and Tyne & Wear (2013)
- South Tyne & Wear Waste Management Partnership – joint municipal waste management strategy review (2012)
- A19 Testo Junction Improvements
- Sunderland Draft Core Strategy (Revised Preferred Options) 2013
- Planning for the Future Core Strategy & Urban Core Plan for Gateshead & Newcastle upon Tyne 2010-2030 (2015)
- North Tyneside Local Plan (2017)
- South Shields 365 Master Plan
- Draft International Advanced Manufacturing Park Area Action Plan (2017).

Preliminary Screening for Likely Significant Effects either alone or in-combination

- 4.7 Article 6(3) of the Habitats Directive (92/43/ECC) states that:

*‘Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually **or in combination with other plans and projects**, shall be subject to appropriate assessment’.*

- 4.8 The in combination assessment is important to be able to ascertain whether or not the effects of the subject plan would exacerbate any existing conditions or if the introduction of the plan, alongside existing plans and projects would result in a new cumulative effect which could impact upon the conservation objectives of the European sites and their qualifying features.
- 4.9 In addition, those elements which may have been screened out as not having an affect alone should also be considered in combination as the cumulative effect of plans and projects may lead to a likely significant effect. If an in combination effect is found then an Appropriate Assessment would be required.
- 4.10 A full description of plans and projects which have been considered for potential in combination effects is provided in Annex D. The following plans and projects have been identified for consideration for in combination effects for the HRA.
- More and Better Jobs: A strategic economic plan for the North East (2014)
 - Sunderland draft Core Strategy (Revised Preferred Options) (2013)
 - Sunderland Growth Options consultation documents (2016)
 - South Sunderland Growth Area draft SPD (2016)
 - North Tyneside Local Plan (2017)
- 4.11 The above list of projects will continue to be reviewed and updated throughout the South Tyneside Local Plan preparation process.

5. Stage One - South Tyneside HRA SLR Screening: Identification and Description of European Sites

5.1 Information is required on European sites in order to ensure the HRA has a complete understanding of the potential LSE and the risk of them occurring (6). The Habitat Regulations require the consideration of all Natura 2000 sites that have potential to be impacted by the plan or project. The effects of a plan could impact upon sites within the plan boundary, however, the nature of the plans impacts may not only be confined to these sites and may also effect Natura 2000 sites beyond the boundary of the plan. It is therefore necessary to identify which Natura 2000 sites should be included within this HRA.

Identification of European Sites: European Sites within South Tyneside

5.2 Within South Tyneside there are two designated Natura 2000 sites. These sites are:

- Durham Coast Special Area of Conservation
- Northumberland Coast Special Protection Area and Ramsar site

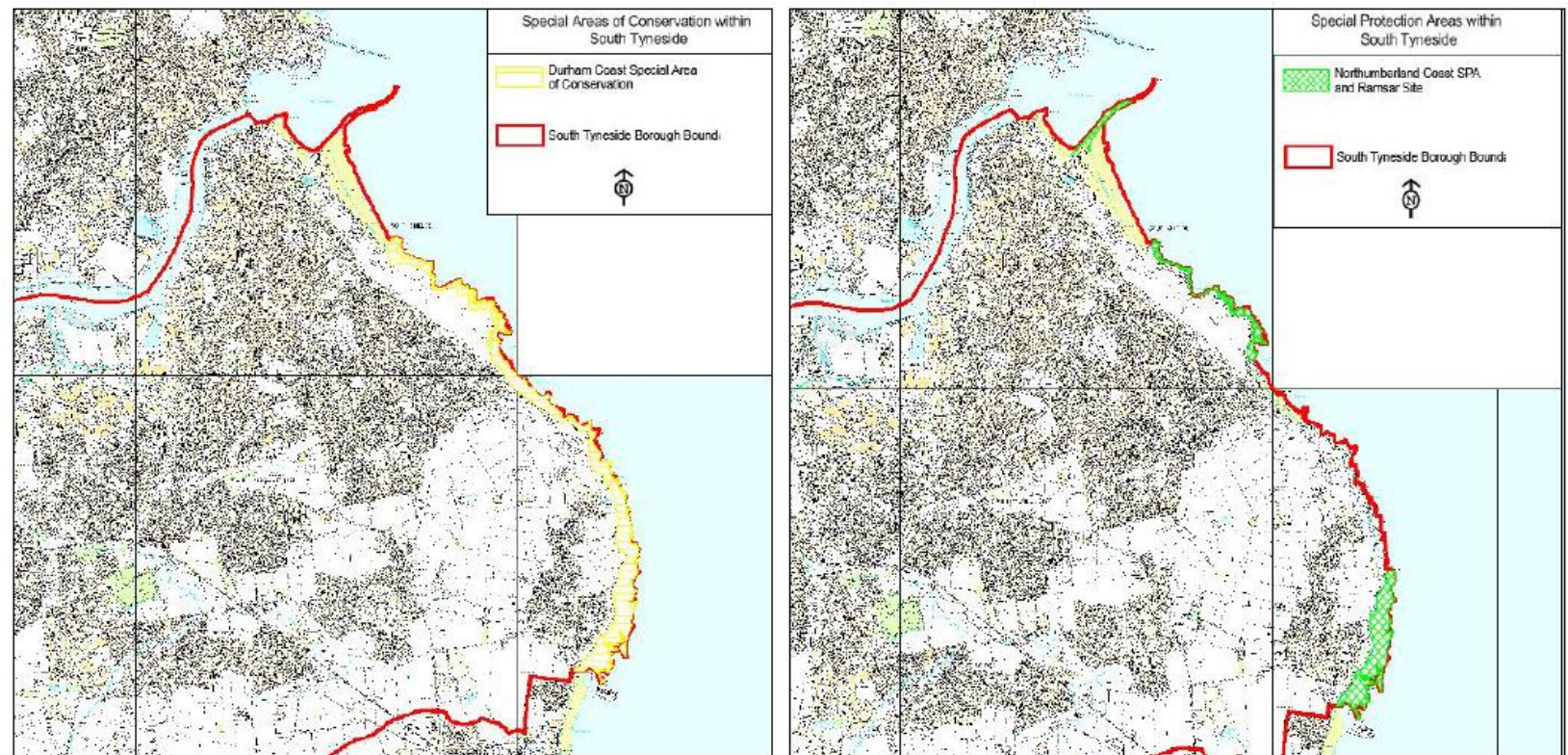


Figure 5.1: Identification of European Sites: European Sites outside of South Tyneside

5.3 Natura 2000 sites within 15km of the South Tyneside boundary have been screened to determine whether they should be included in the South Tyneside Local Plan HRA. A 15km buffer to identify neighbouring Natura 200 sites has been widely used by other HRA's and is regarded as best practice.

5.4 Fig 5.2 identifies that the Northumbria Coast SPA and Durham Coast SAC both extend along the coast beyond the boundaries of South Tyneside into the neighbouring authorities of North Tyneside, Sunderland and County Durham.

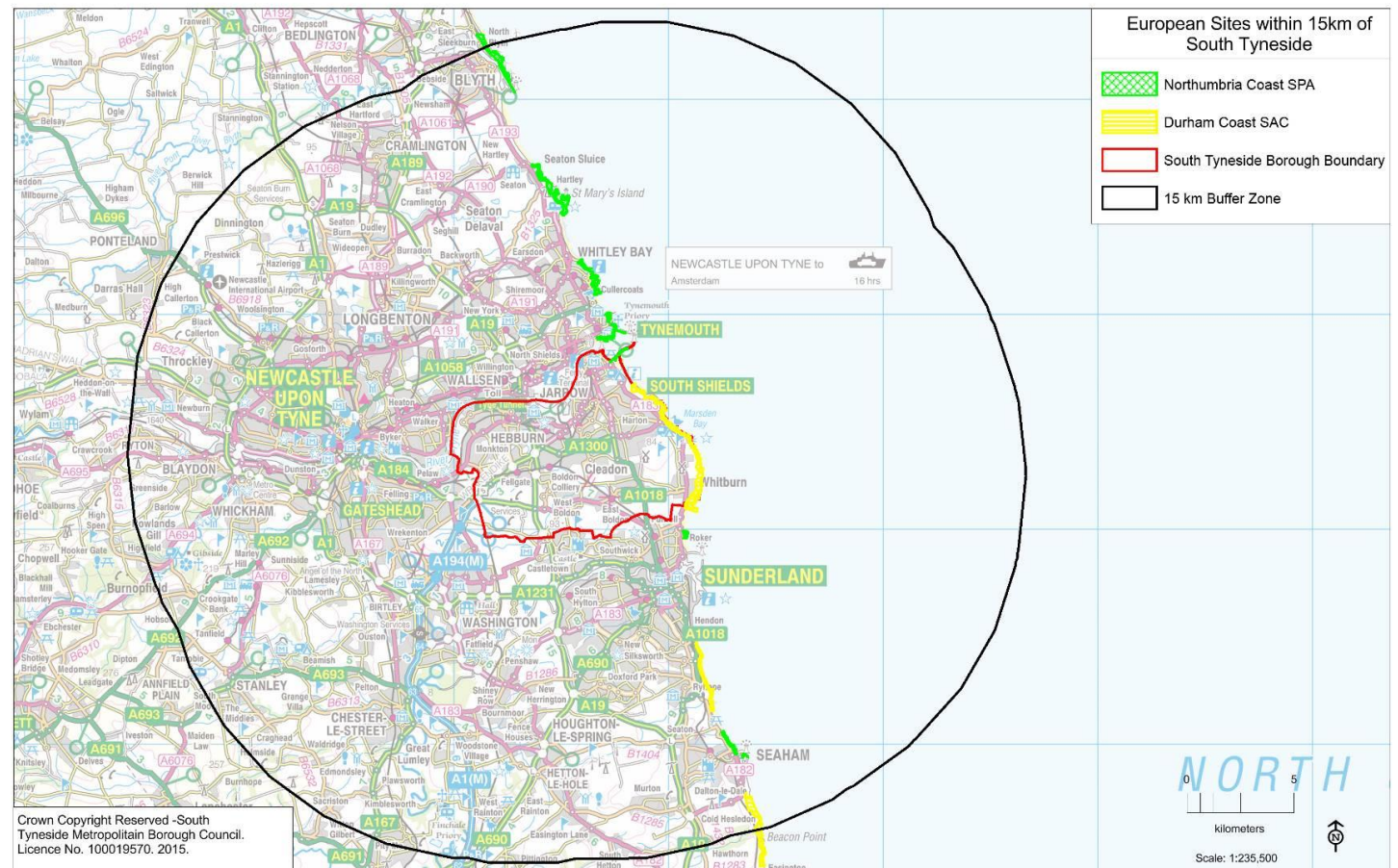


Figure 5.2: Natura 2000 sites within 15km of the South Tyneside boundary

5.5 The qualifying features and conservation objectives for the Durham Coast SAC and Northumbria Coast SPA and Ramsar site are listed in Table 5.1. Further information is provided in Annex A and B.

Table 5.1 Qualifying Features and Conservation Objectives of Durham Coast SAC and Northumbria Coast SPA (8)

Site	Qualifying Features	Key Sub-feature	Description	Conservation Objectives
Durham Coast SAC	Habitat 1230: Vegetated sea cliffs of the Atlantic and Baltic coasts	Non applicable	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.	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats; • The structure and function (including typical species) of qualifying natural habitats; The supporting processes on which the qualifying natural habitats rely.
Northumbria Coast SPA	During the Breeding Season: Little Tern <i>Sterna albifrons</i> Overwintering: Purple Sandpiper <i>Calidris maritima</i> Turnstone <i>Arenaria interpres</i>	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	Little Tern - 40 pairs representing at least 1.7% of the breeding population in Great Britain (5 year peak mean 1992/3 - 1996/7) Purple Sandpiper - 787 individuals representing at least 1.6% of the wintering Eastern Atlantic - wintering population (5 year peak mean 1992/3 - 1996/7) Turnstone - 1,739 individuals representing at least 2.6% of the wintering Western Palearctic - wintering population (5 year peak mean 1992/3 - 1996/7)	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring; • The extent and distribution of the habitats of the qualifying features; • The structure and function of the habitats of the qualifying features; • The supporting processes on which the habitats of the qualifying features rely; • The population of each of the qualifying features, and, • The distribution of qualifying features within the site.

Site	Qualifying Features	Key Sub-feature	Description	Conservation Objectives
Northumbria Coast & Ramsar Site	Little tern , <i>Sterna albifrons</i> , Purple sandpiper , <i>Calidris maritima</i> Ruddy turnstone , <i>Arenaria interpres</i>	Species currently occurring at levels of national importance-breeding season: Great cormorant, <i>Phalacrocorax carbo</i> Black-legged kittiwake, <i>Rissa tridactyla</i> Arctic tern, <i>Sterna paradisaea</i> Species with peak counts in spring/autumn: European golden plover, <i>Pluvialis apricaria</i> Species with peak counts in winter: Common eider, <i>Somateria mollissima</i> Sanderling, <i>Calidris alba</i>	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. 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>.	N/A

5.6 It is also important to gain an understanding of the favourable conditions and the existing condition of the Durham Coast SAC and Northumbrian Coast SPA. The favourable conditions for each site are the qualities of the protected sites which should be protected or retained in order support the qualifying features. Table 5.2 sets out the favourable conditions for the two sites and their identified vulnerabilities.

5.7 Table 5.2 also sets out the existing condition of the SSSI's within both sites and specifically identifies those SSSI's within the administrative boundary of South Tyneside Council. The condition of the SSSI's is a useful means of understanding the condition of the wider SPA and SAC and could also help to identify any potential likely significant effects of the Local Plan. However, these conditions are a moment in time and do not reflect trends or might not be up-to-date, therefore need to be used in combination with other data.

Table 5. 2 Durham Coast SAC and Northumbria Coast SPA - Condition and Vulnerabilities (8) (10)

Natura 2000 Site	Favourable Conditions	Vulnerabilities	Condition Assessment of SSSI's in Designation	Condition Assessment of Component SSSI's within South Tyneside						
				Durham Coast SSSI						
				Units	Habitat	N2K designation		Area (ha)	Condition	Condition Threat Risk
SPA	SAC									
Durham Coast SAC	• No loss in habitat • Minimal disturbance • Open terrain – no reduction in views • Food availability – fish, crustaceans, worms, molluscs, sub-surface invertebrates & epibenthic invertebrates. • Retention of structures for high tide roosts	Vegetated sea cliffs range from vertical cliffs in the north with scattered vegetated ledges, to the Magnesian limestone grassland slopes of the south. Parts of the site are managed as National Nature Reserve, and plans provide for the non-interventionist management of the vegetated cliffs. The majority of the site is in public ownership and an agreed management plan is being developed to protect nature conservation interests.	41 SSSI's Units							
			75.6 % - Favourable Condition	South Pier and Rocks	Boundary and Linear Features	✓	✗	4.21	Favourable	Medium
			24.3% - Unfavourable Recovering	Sandhaven Beach	Littoral Sediment	✗	✗	24.94	Favourable	No identified threat
				Trow Point – Velvet Beds: Rocky Shore	Littoral Rock	✓	✓	11.36	Favourable	No identified threat
				Velvet Beds-Lizards Point: Rocky Shore	Littoral Rock	✗	✓	14.86	Favourable	No identified threat
Northumbria Coast SPA and Ramsar	• Minimal disturbance • Food availability – epibenthic invertebrates, marine fish, crustaceans, worms and molluscs. • No loss in habitat • Open ground with sparse vegetation and open terrain • Retention of structures for high tide roosts.	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.	56 SSSI Units	Lizard Point-Souter Point: Rocky Shore	Littoral Rock	✗	✓	16.74	Favourable	No identified threat
			Durham Coast 43 Units 93% Favourable 6.9% Unfavourable Recovering	Souter Point-Whitburn Steel: Rocky Shore	Littoral Rock	✓	✗	34.57	Favourable	No identified threat
			Cresswell & Newbiggin Shores 4 Units 100% Favourable	Trow Point-Velvet Beds Cliff	Neutral Grassland-Lowland	✗	✓	15.28	Favourable	No identified threat
			Castle Point to Cullernose Point 6 Units 100 % Favourable	Velvet Beds – Lizard Point: Cliff	Neutral Grassland - Lowland	✗	✓	2.76	Favourable	No identified threat
			Howick to Seaton 1 Unit 100% Favourable	Lizard Point – Souter Point: Cliff	Neutral Grassland-Lowland	✗	✓	2.88	Favourable	No identified threat
				Souter Point – Whitburn Steel: Cliff	Neutral Grassland - Lowland	✓	✓	13.39	Favourable	No identified threat

(10) Natural England.org.uk -
<http://designatedsites.naturalengland.org.uk/SearchCounty.aspx> (2015)

(11) 'Implications of recent site casework for the definition of SPA boundaries and the application of Habitats Regulation's,' RSPB, 2004 -
http://jncc.defra.gov.uk/pdf/sparswg_RSPBcaseworkscience_paper.pdf (2015)

Functional Land

- 5.8 Article 6 of the Habitats Directive sets out the protective measures required to be undertaken by member states with regard to qualifying species, European sites and their conservation objectives. However, it is often the case, particularly for SPA's - which the qualifying features for the site (birds) are not always found within the designated site. It is widely accepted that the requirements of Article 6 are to protect the qualifying features for which the European site is designated, regardless of whether the or not the qualifying feature is within the boundaries of the designated site (11). Areas outside of the designated site, which are proven to be used by qualifying features, are called 'functional land'. There is some concern that the loss of, or other impacts which may affect the quality or nature of functional land may have an adverse effect on birds, which could impact upon the conservation objectives of the SPA. Therefore, HRA should also consider areas of functional land, to ensure that any LSE on these sites would not result in a harmful impact upon the designated sites.

6. Stage One - South Tyneside HRA SLR Screening: Identification of Impact Pathways

- 6.1 It is important to understand how the impact of the plan may affect the identified European Sites and there functional land, through identifying 'Impact Pathways'. Impact Pathways are the links between potential changes resulting from plan policies and the European Protected Site's conservation objectives or features. A number of broad potential impact types have been identified that could potentially affect the Durham Coast SAC and Northumbria Coast SPA. These are:
- Air quality
 - Hydrology
 - Water quality
 - Climate Change
 - Habitat loss and fragmentation of habitats
 - Disturbance – recreational and urbanisation

Air Quality

- 6.2 Atmospheric pollution can adversely affect the natural environment and ecosystems in a number of ways, including reducing water quality and changing biodiversity. The main types of air pollutants in terms of their impact on vegetation and ecosystems are: Nitrogen Oxides (NO_x), Sulphur Dioxides (SO₂), Ozone (O₃) and ammonia (NH₃) (12). The main sources and the potential effects of these pollutants are shown in Table 6.1.
- 6.3 The Air Pollution Information System (APIS) provides information on pollutants and their impacts on habitats and species. APIS data identifies that the qualifying features of the Durham Coast SAC and Northumbrian Coast SPA are potentially vulnerable to nitrogen deposition, nitrogen oxide (NO_x) and ammonia (NH₃). The data shows that the current average levels of each pollutants are below the critical level for the habitat, and the impact on Ruddy Turnstone and Purple Sandpiper would be unlikely due to the dispersal of impacts across the species habitat. The APIS information is provided in Annex C. However, the potential impacts of the South Tyneside Local Plan with regard to air pollution should continue to be considered as part of the HRA process.

(12) Air Pollution Information System
www.apis.ac.uk (2015)

(13) Defra – [ukair.defra.gov.uk, http://uk-air.defra.gov.uk/assets/documents/What are the causes of Air Pollution.pdf](http://uk-air.defra.gov.uk/assets/documents/What_are_the_causes_of_Air_Pollution.pdf) (2015)

Pollutant	Description of main UK Sources	Potential effects on environment
Nitrogen Oxides (NO _x)	All combustion processes in air produce oxides of nitrogen (NO _x). Nitrogen dioxide (NO ₂) and nitric oxide (NO) are both oxides of nitrogen and together referred to as NO _x . Road transport is the main source, followed by the electricity supply industry and other industrial and commercial sectors.	High levels of NO _x can have an adverse effect on vegetation, including leaf or needle damage and reduced growth. Deposition of pollutants derived from NO _x emissions contribute to acidification and/or eutrophication of sensitive habitats leading to loss of biodiversity. NO _x also contributes to the formation of secondary particles and ground level ozone, both of which are associated with ill-health effects.
Sulphur Dioxides (SO ₂)	UK emissions are dominated by combustion of fuels containing sulphur, such as coal and heavy oils by power stations and refineries.	Potential damage to ecosystems at high levels, including degradation of chlorophyll, reduced photosynthesis, raised respiration rates and changes in protein metabolism. Deposition of pollution derived from SO ₂ emissions contribute to acidification of soils and waters and subsequent loss of biodiversity.
Ozone (O ₃)	Ozone is not emitted directly from any human made source. It arises from chemical reactions between various air pollutants, primarily NO _x and Volatile Organic Compounds (VOCs) initiated by strong sunlight.	Ground level ozone can cause damage to many plant species leading to loss of yield and quality of crops, damage to forests and impacts on biodiversity.
Ammonia (NH ₃)	Mainly derived from agriculture, primarily livestock manure/slurry management and fertilisers. A small proportion is derived from a variety of sources including transport and waste disposal.	Ammonia can lead to damage of terrestrial and aquatic ecosystems through deposition of eutrophying pollutants and through acidifying pollutants.

Table 6.1: Causes and effects of Air Pollution (13)

Hydrology

6.4 Changes to hydrology through increased flood or drought events could impact upon the qualifying features of the designated European sites. Increased housing and economic growth could potentially affect designated sites through increased abstraction of ground water supplies and increased flooding due to changes in areas of hard standing which could direct surface water run-off on to designated sites.

Water Quality

6.5 Poor water quality can have a negative impact on the environment and biodiversity; the effects are diverse and are dependent on the type of pollutant affecting the quality of the water:

- High levels of nitrogen or phosphorous (chemical nutrients) can result in eutrophication and the de-oxygenation of water bodies;

- Toxic chemicals and metals in the water body can result in significant detrimental effects to aquatic life and the wider eco-system;
- Thermal pollution caused by the discharge of warm water into a water body can lead to a decrease in oxygen supply.

6.6 In the UK water pollution is caused from a variety of sources, including:

- Transport;
- Construction and building;
- Waste water (leakage and misconnections within the sewage system);
- Run-off activities; and
- Discharge from contaminated land.

6.7 The South Tyneside Local Plan may increase the potential for water pollution through the increased demand on the existing sewage treatment network caused by an increased population and housing development; and also the potential for surface water run-off and contaminated land discharge.

Climate Change

6.8 The impacts of Climate Change could have a significant impact on habitats and biodiversity. Predicted increased temperatures and rainfall could impact upon species distribution and abundance and habitat connectivity. Warmer temperatures could affect the traditional migration patterns of migratory birds; this may lead to a decrease in the populations of over-wintering birds in the UK including the ruddy turnstone and purple sandpiper (14).

6.9 Climate change is also predicted to cause sea level rise and increase frequency of storms. These factors are likely to encourage coastal erosion of soft cliffs, including the magnesian limestone cliffs found in the Durham Coast SAC. Erosion is a natural process which helps to rejuvenate geological exposures and maintain the variety of plant species; however, it also leads to habitat loss and vegetation being destroyed. Accelerated coastal erosion attributable to climate change may exacerbate the potential for habitat loss. Furthermore, coastal protection measures, such as flood defences, may alter the natural coastal processes of the environment, including natural erosion and slumping which also helps to maintain the cliff face vegetation (15).

Habitat Loss and Fragmentation of Habitats

6.10 Development pressure could result in the loss of areas of designated sites or areas of functional land which contribute to maintaining the integrity of the European sites. Habitat fragmentation is the breaking up of habitats into smaller or more isolated areas which can affect the ability to support habitat dependant species, including the qualifying features of European sites.

(14) 'Biodiversity and Climate change – a summary of impacts in the UK', JNCC, 2010

(15) North East Biodiversity Forum,
<http://www.nebiodiversity.org.uk/biodiversity/habitats/coastalmarine/cliffs/>

- 6.11 Habitat loss and fragmentation maybe caused as a result of new developments, infrastructure or indirect impacts of construction. Such impacts would have a significant impact upon the conservation objectives of the European site.
- 6.12 Due to the coastal location of the designated European sites in South Tyneside it is unlikely that they will be affected by direct habitat loss from development in the South Tyneside Local Plan. However, consideration should be given to the importance of protecting areas of functional land from development pressures.

Disturbance – urbanisation and recreational

- 6.13 Increased populations and the proximity of housing developments to sensitive sites can create a range of potential affects; these are usually attributable to the impacts of urbanisation and recreational disturbance. Although the sources of each pathway are considered to be similar, the resulting impacts of each pathway are distinctly different. Urbanisation effects can include:
- Invasive plant species
 - Increased pet or pest predation
 - Litter and fly-tipping
 - Increased fire risk
- 6.14 The impacts of urbanisation could affect the composition of native species and the ecology of the designated site; this can be problematic for designations where the qualifying features include fauna including the Durham Coast SAC. Furthermore, the impacts of fly-tipping and fire can lead to habitat degradation or loss. Urbanisation also tends to increase the number of domestic cats in the vicinity of protected sites. Despite the majority of domestic cats being fed by owners, cats do frequently kill wild birds and mammals; in urban areas, the number of birds killed by domestic cats may be sufficient enough to negatively affect their population (16). The Thames Basin Heath SPA considered the link between domestic cats and bird predation and recommended a 400m exclusion zone for development around the SPA based on average cat predation distances and the ability to affectively mitigate the likely significant effect caused by cat predation (17).
- 6.15 Recreational disturbance effects are usually a result of visitor pressure on designated sites due to more frequent and longer visits by people and dog-walkers. Nature conservation sites close to residential areas tend to have more visitors who are accompanied by a dog (18). The vegetation in designated areas can be effected by trampling by walkers, cyclist and horses. Trampling can lead to physical damage to plants – reducing their ability to flower, soil compaction and nutrient loss which can affect the soils ability to support the species richness of the area. Furthermore, nutrient enrichment caused by dog fouling can

(16) 'Spatio-Temporal Variation in Predation by Urban Domestic Cats (*Felis catus*) and the Acceptability of Possible Management Actions in the UK', Thomas.R.L, Fellowes.M.D.E., Baker. P, PLOS ONE; Vol.7. Is. 11, (2012)

(17) Thames Basin Heath Special Protection Area Delivery Framework, Thames Basin Heaths Joint Strategic Partnership Board, 2009.

(18) 'Dogs, access and nature conservation', English Nature Research Reports No. 649, 2005

(19) 'A simple method for assessing the risk and disturbance to birds at coastal sites', Suffolk Coast and Heaths AONB, 2012'

(20) Recreational Disturbance at the Teesmouth and Cleveland Coast European Marine Site. Bird disturbance field work Winter 2011/2012', Linaker, R, 2012

also affect the natural fauna of the area by changing the mineral content of naturally low nutrient rich soils and can promote the introduction of invasive species (18).

- 6.16 Recreational disturbance caused by people and dogs can also result in effects on birds using protected sites to roost and feed. The presence of people and their activities has been shown to affect the behaviour of birds as they are often perceived as threats and can cause disturbance events (19).
- 6.17 Dog walking is an activity which is strongly linked to the disturbance of birds; especially when the dogs are off the lead. Birds tend to respond to dogs as if they were predators, even if the disturbance event is non-threatening (18). The effect of a disturbance event can cause the displacement of birds from their feeding or roosting sites. This reaction has an 'energy cost', which is particularly significant during winter when feeding opportunities maybe limited or the weather conditions maybe harsh (19). The longer term consequences of frequent disturbance events and energy expenditure could make the birds more vulnerable to predation, as well as affecting their ability to build fat reserves which are required to fuel migration towards breeding grounds. These impacts can have an impact on survival rates and the population of the species (20).
- 6.18 Every year the Pet Food Manufacturers Association (PFMA) commissions a Pet Population report, which looks in detail at pet ownership trends. The UK pet population of dogs stands at 8.5 million with 24% of households keeping dogs. However, the North East is found to have the highest level of regional dog ownership with 31% of households with dogs (2015-16 data) (22).
- 6.19 Noise can also lead to the disturbance of over-wintering birds, particularly if a development is situated close to important bird areas (such as feeding areas or roost sites). The effects of noise can lead to impacts on the birds' density at roosting sites and their demography. High noise levels can result in flight and energy expenditure, which could be costly to the bird, it is recommended that noise levels should be restricted to <69.9dB to minimise the risk of disturbance (21).

(21) 'Exploring behavioural responses to shorebirds to impulsive noise', (2010) Wright. M, Goodman. P, Cameron. T, Wildfowl, Wildfowl 7 Wetland Trust, 60:150-167.

(22) 'Pet Population Report', (2016) Pet Food Manufacturers Association (PFMA), available at <http://www.pfma.org.uk/regional-pet-population-2016>

Impact Pathway Summary

- 6.20 The broad potential impact types which have been identified that could potentially affect the Durham Coast SAC and Northumbria Coast SPA are summarised in the following table.

Impact Pathway	Considered as part of the HRA Process?	Comments
Air Quality	✓	Current levels of pollutants are below the critical level for habitats (including the SAC) and SPA linked birds. Potential impacts of the SLR with regard to air pollution will be considered.
Hydrology	✓	Increased development has potential to affect designated sites through increased abstraction and increased flood risk.
Water Quality	✓	Increased population and housing development will increase demand on the existing sewerage network and may increase the potential for water pollution.
Climate Change	✓	Climate change could have impacts on bio-diversity and habitats through erosion and altering migration patterns. Mitigation measure such as flood defences may also have an impact.
Habitat Loss and Fragmentation of Habitats	✓	It is unlikely that designated European sites in South Tyneside will be affected by direct habitat loss from development in the South Tyneside Local Plan due to the coastal location. However, consideration is given to the importance of protecting areas of functional land from development pressures.
Disturbance – Recreational and Urbanisation	✓	Increased populations and the proximity of housing developments to sensitive sites can create a range of potential affects including fly-tipping, cat predation, trampling of habitat, recreational disturbance by humans and dogs and noise pollution.

Table 6.2: Summary of Impact Pathway Analysis

6.21 Please note that screening is an iterative process, as the SLR is purely concerned with the identification of potential development sites on a policy neutral basis, not all Impact Pathways can be fully assessed at this stage of the plan but will continue to be considered as part of the Local Plan HRA process.

7. Stage One - South Tyneside HRA SLR Screening: Overview of the Evidence Base

- 7.1 This report comprises Stage 1 of the Habitat Regulations Assessment, the screening of the spatial objectives and options for the SLR, although some elements of Stage 2 are also undertaken. This is due to the Local Plan being at an early stage in development and, as such, the likely significant effects may be difficult to determine. It may only be through further iterations of the HRA as the Local Plan becomes more detailed and specific information about the implementation of proposals is known, that significant effects on European sites can be ruled out with a high enough degree of certainty.
- 7.2 Throughout the process the precautionary principle is being applied to the HRA. Meaning that, where any uncertainty or doubt remains regarding the potential for significant effects, a likely significant effect will be assumed. A conclusion of 'no significant effect' will only be reached where it is considered unlikely, based on the current knowledge and information available, that a component of the Local Plan could have a significant effect on the integrity of any European site(s).

Evidence Base

- 7.3 A number of reports and surveys have been conducted in order to form an evidence base for the HRA. These include:
- 2014-2015 Non-Breeding Season Report (Arcus)
 - 2015-2016 Non- Breeding Bird Survey (BSG Ecology)
 - Visitor Survey: November 2014 to April 2015 (Blue Grass)
 - Visitor Survey: November 2015 to April 2016 (Blue Grass)

Non Breeding Bird Surveys

- 7.4 Non Breeding Bird Surveys were commissioned by Sunderland City Council and South Tyneside Council to survey the coast, focusing primarily on species associated with the nearby European and national designated sites of national and European importance: knot, purple sandpiper, sanderling and turnstone.
- 7.5 Non-breeding season surveys were carried out along the coast between the River Tyne and Seaham between October 2014 and March 2015 inclusive. Further surveys were undertaken to extend the current baseline dataset. These further surveys include diurnal and nocturnal surveys for species associated with the nearby designated sites during the breeding season: little tern, kittiwake, fulmar and cormorant as well as the second non-breeding season (September 2015-March 2016) for knot, sanderling, purple sandpiper and turnstone.

- 7.6 The reports identify recreational disturbance as a key pressure, however potential habitat loss as a result of continued development, and the associated increase in potential pollution, nutrient enrichment and artificial light pollution are also identified as important areas of consideration.
- 7.7 Recommendations are provided to reduce potential impacts of the above, such as the creation of disturbance free refuges to provide undisturbed foraging and roosting areas, the creation of disturbance free islands of habitats, spits or promontories, zoning of potentially disturbing activities and the careful location of public access points. Monitoring has also been advised, in order to assess the value and workings of any implemented recommendations.
- 7.8 The reports also assessed three in-land sites to investigate the perceived functional link to the SPA. The survey showed that whilst turnstone and purple sandpiper are present within the inland survey areas, distribution is inconsistent. The SAFC Training Ground is not considered to have any significant supporting role with the coastal SPA or SSSI sites. Boldon Flats is an important location for several species of wading bird, including occasionally turnstone. Port of Tyne is the only location where both SPA species have been recorded, although again this is generally low numbers. It is thought that some functional link may exist between the SPA and the habitats within Port site.
- 7.9 Recommendations for Boldon Flats include maintaining an appropriate water level as a priority to ensure that no loss of favourable conservation condition occurs. At the Port of Tyne, potential increases in noise and visual disturbance events, and loss of intertidal mudflats resulting from any future development of the Port have the potential to lead to a negative impact upon the assemblage currently using this location.

Visitor Survey

- 7.10 Two Visitor Surveys were conducted between 2014 and 2016; the first survey was jointly commissioned between South Tyneside Borough and Sunderland City Councils the second survey was also commissioned by Durham County Council.
- 7.11 During the first survey 674 interviews took place (330 in South Tyneside, 344 in Sunderland) between November 2014 and April 2015. During the second survey, a total of 633 interviews (including 203 in South Tyneside) were conducted in South Tyneside, Sunderland and Durham during 42 interview shifts which took place between the 20th January and 31st March 2016. In both surveys, interview shifts were staggered to cover mornings, evenings, weekdays and weekends over the three month period.
- 7.12 The visitor surveys helped to gain an understanding of existing recreational pressures on the Durham Coast SAC and Northumbria Coast SPA. The visitor surveys help to inform the development of potential mitigation

and management measures in response to the effects of increased recreational disturbance at these sites. Data was gathered across six sites (South Tyneside sites coloured in blue):

- Tyne to Frenchman's Bay
- Frenchman's Bay to Lizard Point
- Lizard Point to South Bents
- South Bents to Sunderland North Pier
- Sunderland South Pier to Ryhope Denemouth
- Ryhope Denemouth to Seaham Harbour

7.13 The study provides a baseline visitor survey to show current visitor access patterns in relation to home postcode, to show the distances at which new housing may result in additional visitor numbers. The reasons why people visit the sites was also explored, including how they travel to reach the sites and what features and activities attract people to particular areas.

7.14 The survey also explored how visitor numbers might change on the site in the future and how these changes might have implications for the habitat and bird species present.

8. Stage One - South Tyneside HRA SLR Screening: Analysis of the Evidence Base

- 8.1 The following chapters set out the baseline information and evidence base required to inform this HRA of the SLR stage of the South Tyneside Local Plan.
- 8.2 The following section reports on the findings of the Visitor Surveys and the Non-Breeding Bird Surveys which will be used to inform the screening process in determining the likely significant effects of the SLR and Local Plan on the Durham Coast SAC and Northumbria Coast SPA. Please note more detailed Visitor and Non-breeding bird survey summaries can be found in Annex E.

Visitor Survey

- 8.3 The data returned from the Visitor Survey have been interrogated in order to identify the key themes and profiles emerging. The analysis has looked at the data returned from the survey sites and a profile of respondents in terms of the postcodes they visited the sites from. This has built a picture of the types of behaviours which are carried out at each site.
- 8.4 The three South Tyneside sites have been analysed as well as the most northern Sunderland site (South Bents to Sunderland North Pier) as this had a number of visitors from South Tyneside.

Headline Results

- 8.5 Around half of all the respondents come from coastal postcodes, including Sunderland residents who visit the South Bents to Sunderland Pier North site. 40% of all respondents come from eastern South Tyneside postcodes (shown in Figure 2), with 10% coming from NE34 7 (Marsden) and 9% coming from SR6 7 (Whitburn). The other visitors come from a diverse area around the North East with 40% of people coming from postcodes which had 5 visitors or less, there were 78 visitors (16%) who were the only visitor from that particular postcode.
- 8.6 Overall 66% of all respondents were visiting the coast to walk their dogs, 26% to go walking and 8% were there for other reasons including cycling, fishing and bird watching.

8.7 Whilst 48% of interviews took place on the beach and 52% on the clifftop, 73% of all interviewees intended to visit the beach on their visit.

Visiting Times

8.8 In terms of visiting times, the majority of people visit the coast every day or almost every day. As shown in Table 8.1 there is not a great difference between the frequency of people's visits between the winter and summer months. In 2014/15 Respondents tend say they visit less frequently in the summer months; however this trend reversed in the 2015/16 with people considering themselves to be more frequent summer visitors. However both surveys clearly show that the greatest proportion of respondents (between 37% and 43%) are daily visitors.

8.9 The latter survey asked additional questions to further understand the behaviour of daily visitors, enquiring how many times people visited each day. The results show that around half of daily visitors actually visit two or three times a day, thus increasing the potential for disturbance. Residents living in SR6 7 and NE34 7 are most likely to visit multiple times in one day; the 25 daily dog-walkers whom responded from the NE34 7 area indicated that they would make 46 visits a day between them. People visiting Tyne to Frenchman's Bay are the most likely to visit often (34% visiting 3 times a day) whereas Lizard Point to South Bents sees the least frequent daily visitors.

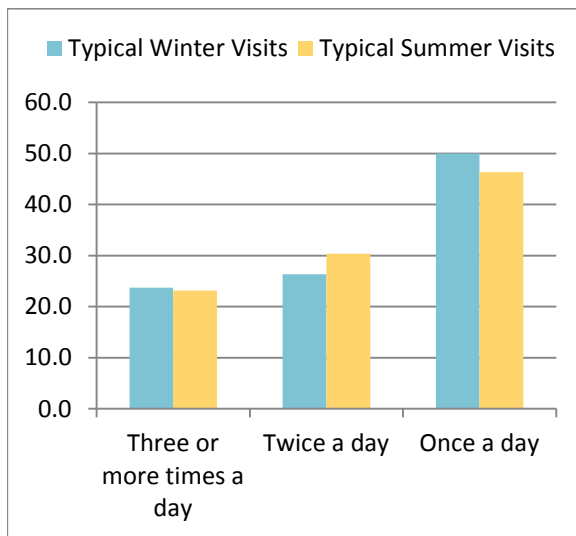


Figure 2: South Tyneside Full Survey Area (2015/16 data)

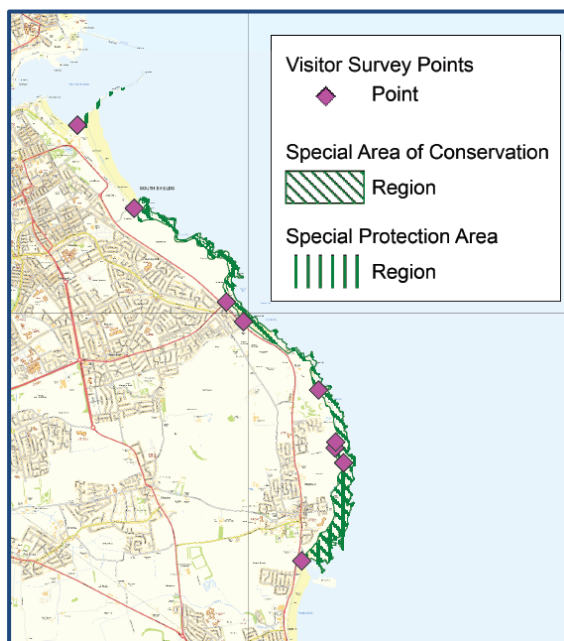


Figure 3: South Tyneside Full Survey Area

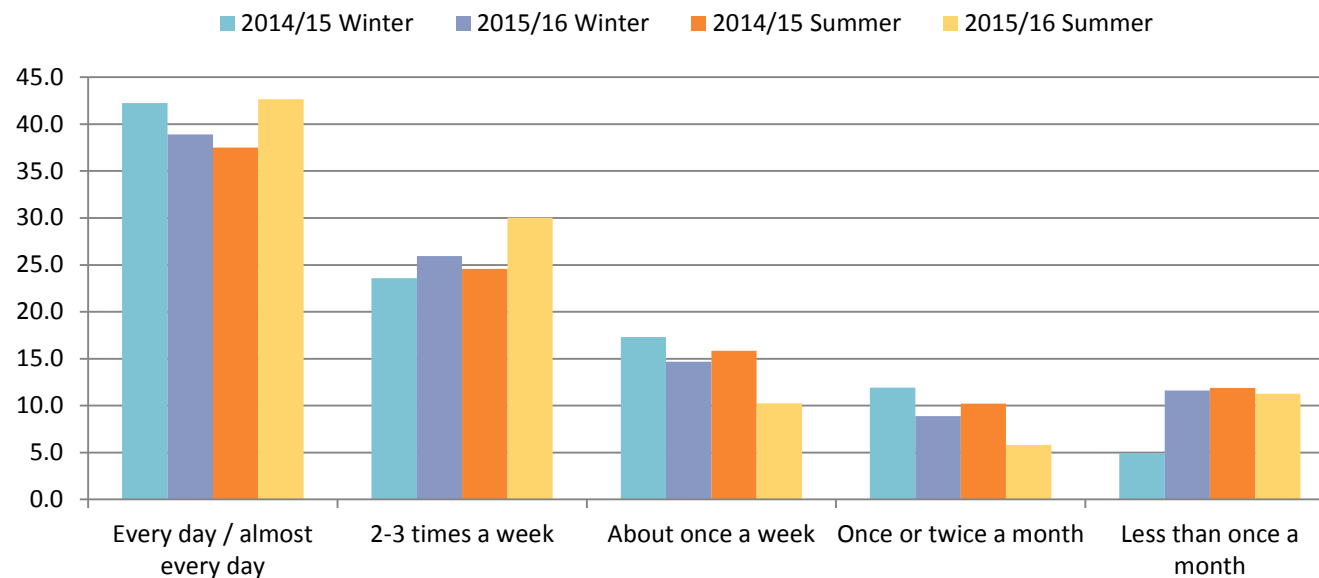


Table 8.1: Frequency of seasonal visits for all respondents

8.10 The most common time that people visit the coast is during the morning and early afternoon with the most popular visiting times being between 8am and 5pm (4pm in winter), this trend is consistent across all sites.

Distance Travelled

8.11 As shown in Table 8.2, a large portion of visitors come from the immediate local area with 35% travelling ½ miles or less and 59% travelling under two miles. 37% of local visitors travel 2- 5 miles to visit the coast and 4% travelled 6 – 10 miles.

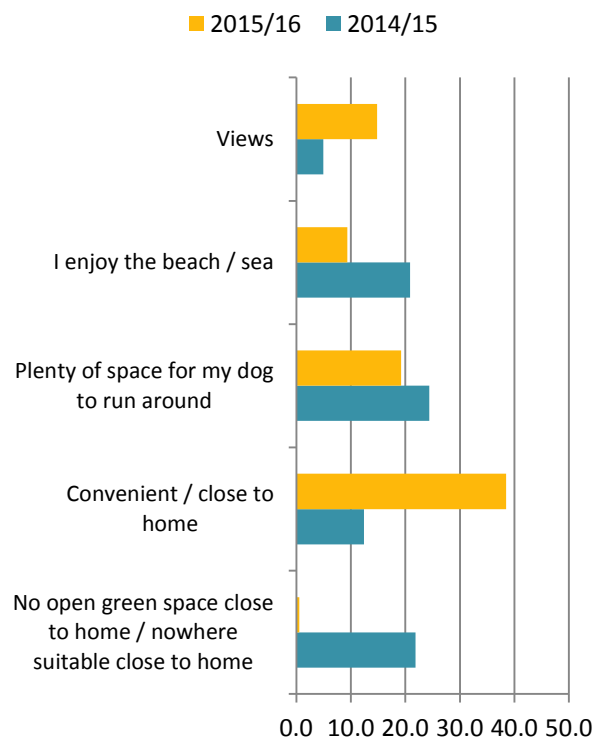


Figure 4: Main reason for visiting the coast -comparison between the two surveys.

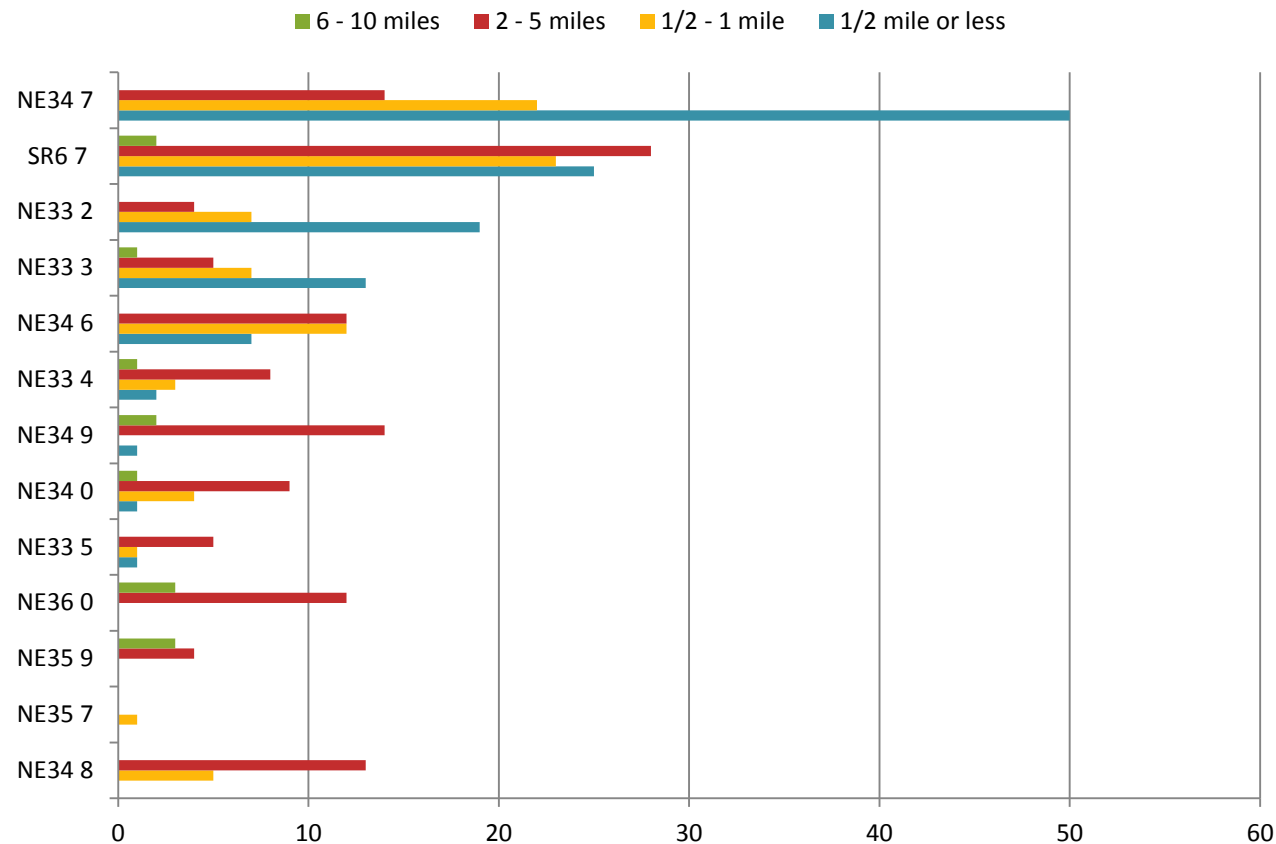


Table 8.2: Number of respondents from each postcode and distance travelled to visit the coastal sites taken over both years' surveys. NE33 2, NE33 3 NE34 7 and SR6 7 are located adjacent the coast.

8.12 72% of people from NE34 7 travel less than two miles and 14% travel 2 – 5 miles to visit the coast; around two thirds of residents visit the local stretch of coastal cliffs (Frenchman's Bay to Lizard Point) with one third heading north or south coastal areas which have beaches.

8.13 62% of people from the Whitburn and Cleadon area (SR6 7) travel under two miles and 36% travel 2 – 5miles to reach the coast. 73% of residents visit the local stretch of coastal cliffs (Lizard Point to South Bents) with 18% heading to the beach at South Bents to Sunderland North Pier.

Accessibility

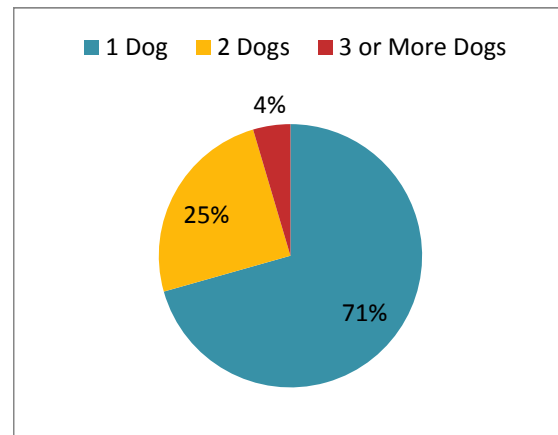


Figure 6: Average number of dogs accompanying dog walkers - taken over both years' surveys.

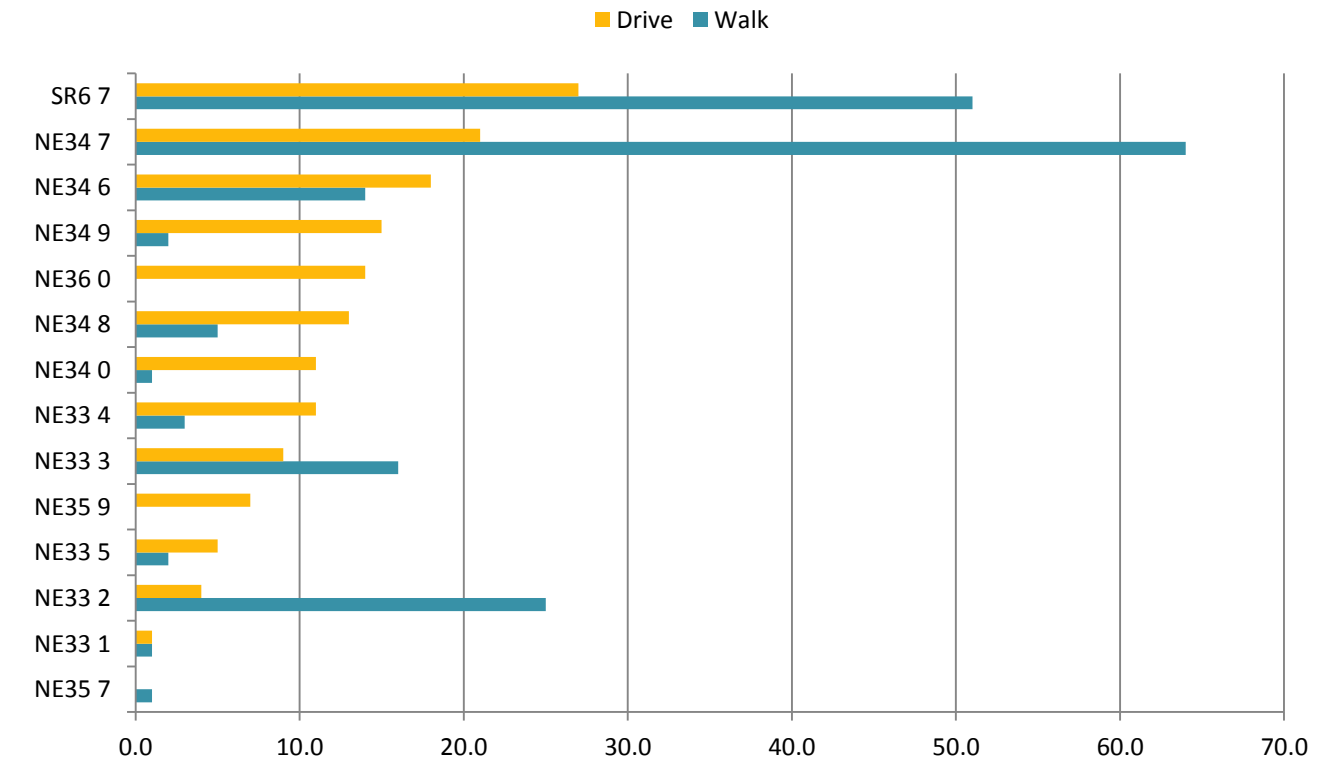


Table 8.3: Number of respondents from each postcode and method of travel taken over both years' surveys. NE33 2, NE33 3 NE34 7 and SR6 7 are located adjacent the coast.

- 8.14 In terms of site accessibility, 39% of respondents walk to the coast and 55% drive. Further analysis is shown in Table 8.3 which shows the number of people that walk or drive according to postcode. As may be expected, those closer to the coast are the most common visitors and are more likely to walk there. The least likely residents to drive are those from NE33 2 (Inner South Shields). Around one third of those from SR6 7 and one quarter of those from NE34 7 drive, however these postcodes stretch somewhat inland.
- 8.15 As shown in Figure 6 the majority of dog walkers (71%) have only 1 dog, with 25% having two dogs. This data can be used in conjunction with the Pet Population Report (22) in order to estimate the number of new dogs which may arise from any new housing developments identified in the SLR.

8.16 In terms of potentially disturbing behaviour, 85% of dog walkers who were visiting the beach intended to let their dog off on the leash. Over the two surveys 'there is plenty of space for my dog to run around' was the second most (22%) popular reason that respondents gave for visiting the coast. 25% said it was because it is convenient / close to home, 15% said they enjoyed the beach /sea and 12% said they came because there was no open green space close to home or nowhere suitable close to home.

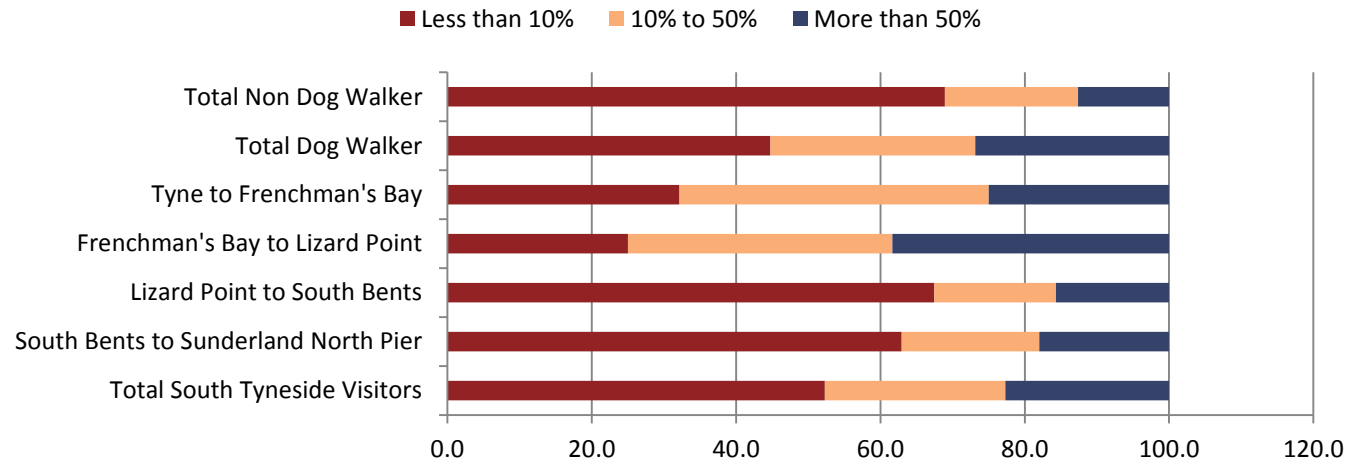


Table 8.4: Roughly, what percentage of time, if any, do you generally spend on the rocky shore here – 2015/16 Survey only

8.17 The 2015/16 survey also questioned how much of their time they generally spent on the rocky shore (a key bird habitat). The survey found that dog walkers and their dogs spend a greater proportion of their visit on the rocky shore than those without dogs in South Tyneside. Visitors to the coastal area between Frenchman's Bay and Lizard Point spent the greatest amount of time on the rocky shore.

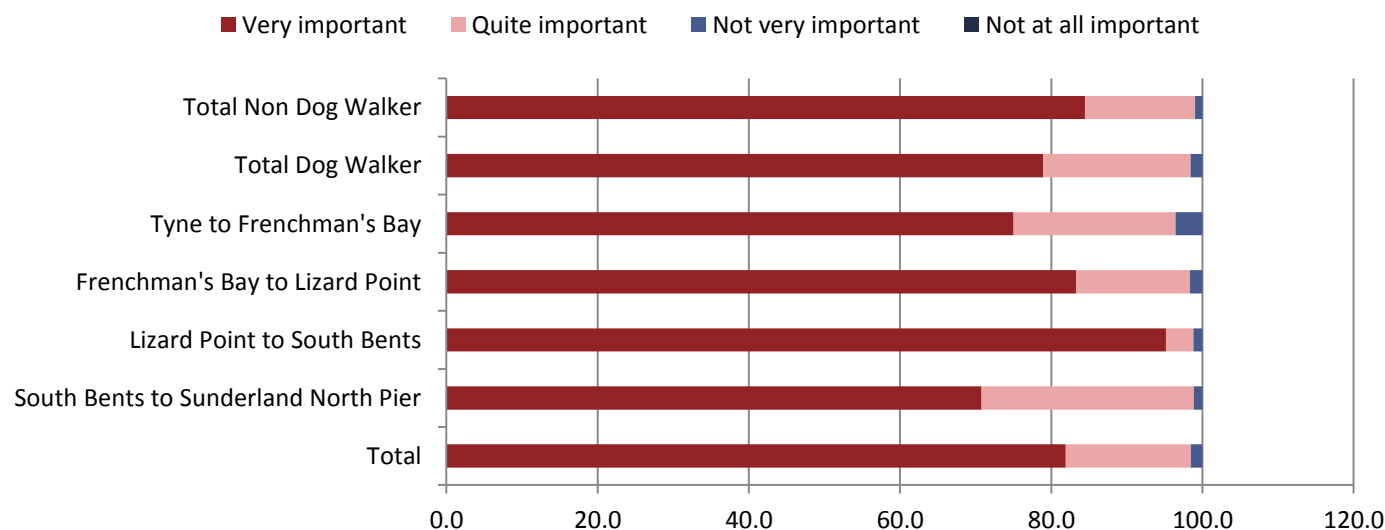
8.18 It is noted that the main reasons for visiting varied significantly between the two annual surveys, whereas other answers have been generally consistent. As shown in Figure 4 in 2014/15 22% said they visited the coast because there was nowhere suitable close to home, whereas in 2015/16 only 0.5% of people gave this response, although a much higher proportion said they went to the coast because it was convenient/close to home (39% in 2015/16 compared to 12% in 2014/15).

Attitudes to Possible Mitigation Measures

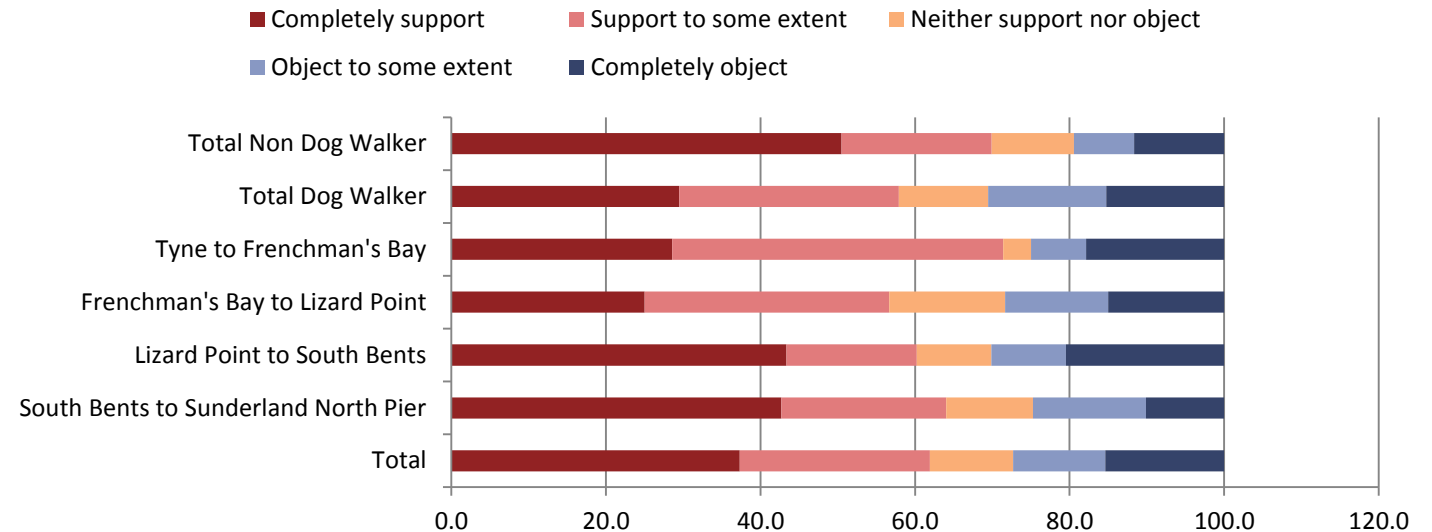
8.19 The 2015/16 Winter Survey examined respondent's attitudes to the coast and its wildlife and to potential mitigation measures. The results have been analysed in terms of all visitors to South Tyneside sites, broken up into dog walkers and non-dog walker and those who visited each of the four sites.

When you think about the coast, how important, if at all do you think it is as a wildlife site?

- Respondents answering this question at the areas which are predominantly beach (Tyne to Frenchman's Bay and South Bents to Sunderland North Pier) perceived the coast to be of less importance as wildlife sites then the sites which are predominantly rocky cliffs and bays.
- Lizard Point to South Bents was thought to be the most important wildlife site with 95% thinking it was 'very important' this correlates with the findings of the bird surveys, although South Shields pier is an important roosting habitat.
- 82% thought Frenchman's Bay to Lizard Point was a 'very important' wildlife site and 17% thought it was 'quite important'.
- Non- dog walkers are more likely to perceive the coast as being a very important wildlife site than dog walkers in South Tyneside.



Option 1 As the number of people who use the coast increases the pressures on the unique environment will increase. To what extent would you support plans which require visitors only walking on designated paths along the coast?

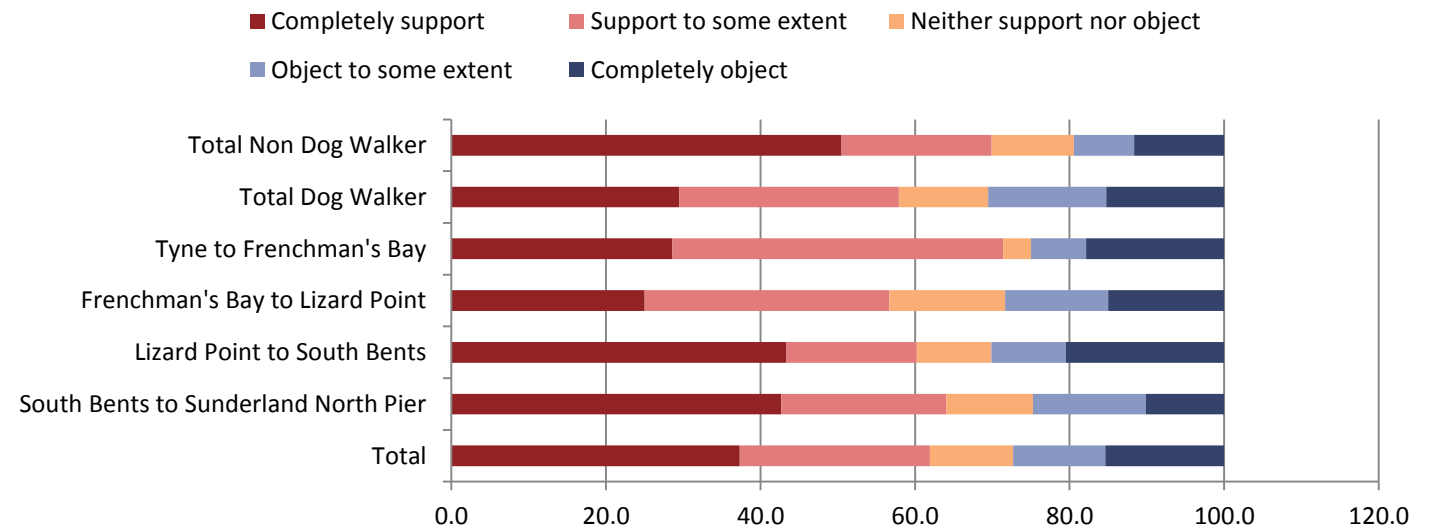


- Overall this proposal gained the support of 62% of all respondents, with 27% objecting.
- People were more supportive of this option when responding from Tyne to Frenchman's Bay, perhaps as it would be less applicable in this beach dominated area.
- Out of the three possible options this one gained the greatest objection from dog walkers with 15.3% objecting to some extent and the 15.3% completely objecting.

Option 2 ... As the number of people who use the coast increases the pressures on the unique environment will increase. To what extent would you support plans which require Dog owners to keep dogs on a lead during nesting season?

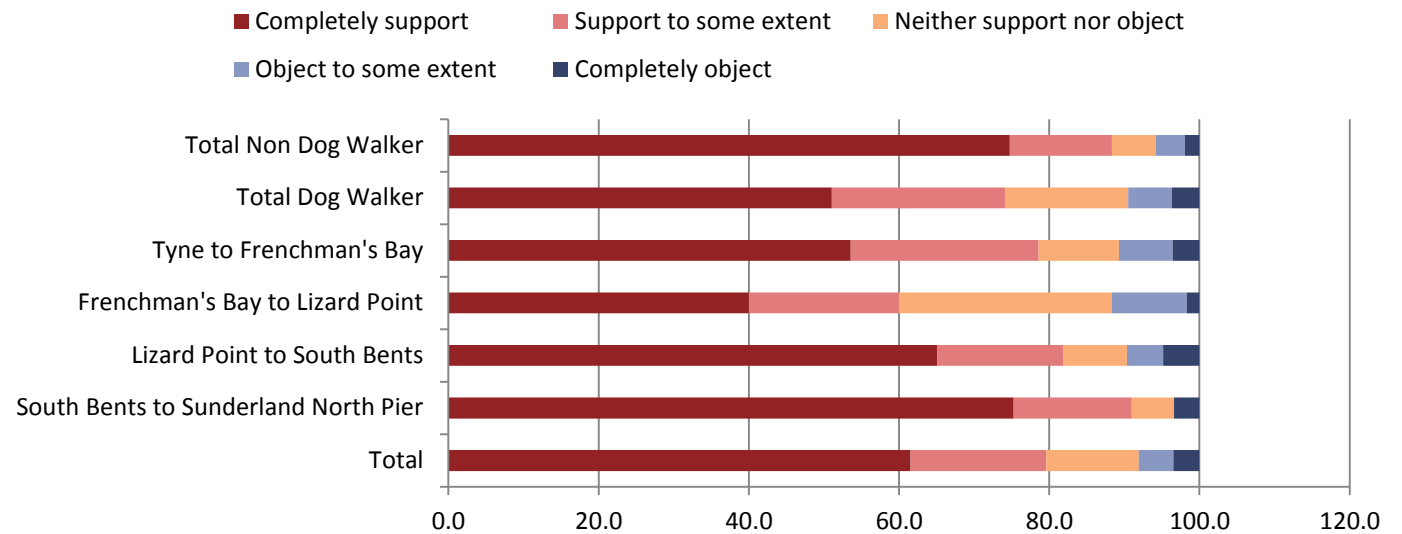
8.20 This option would not give much benefit to the European protected birds as they are over-wintering birds rather than breeding birds.

- Again, people were more supportive of this measure when questioned at South Bents to Sunderland North Pier, or those who were non-dog walkers, with considerable less people supporting the measure at Frenchman's Bay to Lizard Point or walking dogs.



Option 3 ... As the number of people who use the coast increases the pressures on the unique environment will increase. To what extent would you support plans which require Dog owners to keep dogs on a lead when walking through specific areas?

- This measure received the greatest level of support overall (80%) and the least number of objections. Support was highest with those questioned at South Bents to Sunderland North Pier (91%) and Lizard Point to South Bents (82%).
- This is also the option which was most favoured by dog walkers with 74% showing support (51% completely supporting the measure and 23% supporting it to some extent).
- There was less support from those questioned at Frenchman's Bay to Lizard Point with 10% completely objecting and 60% showing support. However, this option was still the more popular of the three in this location.



8.21 This survey shows that there is a good level of support for measures which could be brought in to offer protection to the protected bird species. The ways in which measures could be effectively implicated will be subject to further consideration. It also shows that people recognise the coast as an important wildlife habitat.

Non-Breeding Bird Survey



- 8.23 The following draws out some of the key results from the Arcus 2014-2015 Non-breeding Season Report and the BSG Ecology Non-breeding Bird Survey 2015 -2016, focussing on South Tyneside. Some sites in northern Sunderland are also mentioned as the visitor survey has found that small numbers of South Tyneside residents visit this site and so can impact on the bird populations.
- 8.24 Based on the information contained within Table 5.1 the following are the species considered to be important in the local area: little tern, purple sandpiper, turnstone, cormorant, kittiwake, Arctic tern, golden plover, eider, sanderling, knot and fulmar. The following species were the focus of the 2014-15 non-breeding season survey: purple sandpiper (SPA linked), turnstone (SPA linked), sanderling and knot. In addition, the 2015 – 2016 study also surveyed species which form part of the wading bird assemblage present at the coast; these include: redshank, curlew, oystercatcher, golden plover, ringed plover, dunlin, black-tailed godwit, snipe and lapwing.
- 8.25 The surveys split the South Tyneside and Sunderland Coast in five survey areas which were further broken down into 24 'count sectors'. The results from sectors 1 (Mouth of the River Tyne) to 12 (Seaburn Beach) are relevant to this report, a map of the sectors is included in Figure 9 below.

Headline Results

SPA Linked Birds - Feeding and Roosting Locations

- 8.26 Whilst it is not possible to directly compare the data for all species recorded by Arcus Consulting Limited during the 2014/15 survey and by BSG Ecology during the 2015/16 survey. A direct comparison can be made key species associated with the Special Protection Area, namely turnstone and purple sandpiper. Overall the reported numbers of both cited species were lower in 2015/16 when compared to the 2014/15 data. There are a number of factors which may have contributed to the variation in numbers recorded between the two surveys. Factors such as breeding success, poor weather on passage from breeding grounds and food availability may all contribute, however, this remains speculation.
- 8.27 Table 8.5 shows the most important count sectors for each of the SPA linked birds in 2014/15 (aside from Knot due to low occurrences). Table 8.6 shows the same data for 2015/16.

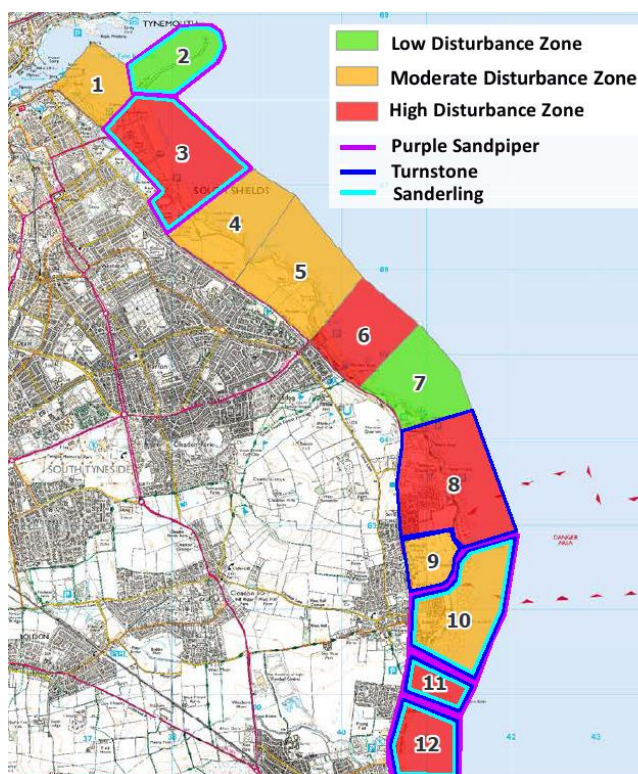


Figure 5: Top five count sectors for SPA birds (2014/15 survey) overlaid onto map showing key areas of disturbance (developed from data provided by Arcus, 2015)

Purple Sandpiper		Turnstone		Sanderling	
Count Sector	% of SPA Population	Count Sector	% of SPA Population	Count Sector	Total Max Count*
10	6.7	10	18.6	10	248
3	5.3	9	15.9	11	150
11	4.1	8	13.3	2	126
2	2.7	12	9.3	12	121
12	2.5	11	6.6	3	50
* % of SPA Population data not available for Sanderlings					

Table 8.5: 2014/15 Top five most important count sectors - Feeding/Roosting (Combined) with percentage of SPA population (adapted from Arcus survey, 2015)

Purple Sandpiper		Turnstone		Sanderling	
Count Sector	% of SPA Population (% as max count)	Count Sector	% of SPA Population(% as max count)	Count Sector	Average Peak Count
11	0.48% (3.1%)	11	2.4% (5.8%)	10	52
2	0.27% (1.31%)	10	2.26% (4.6%)	11	50
10	0.26% (1.57%)	9	2.12% (6.04%)	12	109**
4	0.17% (0.78%)	8	0.46% (1.64%)	n/a	n/a
5	0.03% (0.13%)	5	0.43% (1.3%)	n/a	n/a
* % of SPA Population data not available for Sanderlings, ** Peak Count					

Table 8.6: 2015/16 Top five most important count sectors - Feeding/Roosting with percentage of SPA population (adapted from BSG Survey, 2016)

8.28 It is possible to look at broad trends, for example, purple sandpiper counts for the Durham Coast SPA (the closest available WeBS site to the study area and therefore the most relevant) for the years between 2010/11 and 2014/15 were 51, 68, 29, 65 and 59 respectively. This demonstrates that the population naturally fluctuates from year to year, and therefore comparison between studies carried out in consecutive years does not necessarily provide a reliable assessment of population status. The reports provided by Arcus

Consulting Services in 2014/15 and by BSG Ecology in 2015/16 should therefore be viewed as only providing a snapshot of bird activity within each given survey period.

- 8.29 The results of surveys show that the distribution of both cited species was broadly similar between the 2014/15 and 2015/16 studies. Purple sandpiper was most frequently recorded and in the biggest numbers within sectors 10 and 11. It was recorded much less frequently within sectors 2, 4, and 18. Turnstone was also found in broadly the same locations during both the 2014/15 and 2015/16 studies. Sectors 10 and 11 were consistently recorded as areas of most significant foraging and roosting activity for the species. Turnstone was recorded in relatively low numbers across the 5 survey areas. During both studies turnstone was the most frequently recorded of the two SPA cited species. The most important feeding areas for turnstone were off along the Whitburn coast, from Whitburn Country Park to White Steel Rocks and off the coast of South Shields. The most important roosting areas for turnstone are around Whitburn and on South Shields' South Pier.

Disturbance:

- **Actual disturbance**- includes any disturbance event, natural or human related, that caused an observed reaction from waders present within the survey area; and
- **Potential disturbance** - refers to any event that could disturb birds but where the event did not cause actual disturbance at the time (e.g. if birds were not obviously within the vicinity of the event).

Disturbance

- 8.30 Disturbance surveys were conducted during October 2014 - March 2015 and October 2015 - March 2016 which focused on recording disturbance within each count sector of the site during both the high-tide and low-tide periods.
- 8.31 The surveyors used an established methodology to recorded the number and location of key SPA linked birds and other wader species where present (e.g. golden plover, lapwing etc.), as well as both actual and potential disturbance. Repeated events in an area which may be causing displacement of birds (e.g. a continual presence of people on a beach may be preventing birds from feeding in that area without causing any directly observable disturbance) was also considered.
- 8.32 In the 2014/15 survey total of 2,527 disturbance events were recorded during the disturbance surveys. Table 8.7 lists all of the count sectors in rank order of the number of disturbance events recorded, the five most heavily disturbed count sectors (over 100 disturbances) and there geographical location. The 6th and 7th most disturbed areas have also been included due to experiencing a high level of disturbance (98 counts) and their importance to SPA linked birds.

8.33 The table also shows the most important count sectors for purple sandpiper, turnstone and sanderling (knot is not shown due to its low occurrence). The table highlights (in green cells) the five most important count sectors for each of these three species.

Disturbance Event Rank	Number of Disturbance Events	Count Sector	Broad Geographical Location	Rank of count sector for each species (% of SPA population)		
				Turnstone	Purple Sandpiper	Sanderling
1	355	12	Seaburn Beach	4 (9.3)	4 (2.5)	4 (n/a)
2	222	3	South Shields Pier/ Sandhaven Beach	8 (4)	1 (5.3)	5 (n/a)
3	168	8	Lizard Point to Souter Point	3 (4.6)	8 (0.8)	6 (n/a)
4	144	6	Marsden Bay	10 (1.8)	10 (0)	8 (n/a)
5	136	11	Whitburn Steel/ Whitburn Bay	5 (6.6)	2 (4.1)	2 (n/a)
6	98	9	Souter point, Whitburn	2 (15.9)	11 (0)	1 (n/a)
7	98	10	White Steel Rocks, Whitburn	1 (18.6)	1 (6.7)	1 (n/a)

Table 8.7: Count Sectors with Disturbance rank over 100 and relative importance for purple sandpiper, turnstone and sanderling (top five most important sites highlighted in green) (adapted from Arcus survey, 2015).

- 8.34 As with the species data described previously, it is very difficult to directly compare the data sets from the two surveys. Overall the level of both potential and actual disturbance events recorded during the 2014/15 study was much greater when compared to that recorded during the 2015/16.
- 8.35 Despite the differences in the number of events recorded between the two studies, the division of events is broadly similar. Dog walking (not on a lead) accounted for a significant proportion of the recorded events: 45% of events in 2014/15 and 46.3% of events during the 2015/16 study. Thereafter recreational walking, angling activities, and beachcombing were the next most regularly recorded events in each case.
- 8.36 The distribution of disturbance events also indicated some similar patterns similar between the two studies with the 2014/15 study finding sectors 3, 8, 12, 6 and 11 to be the locations where the most disturbance

events occurred. This compared with sectors 1, 3, 8, 10 and 11 during the 2015/16. This highlights that the areas in which the greatest level of actual disturbance occur are around Trow Point and Frenchman's Bay, between Whitburn Steel and Seaburn Beach. These areas provide the main areas of concern for land on which activities may have an adverse effect on birds, which could impact upon the conservation objectives of the SPA.

Potential Impact Assessment

8.37 For ease of reference, the following summarises the assessment and recommendations made in the Non-Breeding Bird Survey regarding the impact of development on the key bird species. The report forms part of the Local Plan evidence base and is publically available.

8.38 The potential impact of development within the vicinity of the SPA and SSSI could potentially result in the following impacts to waders, including the qualifying interest species: knot, purple sandpiper, sanderling and turnstone:

- **Habitat loss and modification** - Although the SLR sites will not have a physical impact on intertidal habitat, birds may still be affected. Some developments adjacent to the coast may result in loss of inland habitat used by coastal birds that can be particularly important at certain times (e.g. foraging or roosting areas such as count sector 9 – The former Rifle Ranges). Adjacent development may also displace birds from intertidal habitats as a result of disturbance during and after construction. Therefore, it is important that planning assessment takes into account any potential indirect effects that may occur through changes to the water and sediment flows and through disturbance as well as cumulative impacts.
- **Disturbance/displacement** - People walking dogs were the most numerous cause of disturbance, with some areas prone to almost constant disturbance. Dogs can be especially disturbing, particularly free-running dogs which can cause substantial disturbance at both roost and feeding sites. Disturbance of waders is most important over the high-tide period, when the number of safe, undisturbed, roosting sites may be limited. Though it is not possible to quantify the number of additional people/disturbance events that will trigger a reduction in carrying capacity, any increase in disturbance could result in further, additional pressures on these species, potentially leading to negative impacts on the SPA population.
- **Pollution** - A wide range of anthropogenic additions to the coastal environment come under the heading of pollution and nutrient enrichment, from items on the seabed or in the water column to chemicals as coatings on surfaces or dispersed in the water or sediment. Pollution occurs most commonly as a result of low-level inputs coming into the estuarine system from many diffuse

sources, including residential properties. Artificial light can have a disorientating impact on birds and can lead to direct mortality in some instances. The problem of artificial street lights can be reduced significantly by shielding which should be put in place at new developments.

Recommendations

- 8.39 The following recommendations are taken from the Arcus Non-Breeding Bird Survey to inform the HRA process and the development of potential mitigation strategies.
- 8.40 Any attempt to reduce the impacts of disturbance needs to focus on where disturbance is likely to be having a significant long term impact at a species level, and to make an assessment of the most important habitats, the most important species, and the type and severity of disturbance events.
- 8.41 The areas around Trow Point and Frenchman's Bay and between Whitburn Steel and Seaburn Beach are the most heavily disturbed; these areas are also of importance to the key species sanderling, turnstone and purple sandpiper. It is recommended that plans are put in place to reduce levels of disturbance in count sectors in these areas. Local, and often voluntary, exclusion zones are widely implemented by, for example sailing clubs and other recreational organisations, and it is recommended that similar approaches are made here.
- 8.42 Other widely practiced and advocated measures to reduce disturbance includes encouraging access to less sensitive parts of a site, for example through the creation of access points, and preventing access to certain other, more important areas. The reduction of disturbance in count sectors 9, 10 and 11 (Lizard Point to South Bents) is considered likely to be beneficial to the key species.
- 8.43 The provision of safe roost sites for waders is likely to be especially important, as studies have shown that this is where they are most likely to be disturbed. Roost use is highly variable according to conditions (e.g. wind direction), so the provision of a range of undisturbed natural and artificial roosts within an appropriate distance of feeding areas may be important. Similarly, measures to prevent disturbance in late winter may also be particularly important as this will be when many species are likely to be most at risk and less able to compensate for the effects of disturbance; declining temperatures and food quality combine to make survival more difficult in late winter. This is especially true during periods of severe weather, when birds may be at risk of starvation even without the added impact of disturbance.

8.44 The following preliminary recommendations are based on one non-breeding season for management measures to reduce the impact of known disturbance activities on roost sites and foraging areas:

- Creation of disturbance free refuges to provide undisturbed foraging and roosting opportunities for waders; these may be more valuable at inland sites, such as the Rifle Ranges which are currently known to support a range of key species. Other inland coastal areas may require land purchase in suitable areas;
- Creation of disturbance free islands of habitat, spits or promontories (e.g. a pier that can be used as a roosting refuge, sea-defence structures – could be achieved by restricting access to piers that are currently suitable, and used by birds, but are frequently disturbed by fishermen);
- Zoning of potentially disturbing activities (e.g. dog walking), prohibit access, and enhancement of those areas devoted to waders, for example, restricting access during the winter period within 100 m of the base of Tyne South Pier to allow the key species room to forage and roost along Tyne South Pier and the adjacent beach in an undisturbed area;
- Careful location of public access points and concealment of public/observers where possible e.g. along the coast near the former Rifle Ranges (e.g. screening, banking, bunding etc.).



Figure 6: Strategic Growth Option 'see-saw' illustrating the pros and cons of different levels of growth.

Option	Housing Growth
No Plan	Households remain largely static
Option A	Majority of Green sites 1/3 Amber sites
Option B	Majority of Green sites 2/3 Amber sites
Option C	Majority of Green sites Majority of Amber sites Some red sites

Figure 7: Estimate of sites which would be necessary to be developed to realise each growth option.

9. Stage One - South Tyneside HRA SLR Screening: Screening of SLR Sites

Strategic Land Review (SLR) Process

- 9.1 The purpose of this HRA is to assess the potential impacts of the Local Plan against the conservation objectives of European sites - Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar Sites. The current stage of the Local Plan is the Strategic Land Review (SLR). This document considers the potential suitability of land all across South Tyneside for meeting those future development needs, assessing all possible site options including previously-developed 'brownfield' sites as well as previously-undeveloped 'greenfield' land and Green Belt land.
- 9.2 Prior to the SLR, between the 8 June to the 10 July 2015, a focused public consultation took place regarding the potential scale of growth which could take place in the Borough. Using simple conceptual seesaw diagrams, the growth options consultation sought to focus on some of the key 'trade-offs' we need to consider in seeking to provide sufficient housing and job opportunities for our forecast growing population. It gave people three options for growth to consider (see Figure 10).
- 9.3 These assessments were made without consideration on the potential impact upon against the conservation objectives of the European Sites as this HRA Screening Document is the appropriate place for this assessment. It should be noted that the cumulative impact can only be assessed once the plan and evidence base progresses and a growth option is decided upon.
- 9.4 The draft SLR was published in May 2016. The corresponding 'Plan Your Borough' consultation ran from May – July 2016. More than 4,300 representations were received in response to the consultation. Information and comments received as part of the consultation have helped to refine the SLR assessment framework, including the introduction of a more transparent Green Belt assessment. Following these changes to the assessments and additional information received, some SLR site assessments have changed and some sites were split into smaller parcels.

Disturbance – Recreational and Urbanisation Buffer Zone

- 9.5 At this stage of the assessment it is necessary to decide a buffer zone around the European sites in which SLR sites could be considered. The buffer zone has been informed by the Visitor Survey which found that 40.5% of visitors come from the South Tyneside, 33.5% from Sunderland with the other 26% coming from a wide (129 different postcode sectors) and far ranging area including Durham, Darlington, Teesside, Newcastle, Liverpool and Cambridgeshire. Those visiting from furthest away are also the most likely to visit infrequently (less than once a month or 2/3 times a month).

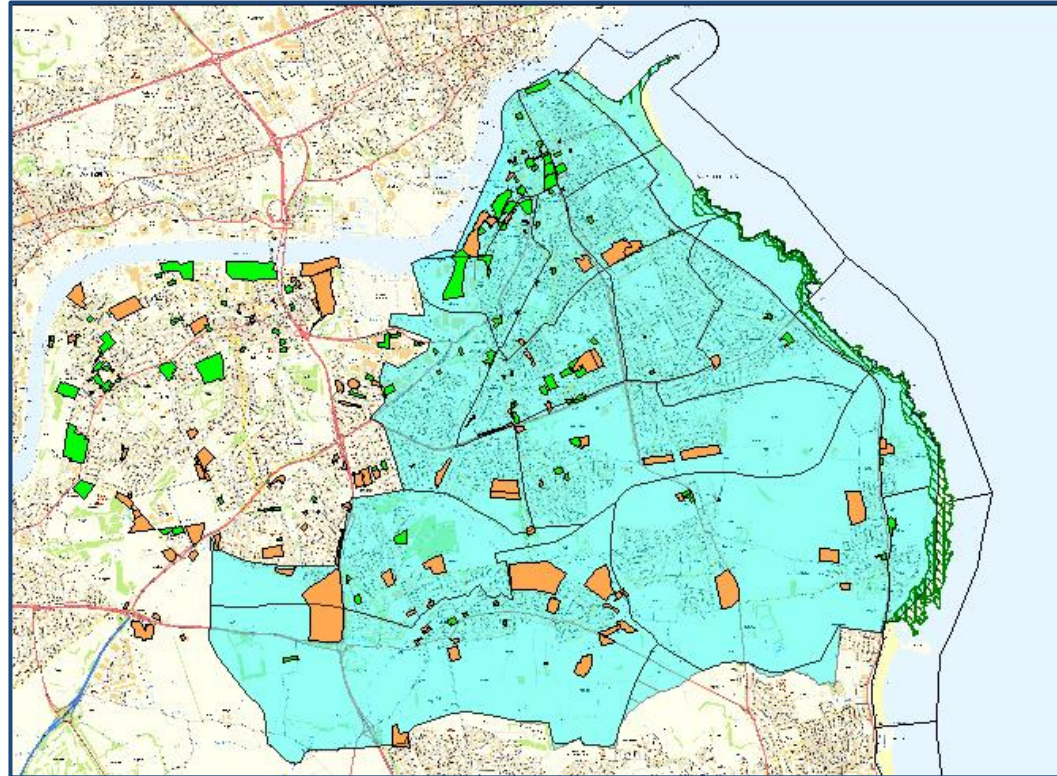


Figure 8 Map of South Tyneside showing postcode areas highlighted in blue (respondents from this area represent 95% of all visitors from South Tyneside and 40% of total respondents)

- 9.6 As the visitor study has found, 95% of South Tyneside visitors came to the coast from coastal and central South Tyneside. It is considered that this is an appropriate buffer zone for the HRA screening process. This

area roughly forms a 5-7km radius around the European sites. The map in Figure 12 shows this area which will herein be referred to as the proposed 'recreational buffer zone'.

- 9.7 This stage of the HRA process is only addressing the potential impacts of the South Tyneside sites which have been considered in the SLR. These sites have the potential to be allocated for housing or employment land and could have a possible impact upon the conservation objectives of the European sites. Therefore the areas which have the greatest number of coastal visitors which are likely to make the biggest impact.
- 9.8 As the Local Plan progresses the impact of other policies such as those for tourism, economic development, climate change, minerals and flooding will be assessed as part of the HRA process. These policies will either be assessed Borough-wide or a buffer zone appropriate to these policies will be used.

Other Urban Effects – Buffer Zone

- 9.9 Other Urban Effects include air quality, hydrology and water quality. Changes in the environment involving these pathways are likely to be localised to the development site and surrounding area. Based on guidance received from Natural England, an appropriate buffer distance around European sites over which other urban effects may occur, a distance of 400m will be used.

Habitat Loss and Fragmentation of Habitats – Buffer Zone

- 9.10 There are no sites in the SLR which could create direct habitat loss of the designated European sites in South Tyneside. However, consideration must be had to the importance of protecting areas of functional land from development pressures. A buffer zone of 200m from the European Sites is proposed, which is informed by the Non-Breeding Birds data.

Pet Ownership

- 9.11 As mentioned previously the visitor surveys undertaken indicated that dog walking is the main activity undertaken at the coast and the bird surveys confirmed extensive use of the coast by dog walkers. Dog walking is a daily discipline and in many cases may mean one or more walks with the dog every day, in every season, and every weather. Thus the impact of dog walkers is comparatively much more frequent than for

other walking activity. Dog walking is also strongly linked to the disturbance of birds; especially when the dogs are off the lead.

9.12 An attempt has been made to calculate new levels of pet ownership which could potentially be created by new residential development. This is based on the PFMA survey conclusion that 24% of households keep dogs and 17% keep cats (22); the numbers of dog ownership per household has been calculated using responses from the Visitor Survey (Table 8.4), no such data is available for cats.

9.13 Numbers for households with cats have only been calculated for sites within 400m from the SPA which is considered to be a suitable buffer, based on average cat predation distances and the ability to affectively mitigate the likely significant effect caused by cat predation (17).

xx

Preliminary Screening for Likely Significant Effects of the SLR (either alone or in-combination)

Post code	Number of sites	% of visitors from post code*	Green SLR Sites	Amber SLR Sites	Total Housing Capacity	Potential new dogs	Potential New Households with Cats**	Potential new residents
SR6 7	16	20.5	6	10	737	244	N/A	1576
NE33 1	13	1.4	9	4	463	153	N/A	990
NE34 0	21	4.2	13	7	677	224	N/A	1449
NE33 3	3	7.3	1	2	288	95	2	616
NE33 2	11	8.7	11	0	417	138	N/A	891
NE33 5	4	2	4	0	49	16	N/A	106
NE33 4	7	3.9	5	2	143	47	N/A	305
NE34 6	1	8.1	1	0	2	1	N/A	4
NE34 7	3	24.2	2	1	99	33	9	212
NE34 8	6	4.8	3	3	309	102	N/A	660
NE34 9	6	8.3	2	4	384	127	N/A	822
NE36 0	22	5.4	4	18	1206	400	N/A	2582
NE35 9	9	3.9	0	9	1205	399	N/A	2579

* As a percentage of all visitors from South Tyneside ** Only sites within 400m (17)

Table 9.1: Overview of all Green and Amber SLR sites within the buffer zone.

- 9.14 Table 9.1 below shows a summary of all green and amber SLR sites in each of the ten postcodes within the buffer zone, how many visitors from the postcode visit the coast and how many potential pets residential development could generate – based on all site capacity coming forward. A detailed site by site analysis can be found in Annex F.

Potential Mitigation

- 9.15 In general, the likelihood of significant effects occurring on European sites has not been able to be ruled out because some of the options are likely to lead (either directly or indirectly) to an increase in new development, bringing with it associated potential negative impacts on water quality and availability at European sites, increased visitor numbers at European sites, or an increase in the volume of car traffic in the area. It is also not possible to identify the cumulative impact of the development of sites until the level of growth for the Borough has been established.
- 9.16 Mitigation of some effects could be achieved through the requirement for good practice measures during construction (e.g. of transport infrastructure) such as noise and light reduction and more efficient use of water in new development.
- 9.17 Some of the options (which will be developed into policies) should also help to implement some of the mitigation measures described above, helping to avoid significant effects on European sites. Specific recommendations for mitigation to be included within the Local Plan will be considered further in the next stage of the HRA for the South Tyneside Local Plan.

Consultation and Next Steps

- 9.18 In line with the requirements of the Habitats Regulations, representations are being sought from Natural England on the findings of the HRA Screening of the SLR set out in this report. The Council will have regard to representations received in carrying out further HRA work at the next stage of Plan.
- 9.19 As the Local Plan progresses, a Proposed Submission draft will be published for Regulation 19 consultation in (expected late 2018). The Proposed Submission draft Local Plan document will be accompanied by an amended HRA Screening Report which will screen the proposals within the Plan and conclude whether they

are likely to have a significant effect on any European site, either alone or in combination with other plans and projects. If likely significant effects still cannot be ruled out then it will be necessary to proceed to an Appropriate Assessment to determine whether the Local Plan proposals will have an adverse effect on the integrity of any European site and to recommend appropriate avoidance and mitigation measures.

- 9.20 The Council is commissioning the production of an Interim Habitat Regulations Supplementary Planning Document. This document is intended to secure a consistent approach to HRA and provide some certainty in delivering effective mitigation until the emerging Local Plan and its associated documents provide the long term strategy.

Annex A: Durham Coast SAC Citation, Conservation Objectives and Natura 2000 Single Data Form

EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora

Citation for Special Area of Conservation (SAC)

Name: Durham Coast
Unitary Authority/County: Durham
SAC status: Designated on 1 April 2005
Grid reference: NZ455407
SAC EU code: UK0030140
Area (ha): 393.63
Component SSSI: Durham Coast SSSI

Site description:

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 maritime-influenced, calcareous and species-rich-neutral grasslands, tall-herb fen, seepage flushes and wind-pruned scrub. Within these habitats rare species with varied ecological requirements 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.

Qualifying habitats: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Vegetated sea cliffs of the Atlantic and Baltic coasts

This citation relates to a site entered in the Register of European Sites for Great Britain.

Register reference number: UK0030140

Date of registration: 14 June 2005

Signed: *Trevor Salmon*

On behalf of the Secretary of State for Environment, Food and Rural Affairs



European Site Conservation Objectives for Durham Coast Special Area of Conservation Site code: UK0030140

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

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

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

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

H1230. Vegetated sea cliffs of the Atlantic and Baltic coasts

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") and Article 6(3) of the Habitats Directive. They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment', including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where available) will also provide a framework to inform the measures needed to conserve or restore the European Site and the prevention of deterioration or significant disturbance of its qualifying features as required by the provisions of Article 6(1) and 6(2) of the Directive.

These Conservation Objectives are set for each habitat or species of a [Special Area of Conservation \(SAC\)](#). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving Favourable Conservation Status for that species or habitat type at a UK level. The term 'favourable conservation status' is defined in Article 1 of the Habitats Directive.

Publication date: 30 June 2014 (version 2). This document updates and replaces an earlier version dated 29 May 2012 to reflect Natural England's Strategic Standard on European Site Conservation Objectives 2014.

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

--	--	--	--	--	--	--	--	--	--

1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	200103
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200504

2. Site location:

2.1 Site centre location

longitude	latitude
01 17 34 W	54 45 32 N

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

2.5 Administrative region

NUTS code	Region name	% cover
UK112	Durham	100.00%

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
Vegetated sea cliffs of the Atlantic and Baltic coasts	30.6	B	C	A	B
Fixed dunes with herbaceous vegetation ("grey dunes")	2.6	D			

3.2 Annex II species

Species name	Resident	Population			Site assessment			
		Breed	Winter	Stage	Population	Conservation	Isolation	Global

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	21.0
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	43.0
Shingle. Sea cliffs. Islets	31.0
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	5.0
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)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Basic, Clay, Limestone, Limestone/chalk, Nutrient-rich, Sedimentary

Geomorphology & landscape:

Cliffs, Coastal, Intertidal rock, Lowland

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 Vulnerability

Vegetated sea cliffs range from vertical cliffs in the north with scattered vegetated ledges, to the Magnesian limestone grassland slopes of the south. Parts of the site are managed as National Nature Reserve, and plans provide for the non-interventionist management of the vegetated cliffs. The majority of the site is in public ownership and an agreed management plan is being developed to protect nature conservation interests.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK01 (NNR)	15.3
UK04 (SSSI/ASSI)	100.0

Annex B: Northumbria Coast SPA Citation, Conservation Objectives and Natura 2000 Single Data Form

EC Directive 79/409 on the Conservation of Wild Birds: Special Protection Area (SPA)

Name: Northumbria Coast

Unitary Authority/County: Northumberland County Council, Durham County Council, South Tyneside Metropolitan Borough Council, North Tyneside Council, and City of Sunderland.

Consultation proposal: Parts of Northumberland Shore SSSI, Durham Coast SSSI, Newton Links SSSI and Lindisfarne SSSI have been recommended as a Special Protection Area because of the site's European ornithological interest.

The Northumbria Coast SPA consists of mainly discrete sections of rocky shore with associated boulder and cobble beaches. The SPA also includes parts of three artificial pier structures and a small section of sandy beach.

Boundary of SPA: See map for details of SPA boundary.

European ornithological interest of SPA

Northumbria Coast SPA is of European importance because:

- a) The site qualifies under **article 4.1** of the Directive (79/409/EEC) as it is used regularly by 1% or more of the Great Britain population of a species listed on Annex I in any season:

Annex I species	5 yr mean for 1993-1997	
Little tern <i>Sterna albifrons</i>	40p	1.7 % GB

p = Pairs

- b) The site qualifies under **article 4.2** of the Directive (79/409/EEC) as it is used regularly by 1% or more of the following bird populations of European importance in any season:

Migratory species	5 yr peak mean for 1992/93 - 1996/97	
Purple sandpiper	787i	1.6% E Atlantic (wintering)
Turnstone <i>Arenaria interpres</i>	1,739i	2.6% W Palearctic (wintering)

i = Individuals

Non-qualifying species of interest

In addition, the site supports nationally important populations of Sanderling *Calidris alba*, Ringed Plover *Charadrius hiaticula* and Redshank *Tringa totanus*. Northumbria Coast SPA also supports a number of Annex I birds (below the 1% qualifying level), including Arctic Tern *Sterna paradisaea* and Golden Plover *Pluvialis apricaria*.



European Site Conservation Objectives for Northumbria Coast Special Protection Area Site Code: UK9006131

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

- A148 *Calidris maritima*; Purple sandpiper (Non-breeding)
- A169 *Arenaria interpres*; Ruddy turnstone (Non-breeding)
- A195 *Sterna albifrons*; Little tern (Breeding)

This is a European Marine Site

This SPA is a part of the Northumbria Coast European Marine Site (EMS). These Conservation Objectives should be used in conjunction with the Regulation 35 Conservation Advice document for the EMS. For further details about this please visit the Natural England website at: <http://www.naturalengland.org.uk/ourwork/marine/protectandmanage/mpa/europeansites.aspx> or contact Natural England's enquiry service at enquiries@naturalengland.org.uk or by phone on 0845 600 3078.

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") and Article 6(3) of the Habitats Directive. They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment' including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where this is available) will also provide a framework to inform the management of the European Site under the provisions of Articles 4(1) and 4(2) of the Wild Birds Directive, and the prevention of deterioration of habitats and significant disturbance of its qualifying features required under Article 6(2) of the Habitats Directive.

These Conservation Objectives are set for each bird feature for a [Special Protection Area \(SPA\)](#). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving the aims of the Wild Birds Directive.

Publication date: 30 June 2014 (Version 2). This document updates and replaces an earlier version dated 29 May 2012 to reflect Natural England's Strategic Standard on European Site Conservation Objectives 2014.

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

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

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						
Code	Species name		Breed	Winter	Stage	Population	Conservation	Isolation	Global
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>	1.7% of the GB breeding population
(Eastern Atlantic - breeding)	5 year peak means 1992/3-1996/7

ARTICLE 4.2 QUALIFICATION (79/409/EEC)

Over winter the area regularly supports:

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

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

Annex C: APIS Data – Air Pollution Vulnerabilities: Durham Coast SAC and Northumbria Coast SPA

Durham Coast SAC									
Nutrient Nitrogen		Acidity	Ammonia	NOx			SO2		
Sensitivity	Critical Load			Sensitivity	Critical Level Annual Mean	Critical Level 24hr Mean	Sensitivity	Lichens Present	Critical Level Annual Mean
Yes	N/A	Not sensitive	Specific Advise should be sought	Specific Advise should be sought	30 µg NOx/m³	75 µg NOx/m³	Specific Advise should be sought	No	10-20 µg SO2/m³
Concentration and Deposition values across the site									
	Nitrogen Deposition	Acid Deposition		Ammonia Concentration (µg/m³)	Nitrogen Oxide (NOx) concentration (µg/m³)	Sulphur dioxide (SO2) (µg/m³)			
	(kgN/ha/yr)	Nitrogen (keq H+)	Sulphur (ha/yr)						
Maximum	16.94	1.21	0.37	1.3	58.03	0.57			
Minimum	10.08	0.72	0.24	0.55	10.59	0.34			
Average	13.02	0.93	0.28	0.88	15.85	0.4			

Ruddy Turnstone (Northumbrian Coast SPA)								
Nutrient Nitrogen	Interest Type	Broad habitat	Species' broad habitat sensitive to Nitrogen?	Relevant Nitrogen Critical Load Class	Empirical Critical Load kg N/ha/yr	Exceedance Impacts	Sensitive due to nitrogen impacts on broad habitat?	Reason
	Wintering	Littoral rock	Yes	Pioneer, low-mid, mid-upper saltmarshes	20-30	Increase late successional species, increase productivity increase in dominance of graminoids.	No	- No expected negative impact on species due to impacts on the species' broad habitat. - Potential positive impact on species due to impacts on the species' food supply.
Acidity	Interest Type	Broad habitat	Species' broad habitat sensitive to Acidity?	Acidity Class	Exceedance Impacts	Sensitive due to acidity impacts on broad habitat?	Reason	
	Wintering	Littoral rock	No	No sensitivity	Habitat not sensitive to acidification	No	No expected negative impact on the species due to impacts on the species' broad habitat.	
Ammonia	Interest Type	Broad habitat	Species' broad habitat sensitive to Ammonia?	Critical Level (µg NH3/m3 annual mean)		Sensitive due to nitrogen impacts on broad habitat?	Reason	
	Wintering	Littoral rock	Yes	3 (2-4 µg NH3 m-3)	No		- No expected negative impact on species due to impacts on the species' broad habitat. - Potential positive impact on species due to impacts on the species' food supply.	
NOx	Type	Broad habitat	Species' broad habitat sensitive to NOx?	Critical Level (µg NOx/m3 annual mean)	Critical Level (µg NOx/m3 24-hour mean)	Sensitive due to nitrogen impacts on broad habitat?	Reason	
	Wintering	Littoral rock	Yes	30	75	No	- No expected negative impact on species due to impacts on the species' broad habitat. - Potential positive impact on species due to impacts on the species' food supply.	
SO2	Interest Type	Broad habitat	Species' broad habitat sensitive to SO2?					
	Wintering	Littoral rock	No critical level has been assigned for this feature.					
Concentration and Deposition values across the site								
	Nitrogen Deposition		Acid Deposition		Ammonia Concentration (µg/m³)	Nitrogen Oxide (NOx) concentration (µg/m³)	Sulphur dioxide (SO2) (µg/m³)	
	(kgN/ha/yr)		Nitrogen (keq H+)	Sulphur (ha/yr)				
Maximum	15.4		1.1	0.36	1.33	60.54	1.43	
Minimum	8.54		0.61	0.14	0.37	6.04	0.12	
Average	11.21		0.8	0.21	0.69	10.1	0.34	

Purple Sandpiper (Northumbrian Coast SPA)							
Nutrient Nitrogen	Interest Type	Broad habitat	Species' broad habitat sensitive to Nitrogen?	Relevant Nitrogen Critical Load Class		Sensitive due to nitrogen impacts on broad habitat?	Reason
	Wintering	Littoral rock	No	Species' broad habitat not sensitive to eutrophication		No	No expected negative impact on species due to impacts on the species' broad habitat.
Acidity	Interest Type	Broad habitat	Species' broad habitat sensitive to Acidity?	Acidity Class	Exceedance Impacts	Sensitive due to acidity impacts on broad habitat?	Reason
	Wintering	Littoral rock	No	No sensitive	Habitat not sensitive to acidification	No	No expected negative impact on the species due to impacts on the species' broad habitat.
Ammonia	Interest Type	Broad habitat	Species' broad habitat sensitive to Ammonia?		Sensitive due to nitrogen impacts on broad habitat?		Reason
	Wintering	Littoral rock	The feature's habitat is not sensitive		No		No expected negative impact on species due to impacts on the species' broad habitat.
NOx	Type	Broad habitat	Species' broad habitat sensitive to NOx?		Sensitive due to nitrogen impacts on broad habitat?		Reason
	Wintering	Littoral rock	The feature's habitat is not sensitive		No		No expected negative impact on species due to impacts on the species' broad habitat.
SO2	Interest Type	Broad habitat	Species' broad habitat sensitive to SO2?				
	Wintering	Littoral rock	The feature's habitat is not sensitive				
Concentration and Deposition values across the site							
	Nitrogen Deposition	Acid Deposition		Ammonia Concentration (µg/m³)	Nitrogen Oxide (NOx) concentration (µg/m³)	Sulphur dioxide (SO2) (µg/m³)	
	(kgN/ha/yr)	Nitrogen (keq H+)	Sulphur (ha/yr)				
Maximum	15.4	1.1	0.36	1.33	60.54	1.43	
Minimum	8.54	0.61	0.14	0.37	6.04	0.12	
Average	11.21	0.8	0.21	0.69	10.1	0.34	

(<http://www.apis.ac.uk/src1>) – 13th July 2017.

Annex D: Other Plans and Projects – In Combination Assessment

National and Regional Plans and Projects					
Plan/Project	Summary/ Key Issues	HRA available?	HRA findings	Potential in-combination effects	Considered in combination?
Shoreline Management Plan 2 River Tyne to Flamborough Head (2007)	A Shoreline Management Plan (SMP) provides a large-scale assessment of the risks associated with coastal evolution and presents a policy framework to address these risks to people and the developed, historic and natural environment in a sustainable manner.	Yes	No adverse effects on the integrity of the sites or the implementation of the policies in the Shoreline Management Plan.	The Shoreline Management Plan policies refer to the protection and management of coastal areas. Therefore no in combination effects are predicted.	No
Northumbria River Basin Management Plan (2009)	This plan is about pressures facing the water environment in the Northumbria River Basin, and the actions that will address them. It focuses on the protection, improvement and sustainable use of the water environment. By 2015, 15 per cent of surface waters (rivers, lakes, estuaries and coastal waters) in this river basin district are going to improve for at least one biological, chemical or physical element.	Yes	The assessment concluded that the River Basin Management Plan is unlikely to have any significant negative effects on any Natura 2000 sites. The Plan itself does not require further assessment under the Habitats Regulations.	The HRA of the River Basin Management Plan identifies that before any plans, project or permissions are implemented they must be subject to the requirements of the Habitat Regulations and must undergo an appropriate assessment if they are likely to have a significant effect. Therefore it is considered that the plan will not contribute to in combination effects.	No
Keep Tyne and Wear Moving – Third Local Transport Plan (LTP3) for Tyne and Wear - Strategy 2011-2021 and Delivery Plan 2011-2014	The key strategic objectives of LTP3 strategy are to: • Support the economic development, regeneration and competitiveness of Tyne and Wear, improving the efficiency, reliability and integration of transport networks across all modes • Reduce carbon emissions produced by local transport movements, and to strengthen networks against the effects of climate change • Contribute to healthier and safer communities in Tyne and Wear, with higher levels of physical activity and personal security • Provide a fairer Tyne and Wear, providing everyone with the opportunity to achieve their full potential and access a wide range of employment, training, facilities and services • Protect, preserve and enhance our natural and built environments, improving quality of life and creating high quality public places.	Yes	The HRA concluded that there will be no LSE on the Northumbria Coast SPA and Durham Coast SAC. This is due to: • Schemes are minor improvements to existing roads, unlikely to lead to an increase in visitors and LSE from recreation impacts. • The sites are unlikely to be affected by air pollution due to distance from schemes. • Changes to hydrology are unlikely as qualifying features of the sites are not linked to groundwater levels or flows. • LSE from pollution construction and operation are not likely because of their distances from the SPA and Ramsar site. • There will not be any habitat loss from sites, nor Functional land.	The projects and schemes identified in the LTP are not considered to contribute to in combination effects.	No
More and Better Jobs: A Strategic Economic Plan for the North East (2014)	The strategic economic plan builds on the North East Independent Economic Review to provide a strategic plan for economic growth in the North East. The strategy has a vision of ensuring that the North East economy will provide one million jobs by 2024.	No	N/A	The Strategic Economic Plan identifies a number of projects within South Tyneside including, IAMP, road and transport Improvements. It is considered that	Yes

				these schemes are likely to be supported through the forthcoming Local Plan. The plan also identifies a predicted growth in Tourism which may increase pressures for recreational disturbance on the Northumbria Coast SPA and Durham Coast SAC.	
Joint Local Aggregates Assessment for County Durham, Northumberland and Tyne and Wear (2013)	Sets out the current and future aggregate supply for Country Durham, Northumberland and Tyne and Wear.	No	N/A	The aggregates assessment does not allocate new sites for mineral workings. However, it does raise some issues around the exhaustion of resources at Marsden Quarry. The Mineral sites will be considered as part of the Local Plan. No in combination effects.	No
South Tyne & Wear Waste Management Partnership - Joint Municipal Waste Management Strategy review 2012	The South Tyneside Joint Municipal Waste Management Strategy is a 20 year strategy. This review has the following objectives: • Reduce amount of waste generated. Targets for recovery of municipal waste: - 67% by 2015 - 75% by 2020 • Reuse waste – recycle and /or compost waste as far as practical. • Recover energy from waste and. • Manage and dispose of waste within the Partnership area.	No	N/A	The document provides strategic policies to deal with the waste in the south of Tyne and Wear area. No in combination effects are expected.	No
A19 Testos Junction Improvements	The Highways Agency are proposing to improve the A19 by constructing a flyover to take the A19 over the Testos junction. The A19 carriageway will move slightly to the west and will be raised above ground on an embankment. The works are due to commence winter 2018/19.	No	N/A	It is considered that this scheme is likely to be supported through the forthcoming Local Plan. and likely significant effects will be considered as part of the South Tyneside Local Plan.	No
Neighbouring Authorities Plans and Projects					
Plan/Project	Summary/ Key Issues	HRA available?	HRA findings	Potential in-combination effects	Considered in combination?
Sunderland Draft Core Strategy (Revised Preferred Options) 2013	Sets out the overarching strategic planning framework for the development of Sunderland until 2032. Key principles include: • 15,000 new homes over the next 20 years. • Washington will be a key provider of land for economic development. The International Advanced Manufacturing Park (IAMP) has been identified north of Nissan.	Yes	The HRA undertaken on the Preferred Options concluded that the Core Strategy would have no Likely Significant Effects (LSE) on the European Sites. Natural England raised concerns that due to the proximity of the Sunderland Growth Area to the Northumbria Coast	Proposed housing development will increase the number of residential areas in close proximity the Northumbria Coast SPA. Furthermore, regeneration of the seafront may also increase visitor numbers to the protected sites. This may add to 'in	Yes

	• Regeneration in the Coalfield will focus on its potential as an area for new housebuilding~3,000 • In North Sunderland the emphasis will be on the regeneration of the Seafront.		SPA, LSE cannot be ruled out, and therefore mitigation measures should be identified.	combination' levels of recreational disturbance alongside the South Tyneside Local Plan.	
Planning for the Future Core Strategy & Urban Core Plan for Gateshead & Newcastle upon Tyne 2010-2030 (2015)	Provides the overarching strategic planning framework for Gateshead and Newcastle and will be included as part of a new Local Plan. The plan seeks to deliver: • Up to 30,000 new homes • 22,000 new jobs • 150ha of employment land	Yes	The HRA concluded that the potential effects on N2K sites were indirect and not considered to be significant and appropriate assessment was not required.	It is not considered that the Newcastle Gateshead Core Strategy will contribute to in combination effects on the Durham Coast SAC and Northumbria Coast SPA.	No
North Tyneside Local Plan (2017)	The Consultation Draft plan provides the strategic and land use policies for North Tyneside. Key proposals include: • Provide 12,700 new jobs • Provide 146 ha of new land for economic development • Supply 10,200 new homes • Support regeneration of areas including the coast • Promote the borough's tourism potential.	Yes	The HRA identified that although most policies in the Draft Plan would not result in likely significant effects, policies supporting housing, tourism and development on the coast may result in some effects.	The draft plan includes a policy which aims to protect European Sites and supports the implementation of 'mitigation, avoidance or compensatory measures'. However, the document acknowledges that specific mitigation measures are difficult to implement at this stage of the plan process. Therefore it is prudent to consider these impacts in combination with the South Tyneside Local Plan.	Yes
South Tyneside Plans					
Plan/Project	Summary/ Key Issues	HRA available?	HRA findings	Potential in-combination effects	Considered in combination?
South Shields 365 Master Plan	The Master Plan includes improved links between the Town Centre, Riverside and Foreshore will result in a positive visitor experience. Key proposals include: • A new Central Library and Digital Media Centre • Provide an enhanced market offer • Provide a new central consolidated travel interchange • Improve the retail and leisure offer in the town • Potential new supermarket	No	N/A	It is considered that this scheme is likely to be supported through the forthcoming Local Plan and likely significant effects will be considered as part of the South Tyneside Local Plan.	No

Annex E -Survey Site Assessments – Visitor and Non-breeding Bird Survey Summaries

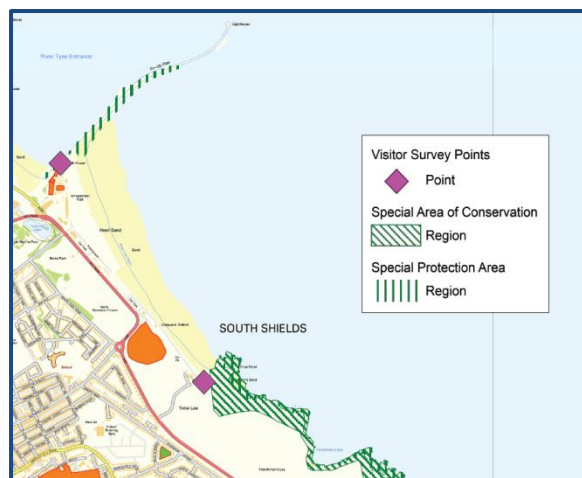


Figure 9: Tyne to Frenchman's Bay Survey Area

Designations within Survey Area:

- Northumbria Coast SPA
- Durham Coast SAC
- Durham Coast SSSI

1. Visitor Survey Area: Tyne to Frenchman's Bay

- E.1 The Tyne to Frenchman's Bay site begins in the north at South Shields Pier. The site is dominated by a wide beach, named Sandhaven, which has long stretches of golden sand and substantial sand dunes. Further south, at Trow Point there are cliffs which lead up on to the Leas. Part way along this site is a small beach, known as Frenchman's Bay; this marks the end of this survey area. The adjacent postcode areas are NE33 2 and NE33 3.
- E.2 The visitors to this site are characterised as dog walkers who come from a wide area and enjoy having the open space on the beach to let their dogs run around off the leash. Respondents show some willingness to walk their dogs at more convenient locations, should they become available. However the wide geographical spread of visitors to this location may make targeting the open space provision challenging.

Key Findings

- 79% of respondents were at the coast for the purpose of walking their dogs (the highest proportion from all sites), 18% had come to go walking.
- According to 2015/16 data daily visitors to this site are the most likely to make recurring visits, the 28 daily visiting respondents make a total of 57 visits to the site.
- 90% of all interviewees (2014/15 survey) intended to visit the beach on their visit. This site has the highest proportion of beach visitors of the four sites.
- When asked what the main reason for choosing this location was, the majority (32%) said it was because there was plenty of space for their dog to run around. More people cited this as the reason for visiting than at any other location.
- This site has the greatest number of visitors (60%) who drive to access the site. However it also has the highest number of visitors from the neighbouring local postcodes at 73%.

Dog Walkers

- 56% of people walk their dogs every day or almost every day at this site, 15% walk the dogs 2 to 3 times a week, 13% come about once a week.



Fig.E.2 Survey Area 1 / Segments 1-5

- The dog walkers which visit this area come from a wide range of places across the borough, the highest numbers of dog walkers come from adjoining NE33 2, however, this only accounts for 13% of the dog walking visitors. Around half the respondents came from the South Shields area. Whereas a number of people came from further afield such as Durham and Darlington.
- Whilst on the beach 90% of people let their dogs off the lead.

Alternative Sites

- If a suitable area of green space was available close to home 64% of responding dog walkers said they may use this as an alternative to walking their dog at the coast (32% most of the time and 32% some of the time). 28% said it would be unlikely to change their behaviour. When asked what might attract them to go somewhere else other than the coast 74% said somewhere more convenient or closer to home (2014/15 survey).

Bird Survey Areas: Survey Area 1 / Segments 1-5

Area bird presence summary (2015/16)

Sector	Habitat	Evaluation
1	Sandy beach with rocks near the piers	Low levels of bird activity along the beach – small numbers of sanderling.
2	Pier, with sea defence rock-armour along southern flank	Used by diverse range of species for feeding and roosting.
3	Sandy beach	Low levels of bird activity along the beach – small numbers of sanderling, oystercatcher and ringed plover.
4	Cliffs with bedrock and boulders	Trow Point is a well-used roost for oystercatcher and redshank. Some bays are used by small numbers of feeding and roosting waders.
5	Cliffs with bedrock and boulders and some sand	Small numbers of oystercatcher, turnstone and redshank use some intertidal areas.

Bird Counts: Key Species in Survey Area

Purple Sandpiper

- The 2014/15 survey identified Sector 2 and 3 as being amongst the most important sectors for purple sandpiper, with a peak count of 39 birds recorded roosting in Sector 3.
- Sector 2 and 4 were identified as important roosting and foraging sites in the 15/16 survey, and a peak count of 10 birds was recorded throughout Area 1.

Turnstone

- Turnstone has been identified as being present in this survey area; although this is not a significant area for foraging or roosting.

Sanderling

- A peak count of 72 birds was recorded roosting in Sector 2. This sector was identified as one of the most important sectors for Sanderling in the 2014/15 surveys.

Ringed Plover

- Ringed Plover have been regularly recorded throughout this survey area particularly in Sectors 2, 3, 4 and 5.

Oystercatcher

- A peak count of 150 Oystercatchers was recorded in Sector 4 during the 2015/16 survey.

Black-tailed Godwit

- Black-tailed Godwits have been recorded infrequently through Area 1.

Disturbance Summary (2015/16)

Sector	Habitat	Evaluation
1	Sandy beach with rocks near the piers	Regular dog walking and recreational walking activity, with anglers occasionally using the pier.
2	Pier, with sea defence rock-armour along southern flank	Regular activity from anglers, but does not lead to significant disturbance. Movement from walkers lead to eight actual disturbance events.
3	Sandy beach	Extensive dog and recreational walking activity.
4	Cliffs with bedrock and boulders	Area used mostly by dog walkers and recreational walkers, with occasional use by cyclists.
5	Cliffs with bedrock and boulders and some sand	Area used mostly by dog walkers and recreational walkers, with occasional use by cyclists.

Recorded Disturbance Events

- Area 1 was identified as the most disturbed survey area across the Sunderland and South Tyneside coast in the 2015/16 survey. This related to both actual and potential disturbance events.
- Sector 3 was the most disturbed sector across all sites in 2015/16, with 12.1% of actual and 25.1% of potential disturbance events taking place.
- Sector 3 was the third most disturbed sector in the 2014/15 survey.
- Sector 3 is also the most disturbed area for actual and potential incidents caused by dogs of the lead.

2. Frenchman's Bay to Lizard Point – 104 Respondents

- E.3 The Frenchman's Bay to Lizard Point site begins at half way along the Leas Frenchman's Bay, there is a coastal path that follows the clifftops along the Leas. At the end of the Leas the path continues along the cliff and Marsden Bay. Here there are steep cliffs with a gently sloping 'wave-cut' platform at their base.
- E.4 The cliffs at Marsden hold the largest seabird colony in the north east being home to kittiwakes, fulmars, cormorants and herring gulls along with razorbills, shags and the SPA linked over-wintering birds. The cliff area on the Leas is part of the SPA designation.

Key Findings

- 69% of respondents had come to the coast for the purpose of walking their dogs, 25% came to go walking. The remainder were carrying out activities such as bird watching and having quiet time.
- Only 43% of all interviewees intended to visit the beach on their visit (2014/15 survey), by far the lowest proportion of the four sites.
- Out of all the sites, the highest proportion of people (44%) travel to this site on foot. 69% of visitors come from the neighbouring postcode.
- People are less likely to visit this site more than once a day than any of the other sites. The 2015/16 data shows that out of 29 daily visiting respondents will make a total of 42 visits a day.

Dog Walkers

- Out of all the sites, this site has the greatest proportion of dog walkers whom come from the immediate local area. 43% were walking their dogs from the adjoining post code (NE34 7) with the second highest number of people (13%) coming from the neighbouring inland postcode (NE34 6).
- 56% of people walk their dogs at the site every day or almost every day at this site. 15% of all dog walking respondents walk the dogs 2 to 3 times a week, 13% come about once a week.
- Whilst on the beach 76% of people let their dogs off the leash, this is significantly lower than at other sites.

Alternative Sites

- When asked what the main reason for choosing this location was, the majority (39%) said the beach or sea and 13% said it was convenient/close to home (2014/15 data).



Figure E3: Frenchman's Bay to Lizard Point Survey Area

Designations within Survey Area:

- Northumbria Coast SPA
- Durham Coast SAC
- Durham Coast SSSI

- If a suitable area of green space was available close to home 64%% of responding dog walkers said they may use this as an alternative to walking their dog at the coast (30% most of the time and 34% some of the time). 36% said it would be unlikely to change their behaviour.
- When asked what might attract them to go somewhere else other than the coast 81% of respondents said somewhere more convenient or closer to home (2014/15).

Bird Survey Areas: Survey Area 2 / Segments 6-7

Area bird presence summary (2015/16)

Sector	Habitat	Evaluation
6	Cliffs with shingle beach	Shingle beach is rarely used – oystercatcher, redshank and turnstone use the intertidal areas at the southern end of the bay.
7	Cliffs with some shingle, boulders and bedrock	Small numbers of oystercatcher, turnstone and redshank use some intertidal areas.

Bird Counts: Key Species in Survey Area

Purple Sandpiper

- The 2015/16 survey identified the presence of purple sandpiper in all survey areas; however only one bird was recorded in Area 2. The 2014/15 survey did not record any birds in Sector 6.

Turnstone

- Turnstone have been identified in this sector in both surveys – however, numbers are not significant.

Oystercatcher

- A peak count of 127 Oystercatchers were recorded in Sector 7 during the 2015/16 survey.

Disturbance Summary (2015/16)

Sector	Habitat	Evaluation
6	Cliffs with shingle beach	Area used mostly by dog walkers and recreational walkers, with occasional use by cyclists. No actual disturbance events recorded.
7	Cliffs with some shingle, boulders and bedrock	Levels of disturbance are generally low, with dog walking and recreational walking most frequently recorded.

Recorded Disturbance Events

- The 2014/15 survey recorded 144 disturbance events, making it the 6th most disturbed sector; however, the 2015/16 survey did record any actual disturbance events.
- Both sectors had were recorded as having relevantly low levels of actual and potential disturbance events.

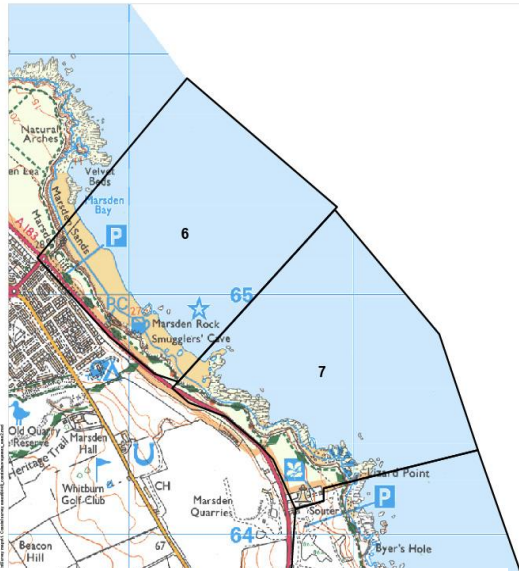


Fig.E.4 Survey Area 2 / Segments 6-7

*NB Sector 8 also falls within Area 2; however it is beyond the area covered by the Visitor surveys.

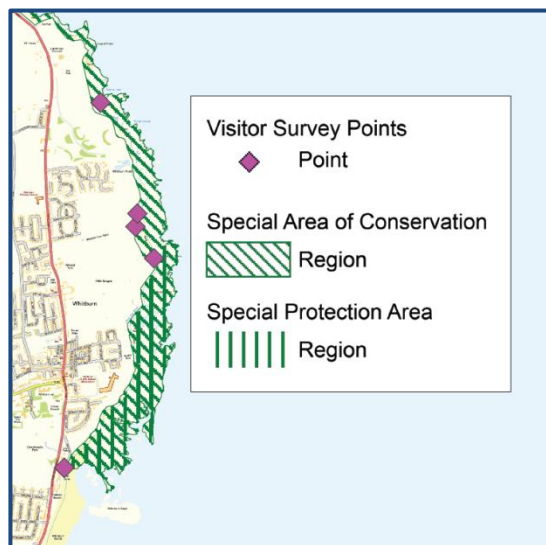


Figure E5: Lizard Point to South Bents Survey Area

Designations within Survey Area:

- Northumbria Coast SPA
- Durham Coast SAC
- Durham Coast SSSI

3. Lizard Point to South Bents – 98 Respondents

- E.5 The Lizard Point to South Bents site begins at the lighthouse at Lizard Point and heads south along the coastline of Whitburn Village and down to the sandy coastline of Whitburn Bay/Seaburn Beach in Sunderland (Postcode area SR6 7).
- E.6 There is a green buffer which separates Whitburn from the coast which forms part of the Green Belt, this is formed by Whitburn Coastal Park to the north and a former Ministry of Defence rifle range and agricultural fields around the middle. There is a narrow cliff path which provides walkers right of way along the coast.

Key Findings

- 64% of respondents were visiting the coast for the purpose of walking their dogs, 28% had come to go walking.
- 64% of all interviewees intended to visit the beach on their visit (2014/15 data).
- 67% were walking their dogs from the adjoining post code (SR6 7) with the second highest number of people (9%) coming from the neighbouring postcode (SR6 8) which is located within Sunderland.

Dog Walkers

- 56% of people walk their dogs at the site every day or almost every day at this site. However this increases for locals (from SR6 7), as 74% walk their dog(s) every day or almost every day. 24% of all dog walking respondents walk the dogs 2 to 3 times a week, 10% come about once a week.
- Whilst on the beach 90% of people let their dogs off the leash. This is the joint highest proportion of all four sites (joint highest with Tyne to Frenchman's Bay).
- Out of all four sites, the highest proportion (17%) of people at this site said they walked their dogs here because there is no open green space close to home or nowhere suitable close to home (2014/15 data).

Alternative Sites

- 43% of people in this location cited that the main reason to visit this site was because there was no open green space close to home. Far more people cited this reason at this location than any of the other sites (2014/15 data).
- If a suitable area of green space was available close to home 44% of responding dog walkers said they may use this as an alternative to walking their dog at the coast (17% most of the time and 27% some of the time). 51% (the highest number of all sites) said it would be unlikely to change their behaviour. This is perhaps surprising considering the number of people who said they walked their dogs here because there was nowhere locally to do so.



Fig.E.5 & E.6
Survey Area 2 & 3 / Segments 8-12

- However, 73% of respondents said that having somewhere more convenient might attract them to go somewhere else rather than the coast; around half of these people were daily dog walkers who come from the adjoining SR6 7 postcode (2014/15 data).

Bird Survey Areas: Survey Area 2 / Segments 6-7

Area bird presence summary (2015/16)

Sector	Habitat	Evaluation
8	Cliffs with some shingle, boulders and bedrock: arable field	Small numbers of oystercatcher, turnstone and redshank use some intertidal areas. A rock island at the southern end of the section is an important mixed species roost. The arable field is regularly used by curlew. This area is of significance and known locally as Jackie's beach.
9	Pasture field	Important feeding area and roost location for large numbers of many target species. Of particular importance for golden plover.
10	Cliffs with some shingle, boulders and bedrock, intertidal zone beyond the cliff.	Important low tide foraging and roosting location for a wide variety of species including turnstone and purple sandpiper.
11	Cliffs with some shingle, boulders and bedrock, intertidal zone beyond cliff.	Important low tide foraging and roosting location for a wide variety of species including turnstone and purple sandpiper.
12	Small areas of rocky outcrop at both the northern and southern ends, with extensive areas of tidal sand in between.	Small numbers of wading bird species using the rocky areas, significant feeding area for sanderling at the strand line.

Bird Counts: Key Species in Survey Area

Purple Sandpiper

- Sectors 10 and 11 were identified as being important for purple sandpiper in both the 2014/15 and 2015/16 survey.
- An average peak count of 3.7 birds was recorded in Sector 11, with the peak count of 24 individuals in November 2015.

Turnstone

- This area has been identified as being important for turnstone in both surveys, with high peak counts.
- Sectors 8,9,10 and 11 have been identified as important for roosting and foraging.
- The 2014/15 survey recorded a peak count of 90 birds roosting in Sector 8– equivalent to 5.2% of the SPA population; and a peak count of 142 feeding birds in Sector 10 – equivalent to 8.2% of the SPA population.

Sanderling

- In both surveys Sectors 10, 11 and 12 have been identified as being important areas for sanderling.
- Area 3 had an average peak of 52 individuals in the 2015/16 survey and a peak count of 109 individuals was recorded in Sector 12 during January 2016.

Knot

- Knot were recorded in low numbers throughout the whole survey area; however they were recorded in Sectors 10 and 11, with a peak count of 27 birds recorded feeding in Sector 11.

Curlew

- The 2015/16 survey consistently recorded high numbers of curlew in Sectors 8 and 9.
- Curlews were also recorded using the rocky shore in Sector 10.
- A peak count of 196 individuals was recorded in Sector 9 in January 2016.
- They were also recorded using an agricultural field to the west of Sector 9.

Redshank

- Redshanks were recorded in greatest numbers in Sectors 8, 10 and 11.
- Sector 10 recorded an average peak count of 102 birds and a peak count of 197 birds in February 2015.

Ringed Plover

- Ringed Plover were regularly recorded in Sectors 9, 10 and 11.
- An average peak count of 27 birds was recorded in Sector 10 and a peak count of 41 individual birds recorded in Sector 11.

Oystercatcher

- A peak count of 120 Oystercatchers were recorded in Sectors 10 and 11 during the 2015/16 survey.

Golden Plover

- Sectors 8, 9, 10 and 11 are identified as being important for Golden Plover.
- An average peak count of 410 individuals was recorded in Sectors 8 – 10. A peak count of 2600 birds was recorded in November 2015. This represents 1.04% of the estimated UK non-breeding population.
- 13 -59 individual birds were regularly recorded in Sector 11.

Black-tailed Godwit

- Peak counts of 4 and 6 individuals were recorded in Sector 11.

Dunlin

- Peak counts were recorded in Sectors 9, 10 and 11. With 59 birds recorded in Sector 9, an average peak count of 30 and a peak count of 95 individuals recorded in Sector 10; and 61 birds recorded in Sector 11.

Lapwing

- An average peak count of 111 individuals was recorded in Sector 9.
- 89 individuals were recorded in Sector 10.

Disturbance Summary (2015/16)

Sector	Habitat	Evaluation
8	Cliffs with some shingle, boulders and bedrock: arable field	Area used mostly by dog walkers and recreational walkers, with occasional use by cyclists. Dog walking accounted for twenty actual disturbance events.
9	Pasture field	Very few disturbance events recorded. Horses occasionally tended to by owners.
10	Cliffs with some shingle, boulders and bedrock, intertidal zone beyond the cliff.	Activity generally in association with the coastal path.
11	Cliffs with some shingle, boulders and bedrock, intertidal zone beyond cliff.	Activity generally in association with the coastal path.
12	Small areas of rocky outcrop at both the northern and southern ends, with extensive areas of tidal sand in between.	Six hundred and sixty potential disturbance events from dog walking activity recorded during the survey period. Generally well used area regardless of tide state and time of day.

Recorded Disturbance Events

- The 2014/15 survey identified sectors 8 and 12 as being within the top 5 disturbed sites across the coastal area. Sector 12 was noted as having an ‘almost constant presence of people’.
- Sector 12 recorded the greatest number of potential disturbance events from dogs of the leash in the 2015/26 survey.

4. South Bents to Sunderland North Pier – 153 Respondents (24 from South Tyneside)

E.7 Whilst this site is in Sunderland it has been assessed to see the impact of visitors from neighbouring South Tyneside postcodes. The other sites in Sunderland had only a few visitors from South Tyneside so have not been considered further. The site largely consists of two sandy beaches, Seaburn and Roker with a rocky outcrop called Parson’s Rocks which is designated as part of the SPA.

Key Findings

- 58% of all respondents visited this area for the purpose of walking their dogs, 35% come to go walking.
- 85% of all interviewees intended to visit the beach on their visit (2014/15 data).





Figure 10: South Bents to Sunderland North Pier Survey Area (Magic, 2016)

Dog Walkers

- The dog walkers which visit this area come from a wide range of places, the majority being from across Sunderland. 14% were walking their dogs from South Tyneside with 7% coming from the adjoining South Tyneside postcode (SR6 7).
- 62% of South Tyneside residents walk their dogs at the site every day or almost every day. 21% come two to three times a week.
- 86% of South Tyneside dog walkers let their dogs off the lead on the beach (2014/15 data).

Alternative Sites

- If a suitable area of green space was available close to home 80% of responding South Tyneside dog walkers (2014/15 data) said they may use this as an alternative to walking their dog at the coast. This is the highest of all four sites analysed, however this site is also the furthest away from the majority of residents being located largely in Sunderland.

Annex F: Preliminary Screening for Likely Significant Effects of the SLR (either alone or in-combination) – Site by Site Analysis

Site Ref	Post code	% of Coastal Visitors from Post code	Closest Survey Area	Distance to Nearest Protected Site	Homes Capacity	Potential new people	Potential new dogs	Potential New Cats (with 400m only)	Habitat Loss and Fragmentation of Habitats (Under 0.2km)	Primary Recreation and Urbanisation Zone (under 2km)	Disturbance – Recreational and Urbanisation (Over 10 new dwellings)	Air Quality	Hydrology	Water Quality	Climate Change
OSS15	NE33 3	7.3	Tyne to Frenchman's Bay	0.3	9	19	3	2	No LSE	Potential LSE	No LSE	Potential LSE	Potential LSE	Potential LSE	No LSE
OSS54	NE34 7	24.2	Tyne to Frenchman's Bay	0.3	38	81	13	6	No LSE	Potential LSE	Potential LSE	Potential LSE	Potential LSE	Potential LSE	No LSE
OSS60	NE34 7	24.2	Tyne to Frenchman's Bay	0.3	14	30	5	2	No LSE	Potential LSE	Potential LSE	Potential LSE	Potential LSE	Potential LSE	No LSE
WH30	SR6 7	20.5	Lizard Point to South Bents	0.5	16	34	5	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
WH8	SR6 7	20.5	Lizard Point to South Bents	0.5	22	47	7	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
WH9b	SR6 7	20.5	Lizard Point to South Bents	0.5	16	34	5	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS8	NE33 4	3.9	Tyne to Frenchman's Bay	0.6	5	11	2	n/a	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE	No LSE
WH10	SR6 7	20.5	Lizard Point to South Bents	0.6	5	11	2	n/a	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE	No LSE
WH9a	SR6 7	20.5	Lizard Point to South Bents	0.6	34	73	11	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
ISS29	NE33 2	8.7	Tyne to Frenchman's Bay	0.7	4	9	1	n/a	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE	No LSE
OSS16a	NE33 3	7.3	Tyne to Frenchman's Bay	0.7	77	166	26	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE

Site Ref	Post code	% of Costal Visitors from Post code	Closest Survey Area	Distance to Nearest Protected Site	Homes Capacity	Potential new people	Potential new dogs	Potential New Cats (with 400m only)	Habitat Loss and Fragmentation of Habitats (Under 0.2km)	Primary Recreation and Urbanisation Zone (under 2km)	Disturbance – Recreational and Urbanisation (Over 10 new dwellings)	Air Quality	Hydrology	Water Quality	Climate Change
			an's Bay												
ISS14	NE33 2	8.7	Tyne to Frenchman's Bay	0.8	15	32	5	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
ISS28	NE33 2	8.7	Tyne to Frenchman's Bay	0.8	4	9	1	n/a	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE	No LSE
ISS4	NE33 2	8.7	Tyne to Frenchman's Bay	0.8	70	150	23	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
WH25	SR6 7	20.5	Lizard Point to South Bents	0.8	24	51	8	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
ISS15	NE33 2	8.7	Tyne to Frenchman's Bay	0.9	54	116	18	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS16	NE33 3	7.3	Tyne to Frenchman's Bay	0.9	202	431	67	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
WH17a	SR6 7	20.5	Lizard Point to South Bents	0.9	120	257	40	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
WH17b	SR6 7	20.5	Lizard Point to South Bents	0.9	71	152	24	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
ISS11	Ne33 1	0.6	Tyne to Frenchman's Bay	1	18	39	6	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
ISS16	NE33 2	8.7	Tyne to Frenchman's Bay	1	45	95	15	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
ISS16a	NE33 2	8.7	Tyne to Frenchman's Bay	1	77	165	25	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
WH19	SR6 7	20.5	Lizard Point to	1	88	188	29	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE

Site Ref	Post code	% of Costal Visitors from Post code	Closest Survey Area	Distance to Nearest Protected Site	Homes Capacity	Potential new people	Potential new dogs	Potential New Cats (with 400m only)	Habitat Loss and Fragmentation of Habitats (Under 0.2km)	Primary Recreation and Urbanisation Zone (under 2km)	Disturbance – Recreational and Urbanisation (Over 10 new dwellings)	Air Quality	Hydrology	Water Quality	Climate Change
			South Bents												
ISS18	NE33 2	8.7	Tyne to Frenchman's Bay	1.1	98	210	32	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
ISS12	NE33 2	8.7	Tyne to Frenchman's Bay	1.2	45	96	15	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
ISS2	NE33 1	0.6	Tyne to Frenchman's Bay	1.2	18	39	6	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
ISS21	NE33 2	8.7	Tyne to Frenchman's Bay	1.2	2	4	1	n/a	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE	No LSE
ISS27	NE33 2	8.7	Tyne to Frenchman's Bay	1.2	3	6	1	n/a	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE	No LSE
OSS5	NE33 5	2.0	Tyne to Frenchman's Bay	1.2	8	17	3	n/a	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE	No LSE
OSS51	NE34 7	24.2	Tyne to Frenchman's Bay	1.2	47	101	16	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
ISS10	Ne33 1	0.6	Tyne to Frenchman's Bay	1.3	7	15	2	n/a	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE	No LSE
ISS19	NE33 4	3.9	Tyne to Frenchman's Bay	1.3	15	32	5	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
ISS5a	NE33 1	0.6	Tyne to Frenchman's Bay	1.4	6	12	2	n/a	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE	No LSE
OSS10	NE33 4	3.9	Tyne to Frenchman's Bay	1.4	84	180	28	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
ISS6	NE33 1	0.6	Tyne to Frenchman's Bay	1.5	24	51	8	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS1b	NE33 1	0.6	Tyne to	1.6	174	372	58	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE

Site Ref	Post code	% of Costal Visitors from Post code	Closest Survey Area	Distance to Nearest Protected Site	Homes Capacity	Potential new people	Potential new dogs	Potential New Cats (with 400m only)	Habitat Loss and Fragmentation of Habitats (Under 0.2km)	Primary Recreation and Urbanisation Zone (under 2km)	Disturbance – Recreational and Urbanisation (Over 10 new dwellings)	Air Quality	Hydrology	Water Quality	Climate Change
			Frenchman's Bay												
OSS74	NE34 6	8.1	Tyne to Frenchman's Bay	1.6	2	4	1	n/a	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE	No LSE
OSS1c	NE33 1	0.6	Tyne to Frenchman's Bay	1.7	74	159	25	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS1d	NE33 1	0.6	Tyne to Frenchman's Bay	1.7	38	82	13	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS77	NE33 4	3.9	Tyne to Frenchman's Bay	1.7	15	31	5	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
ISS8	Ne33 1	0.6	Tyne to Frenchman's Bay	1.8	5	11	2	n/a	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE	No LSE
BC44	SR6 7	20.5	Lizard Point to South Bents	1.9	234	501	78	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS69	NE34 0	4.2	Tyne to Frenchman's Bay	1.9	17	35	5	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS2	NE33 1	0.6	Tyne to Frenchman's Bay	2	50	106	16	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS3	NE33 1	0.6	Tyne to Frenchman's Bay	2	20	42	7	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS3a	NE33 1	0.6	Tyne to Frenchman's Bay	2	12	25	4	n/a	No LSE	Potential LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS73	NE33 4	3.9	Tyne to Frenchman's Bay	2	3	6	1	n/a	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE	No LSE
OSS18	NE34 0	4.2	Frenchman's Bay to Lizard	2.1	15	32	5	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE

Site Ref	Post code	% of Costal Visitors from Post code	Closest Survey Area	Distance to Nearest Protected Site	Homes Capacity	Potential new people	Potential new dogs	Potential New Cats (with 400m only)	Habitat Loss and Fragmentation of Habitats (Under 0.2km)	Primary Recreation and Urbanisation Zone (under 2km)	Disturbance – Recreational and Urbanisation (Over 10 new dwellings)	Air Quality	Hydrology	Water Quality	Climate Change
			Point												
OSS19c	NE34 0	4.2	Frenchman's Bay to Lizard Point	2.1	63	134	21	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS19	NE34 0	4.2	Frenchman's Bay to Lizard Point	2.2	159	340	53	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC48c	NE34 8	4.8	Lizard Point to South Bents	2.3	134	287	44	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS19a	NE34 0	4.2	Frenchman's Bay to Lizard Point	2.3	26	56	9	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC57b	SR6 7	20.5	Lizard Point to South Bents	2.4	49	105	16	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS19b	NE34 0	4.2	Frenchman's Bay to Lizard Point	2.4	45	96	15	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS75	NE33 5	2.0	Tyne to Frenchman's Bay	2.5	4	9	1	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
BC49	SR6 7	20.5	Lizard Point to South Bents	2.7	2	4	1	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
OSS23	NE33 4	3.9	Tyne to Frenchman's Bay	2.7	15	32	5	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS21	NE33 5	2.0	Frenchman's Bay to Lizard Point	2.8	32	68	11	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE

Site Ref	Post code	% of Costal Visitors from Post code	Closest Survey Area	Distance to Nearest Protected Site	Homes Capacity	Potential new people	Potential new dogs	Potential New Cats (with 400m only)	Habitat Loss and Fragmentation of Habitats (Under 0.2km)	Primary Recreation and Urbanisation Zone (under 2km)	Disturbance – Recreational and Urbanisation (Over 10 new dwellings)	Air Quality	Hydrology	Water Quality	Climate Change
BC46a	SR6 7	20.5	Lizard Point to South Bents	2.9	22	46	7	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS64	NE34 0	4.2	Tyne to Frenchman's Bay	2.9	50	107	17	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC47a	SR6 7	20.5	Lizard Point to South Bents	3	15	31	5	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC47b	SR6 7	20.5	Lizard Point to South Bents	3	5	10	1	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
BC48b	NE34 8	4.8	Lizard Point to South Bents	3	77	165	25	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS62	NE34 0	4.2	Tyne to Frenchman's Bay	3	41	88	14	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS72	NE33 4	3.9	Tyne to Frenchman's Bay	3	6	13	2	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
BC46b	SR6 7	20.5	Lizard Point to South Bents	3.1	15	32	5	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS46b	NE34 8	4.8	Tyne to Frenchman's Bay	3.1	39	84	13	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS63	NE34 0	4.2	Tyne to Frenchman's Bay	3.1	15	32	5	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC33a	NE36 0	3.1	South Bents to Sunderland North	3.2	56	120	19	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE

Site Ref	Post code	% of Costal Visitors from Post code	Closest Survey Area	Distance to Nearest Protected Site	Homes Capacity	Potential new people	Potential new dogs	Potential New Cats (with 400m only)	Habitat Loss and Fragmentation of Habitats (Under 0.2km)	Primary Recreation and Urbanisation Zone (under 2km)	Disturbance – Recreational and Urbanisation (Over 10 new dwellings)	Air Quality	Hydrology	Water Quality	Climate Change
			Pier												
BC33b	NE36 0	3.1	South Bents to Sunderland North Pier	3.2	44	94	15	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS29	NE33 5	2.0	Frenchman's Bay to Lizard Point	3.2	5	11	2	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
OSS46a	NE34 8	4.8	Tyne to Frenchman's Bay	3.2	28	60	9	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS61	NE34 0	4.2	Tyne to Frenchman's Bay	3.2	72	154	24	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC34a	NE36 0	3.1	South Bents to Sunderland North Pier	3.3	31	66	10	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC31b	NE36 0	3.1	South Bents to Sunderland North Pier	3.4	38	81	13	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC36a	NE36 0	3.1	South Bents to Sunderland North Pier	3.4	23	49	8	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC36b	NE36 0	3.1	South Bents to Sunderland North Pier	3.4	26	56	9	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS24	NE34 0	4.2	Frenchman's Bay to Lizard	3.4	32	68	11	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE

Site Ref	Post code	% of Costal Visitors from Post code	Closest Survey Area	Distance to Nearest Protected Site	Homes Capacity	Potential new people	Potential new dogs	Potential New Cats (with 400m only)	Habitat Loss and Fragmentation of Habitats (Under 0.2km)	Primary Recreation and Urbanisation Zone (under 2km)	Disturbance – Recreational and Urbanisation (Over 10 new dwellings)	Air Quality	Hydrology	Water Quality	Climate Change
			Point												
OSS32	NE34 0	4.2	Tyne to Frenchman's Bay	3.4	25	54	8	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC37	NE36 0	3.1	South Bents to Sunderland North Pier	3.5	138	295	46	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS34	NE34 0	4.2	Tyne to Frenchman's Bay	3.5	7	15	2	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
OSS58	NE34 0	4.2	Tyne to Frenchman's Bay	3.5	6	13	2	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
OSS44	NE34 8	4.8	Tyne to Frenchman's Bay	3.6	19	41	6	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS45	NE34 8	4.8	Tyne to Frenchman's Bay	3.6	11	24	4	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS76	NE34 0	4.2	Tyne to Frenchman's Bay	3.6	2	3	0	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
BC30	NE36 0	3.1	South Bents to Sunderland North Pier	3.7	34	73	11	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS28	NE34 9	4.8	Frenchman's Bay to Lizard Point	3.8	6	13	2	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
OSS65	NE34 0	4.2	Tyne to Frenchman's Bay	3.8	18	39	6	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS35	NE34 0	4.2	Frenchman's Bay to Lizard	3.9	12	26	4	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE

Site Ref	Post code	% of Costal Visitors from Post code	Closest Survey Area	Distance to Nearest Protected Site	Homes Capacity	Potential new people	Potential new dogs	Potential New Cats (with 400m only)	Habitat Loss and Fragmentation of Habitats (Under 0.2km)	Primary Recreation and Urbanisation Zone (under 2km)	Disturbance – Recreational and Urbanisation (Over 10 new dwellings)	Air Quality	Hydrology	Water Quality	Climate Change
			Point												
OSS36	NE34 0	4.2	Frenchman's Bay to Lizard Point	3.9	25	54	8	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS66	NE34 0	4.2	Tyne to Frenchman's Bay	3.9	40	86	13	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS43	NE34 9	4.8	Tyne to Frenchman's Bay	4	9	19	3	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
BC62	NE36 0	3.1	South Bents to Sunderland North Pier	4.1	69	148	23	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS4	NE33 1	0.6	Tyne to Frenchman's Bay	4.2	18	39	6	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
OSS41	NE34 9	4.8	Tyne to Frenchman's Bay	4.2	120	257	40	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC25a	NE36 0	3.1	South Bents to Sunderland North Pier	4.3	210	449	70	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC25b	NE36 0	3.1	South Bents to Sunderland North Pier	4.3	294	629	97	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC29	NE36 0	3.1	South Bents to Sunderland North Pier	4.3	2	4	1	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
OSS40	NE34 9	4.8	Tyne to Frenchman's Bay	4.3	175	375	58	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE

Site Ref	Post code	% of Costal Visitors from Post code	Closest Survey Area	Distance to Nearest Protected Site	Homes Capacity	Potential new people	Potential new dogs	Potential New Cats (with 400m only)	Habitat Loss and Fragmentation of Habitats (Under 0.2km)	Primary Recreation and Urbanisation Zone (under 2km)	Disturbance – Recreational and Urbanisation (Over 10 new dwellings)	Air Quality	Hydrology	Water Quality	Climate Change
			an's Bay												
OSS37	NE34 0	4.2	Frenchman's Bay to Lizard Point	4.4	4	9	1	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
OSS70	NE34 0	4.2	Tyne to Frenchman's Bay	4.4	5	10	2	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
BC40a	NE35 9	2.2	South Bents to Sunderland North Pier	4.7	23	49	8	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC63	NE36 0	3.1	South Bents to Sunderland North Pier	4.8	7	15	2	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
OSS39a	NE34 9	4.8	Frenchman's Bay to Lizard Point	4.8	70	150	23	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC24	NE36 0	3.1	Lizard Point to South Bents	5	7	15	2	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
BC61	NE36 0	3.1	South Bents to Sunderland North Pier	5.4	15	32	5	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
JA30	NE34 9	4.8	Frenchman's Bay to Lizard Point	5.4	4	9	1	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
BC20	NE36 0	3.1	South Bents to Sunderland North	5.5	51	109	17	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE

Site Ref	Post code	% of Costal Visitors from Post code	Closest Survey Area	Distance to Nearest Protected Site	Homes Capacity	Potential new people	Potential new dogs	Potential New Cats (with 400m only)	Habitat Loss and Fragmentation of Habitats (Under 0.2km)	Primary Recreation and Urbanisation Zone (under 2km)	Disturbance – Recreational and Urbanisation (Over 10 new dwellings)	Air Quality	Hydrology	Water Quality	Climate Change
			Pier												
BC21	NE36 0	3.1	Lizard Point to South Bents	5.5	19	41	6	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC22	NE36 0	3.1	Lizard Point to South Bents	5.5	4	9	1	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
BC58	NE35 9	2.2	South Bents to Sunderland North Pier	5.6	123	263	41	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC60	NE35 9	2.2	South Bents to Sunderland North Pier	5.7	9	19	3	n/a	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
BC13a	NE36 0	3.1	South Bents to Sunderland North Pier	5.8	11	23	4	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC13b	NE36 0	3.1	South Bents to Sunderland North Pier	5.8	15	33	5	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC15	NE36 0	3.1	South Bents to Sunderland North Pier	5.9	11	24	4	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC10	NE35 9	2.2	South Bents to Sunderland North Pier	6	16	34	5	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE

Site Ref	Post code	% of Costal Visitors from Post code	Closest Survey Area	Distance to Nearest Protected Site	Homes Capacity	Potential new people	Potential new dogs	Potential New Cats (with 400m only)	Habitat Loss and Fragmentation of Habitats (Under 0.2km)	Primary Recreation and Urbanisation Zone (under 2km)	Disturbance – Recreational and Urbanisation (Over 10 new dwellings)	Air Quality	Hydrology	Water Quality	Climate Change
BC6b	NE35 9	1.2	South Bents to Sunderland North Pier	6.2	147	315	49	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC18a	NE36 0	3.1	South Bents to Sunderland North Pier	6.3	101	216	33	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
BC7	NE35 9	2.2	South Bents to Sunderland North Pier	6.5	50	107	17	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
FG18	NE35 9	2.2	South Bents to Sunderland North Pier	6.9	436	933	144	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
FG18b	NE35 9	2.2	South Bents to Sunderland North Pier	7	346	740	115	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE
FG17g	NE35 9	2.2	South Bents to Sunderland North Pier	7.9	55	119	18	n/a	No LSE	No LSE	Potential LSE	No LSE	No LSE	No LSE	No LSE

To find out more about the Local Plan, please contact:

Forward Planning Team
Development Services
South Tyneside Council
Town Hall and Civic Offices, Westoe Road
South Shields, Tyne & Wear NE33 2RL

Telephone: **(0191) 424 7688**
E-mail: **local.plan@southtyneside.gov.uk**
Visit: **www.southtyneside.info/planning**

If you know someone who would like this information in a different format contact the communications team on (0191) 424 7385