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South Tyneside Interim Habitats Regulations Assessment and Supplementary Planning Document

Report 1: HRA of emerging growth scenarios and
options

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Summary

This report is an interim Habitats Regulations Assessment (HRA) of the emerging growth scenarios and options for the South Tyneside Borough. It is being undertaken in the early stages of the preparation of the new Local Plan for South Tyneside, in recognition of the risks posed to European wildlife sites as a result of new growth in the Borough. A HRA considers the implications of a plan or project for European wildlife sites. This HRA report is the first of three documents being prepared by Footprint Ecology for South Tyneside Council. A recreation mitigation strategy and a Supplementary Planning Document (SPD) form the other two reports.

The recently finalised Strategic Land Review (SLR) is the assessment of development potential across the Borough, determining which potential development sites are either suitable, potentially suitable, or can be discounted due to their unsuitability. This HRA report is primarily based on the SLR data. The SLR is an evidence base, and the final decisions on which sites will be included or excluded in the Local Plan will depend on further analysis by South Tyneside Council.

The European sites of relevance to this HRA are the Durham Coast SAC and Northumbria Coast SPA/Ramsar site. These extend along the coast both north and south of South Tyneside. The Northumbria Coast is classified as an SPA and listed as a Ramsar site for its wading bird species, and the Durham Coast SAC is designated for its vegetated sea cliffs on magnesian limestone exposures. The analysis of the SLR indicates that the coastal European sites may see an 8% increase in the level of visits. There is a risk in relation to recreation disturbance and urbanisation effects, alongside a decline in Purple Sandpiper and Turnstone for the Northumbria Coast SPA, which mirrors declines at other sites in the UK.

Advice from Natural England has consistently encouraged a strategic approach to mitigating for the effect of increased recreation pressure at the South Tyneside coast. Taking a plan level approach to securing the maintenance of the overwintering bird populations at this point in time recognises the significant level of new growth coming forward. It is concluded that a suite of plan led measures to protect the European sites is a positive response to the available evidence and should seek to prevent further growth from exacerbating population declines. There is an opportunity to use the available housing, visitor and ecological data to establish a strategic solution that can then be refined for the emerging Local Plan and embedded in policy. This interim HRA provides the background to the recreation mitigation strategy and SPD.

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1. Introduction

- 1.1 This report is an interim Habitats Regulations Assessment (HRA) of the emerging growth scenarios and options for the South Tyneside Borough. It is being undertaken in the early stages of the preparation of the new Local Plan for South Tyneside, in recognition of the risks posed to European wildlife sites as a result of new growth in the Borough. A HRA considers the implications of a plan or project for European wildlife sites, in terms of any possible harm to the habitats and species that form an interest feature of the European sites in close proximity to the proposed plan or project, which could occur as a result of the plan or project being put in place.
- 1.2 The objectives of this report are as follows:
- To assess all available information in relation to the early evidence base documents that will inform the preparation of the new South Tyneside Local Plan, to determine the level, type and spread of growth that is likely to be promoted within the Local Plan
 - To then use the analysis of the evidence base to establish what risks new growth may pose to European wildlife sites.
- 1.3 This interim HRA report will then provide the assessment necessary to determine what measures need to be put in place prior to the adoption of the new South Tyneside Local Plan, in order to protect European wildlife sites from harm as a result of development coming forward for planning permission prior to the adoption of the new Local Plan. This HRA report is the first of three documents being prepared by Footprint Ecology for South Tyneside Council. Subsequent documents will be informed by this HRA report and are:
- An interim mitigation strategy and charging schedule to set out the measures needed to protect European sites, with a charging schedule to be applied to relevant development.
 - An interim Supplementary Planning Document (SPD) to provide policy and guidance to implement the interim mitigation strategy.
- 1.4 These three reports will provide South Tyneside Council with the evidence, justification, mitigation measures and implementation mechanism for protecting European sites prior to the adoption of the new Local Plan. This interim approach will be revisited and updated as part of the HRA of the South Tyneside Local Plan once preparation of the plan is underway. The new Local Plan will then embed European site protection within its policies. The mitigation strategy will be reviewed and updated, and secured within the new Local Plan.

- 1.5 It is therefore currently anticipated that the interim approach set out within the three reports will be in place for up to five years. The mitigation strategy and SPD are being prepared on that basis.

Habitats Regulations Assessment

- 1.6 A HRA is the step by step process of ensuring that a plan or project being undertaken by, or permitted by a public body, will not adversely affect the ecological integrity of a European wildlife site. Where it is deemed that adverse effects cannot be ruled out, a plan or project must not proceed, unless exception tests are met. This is because European legislation, which is transposed into domestic legislation and policy, affords European sites the highest levels of protection in the hierarchy of sites designated to protect important features of the natural environment.
- 1.7 The relevant European legislation is the Habitats Directive 1992¹ and the Wild Birds Directive 2009², which are transposed into domestic legislation through the Conservation of Habitats and Species Regulations 2017. These Regulations are normally referred to as the 'Habitats Regulations.' The Regulations were recently updated to consolidate previous amendments and correct minor errors. The new 2017 Regulations have not changed the requirements for HRA, but new Regulation numbers now apply.
- 1.8 The legislation sets out a clear step by step approach for decision makers considering any plan or project. In England, those duties are also supplemented by national planning policy through the National Planning Policy Framework (NPPF). This national planning policy also refers to Ramsar sites, which are listed in accordance with the international Ramsar Convention. The NPPF requires decision makers to apply the same protection and process to Ramsar sites as that set out in legislation for European sites. Formally proposed site, i.e. sites proposed for European designation and going through the designation process, and those providing formal compensation for losses to European sites, are also given the same protection. This report refers to all the above sites as 'European sites' for assessment purposes, as the legislation is applied to all such sites, either directly or as a result of policy.
- 1.9 It should be noted that the European Directives operate on the basis that sites are in place to serve as an ecologically functioning network, and ultimately it is the preservation of that network as a whole that is the overall aim of the European Directives. The network is often referred to as the Natura 2000 Network or 'N2K.'
- 1.10 The duties set out within the Habitats Regulations apply to any public body or individual holding public office with a statutory remit and function, referred to as

¹ Council Directive 92/43/EEC

² Council Directive 2009/147/EC

'competent authorities.' The requirements are applicable in situations where the competent authority is undertaking or implementing a plan or project, or authorising others to do so. A more detailed guide to the step by step process of HRA is provided in this report at [Appendix 1](#).

- 1.11 In assessing the implications of any plan or project, in this case a local plan, for European sites in close proximity, it is essential to fully understand the sites in question, their interest features, current condition, sensitivities and any other on-going matters that are influencing each of the sites. Every European site has a set of 'interest features,' which are the ecological features for which the site is designated or classified, and the features for which Member States should ensure the site is maintained or, where necessary restored. Each European site has a set of 'conservation objectives' that set out the objectives for the site interest, i.e. what the site should be achieving in terms of restoring or maintaining the special ecological interest of European importance.
- 1.12 The site conservation objectives are relevant to any HRA, because they identify what should be achieved for the site, and a HRA may therefore consider whether any plan or project may compromise the achievement of those objectives. Further information on European site conservation objectives can be found at [Appendix 2](#) of this report.

2. Assessing the Available Evidence – Local Plan

2.1 This interim HRA is informed by a range of documents that will in time all contribute to the preparation of the South Tyneside Local Plan. Whilst this HRA is not directly assessing an emerging plan, it is still a plan level HRA because the documents that are being used to provide an overview of potential growth in the immediate future and over the forthcoming plan period are plan level evidence base documents. This HRA does not therefore rule out the need for project level HRA for individual development proposals. It should however inform those project level HRAs. Subsequent reports on a recreation mitigation strategy and SPD will provide a means by which recreation impacts can be avoided and mitigated for at a strategic level. The Local Plan documents informing this HRA are considered in turn here.

The South Tyneside Local Plan

2.2 South Tyneside Council is in the process of preparing its new Local Plan. Currently, the South Tyneside Local Development Framework (LDF) provides the statutory planning documents to guide sustainable development in the Borough. The LDF consists of the following documents:

- Core Strategy – adopted June 2007
- Development Management Policies – adopted December 2011
- Site Specific Allocations – adopted April 2012
- South Shields Town Centre and Waterfront Area Action Plan – adopted November 2008
- Central Jarrow Area Action Plan – adopted September 2010
- Hebburn Town Centre Area Action Plan – adopted October 2008.

2.3 It is Government policy that local planning documents are continually reviewed in order to remain up to date and informed by current evidence on local economic, social and environmental needs, as well as national legislation and planning policy. The new South Tyneside Local Plan is being prepared to provide an up to date statutory development plan following changes to planning legislation and guidance in recent years, as well as the abolition of the regional tier of government. The NPPF requires the housing need set out within the Local Plan to be determined locally, based on objective assessment and informed by realistic deliverability. Viability is therefore an important consideration when establishing housing need and how it may be achieved.

2.4 The 2011 census indicated that the South Tyneside population was 148,164 people. It is understood that this equates to an average of 2.29 persons per household. The current estimated increase in population for the Borough over the lifetime of the local plan is 5.5% over 25 years from the 2011 census. This equates to 8,213 people. There

are however a range of differing forecasts, as set out in the South Tyneside Population and Housing Position Statement 2016.

- 2.5 The key Issues and Options for South Tyneside have been consulted upon, along with a further consultation on growth options. Meeting a higher level of predicted growth needs will necessitate some greenfield development and potentially some loss of the current Greenbelt. The Council has been working on establishing the options available for site allocations to meet the identified growth needs for the Borough. These are discussed and assessed further in the following section.
- 2.6 The issues and options for South Tyneside identifies that the level of demand for new housing over the new plan period may necessitate a doubling of the typical average housebuilding rates seen in the Borough in recent years. The HRA for the Issues and Options is discussed in Section 4 of this report.
- 2.7 Delivering sustainable growth in South Tyneside through the new Local Plan will be undertaken in accordance with the current South Tyneside Vision, which includes agreed priorities for the Borough over a 20-year timescale, and the South Tyneside Council Strategy, which informs the people of South Tyneside how the Council is planning to deliver the Vision. The coastal European sites are not specifically mentioned in these documents, but the continued protection of these assets into the long-term cuts across many of the themes such as health and wellbeing, regeneration and improved visitor experience. The South Tyneside coast is an important part of the visitor offer as well as being a valued recreation asset for local residents. The recreation use of the coast is discussed further in the following sections of this HRA report.

Strategic Land Review

- 2.8 The recently finalised Strategic Land Review (SLR) is the assessment of development potential across the Borough, determining which potential development sites are either suitable, potentially suitable, or can be discounted due to their unsuitability. Collectively, the sites identified as either suitable or potentially suitable provide for approximately 10,000 new homes and the equivalent of 12,000 jobs in employment development opportunities. The recently finalised SLR is the first step in establishing a set of development allocations for the Local Plan in due course. The suitable and potentially suitable sites may not all progress to an allocation within the Local Plan. However, the inclusion of the full suite of suitable and potentially suitable sites in this interim HRA enables a more precautionary approach to be taken. This can then be refined as the Local Plan is prepared. This interim HRA therefore assumes that all suitable and potentially suitable sites will become allocations in the South Tyneside Local Plan.

- 2.9 This HRA report is primarily based on the SLR data. The SLR is an evidence base, and the final decisions on which sites will be included or excluded in the Local Plan will depend on further analysis by South Tyneside Council. The final set of site allocations to be included in the Local Plan may not include all of the SLR suitable or potentially suitable sites.

Regeneration and nationally significant infrastructure

- 2.10 Within the South Tyneside Borough there are currently two Nationally Significant Infrastructure Projects (NSIPs) being progressed. These are a set of road improvements to the A19/A184 Testos roundabout and A19/A1290 Downhill Lane interchange, and the development of an 'International Advanced Manufacturing Park (IAMP) alongside the A19. The latter will also be the subject of a specific Area Action Plan.
- 2.11 Whilst these projects are of considerable significance for the South Tyneside Borough, particularly in terms of regeneration, they will not affect the coastal European sites or alter the recreation impacts being considered as part of this interim HRA. The projects do not increase or decrease recreation pressure.

Current predicted housing need

- 2.12 This Issues and Options consultation suggested that the housing need for the South Tyneside Borough over the new plan period may amount to between 10,000 and 12,000 new homes. The SLR suitable or potentially suitable sites being used as the potential housing sites for this interim HRA amount to the provision of 10,000 new homes.
- 2.13 In Autumn 2017 the Government ran a consultation on proposals to reform the planning system in terms of the housing numbers being planned within each local authority area. The consultation set out a standard methodology for calculating housing need, and this therefore provides an up to date indication of the housing requirements for the South Tyneside Borough.
- 2.14 Since the commencement of this interim HRA, the South Tyneside planning officers have considered the national objectively assessed need figures alongside their local evidence and their housing need and land supply assessment work to date. Based on the new draft calculation method, South Tyneside Borough will now select appropriate SLR sites to provide a housing land supply for 360 houses per annum over the 20-year plan period, therefore equating to at least 7,200 houses.
- 2.15 For the purposes of this HRA, an overall figure of at least 7,200 new houses across the Borough is therefore being assumed. The housing need figure for the Borough may change over time as the Local Plan is developed. This interim HRA is based on the

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information currently available and when it is updated to support the South Tyneside Local Plan it may therefore need to reconsider the implications of housing growth and the mitigation proposed.

3. Assessing the Available Evidence – European Sites

- 3.1 The European sites of relevance to this HRA are the Durham Coast SAC and Northumbria Coast SPA/Ramsar site. These extend along the coast both north and south of South Tyneside, and are shown in Map 1 (which shows the entire extent of these European sites) and Map 2 (which shows the South Tyneside area in more detail). When undertaking HRA work, there are a number of information sources that can assist with establishing an understanding of the European site, its sensitivities, current status and any current threats to the site. In addition to bespoke surveys and research, discussed further below, it is necessary to look at the standard information produced by Natural England and the Joint Nature Conservation Committee (JNCC) for each site. These documents are the site citation, conservation objectives and Site Improvement Plan (SIP).
- 3.2 The biodiversity features for which each site is designated (SACs), classified (SPAs) or listed (Ramsar sites) is provided on the site citation published by the JNCC. Conservation objectives, as discussed in more detail in Appendix 2, identify what should be achieved for the site in order to maintain, or where necessary restore site interest features.
- 3.3 Natural England has produced SIPs for all European sites in England, as part of a programme of work to target improvements for European sites to get them back into a healthy state for long term viability. The SIPs identify the main threats to each European site, and the actions that Natural England consider to be necessary to deal with each identified threat.

The Durham Coast SAC interest features

- 3.4 The Durham Coast SAC runs from South Shields down to Blackhall Rocks along a 20km stretch of coastline, as illustrated on Map 2. The citation for the site explains that this SAC protects the only example of vegetated sea cliffs on magnesian limestone exposures in the UK. The species rich vegetation community of the cliffs is therefore not found anywhere else in the UK and are reliant upon the combination of sea spray, coastal winds, calcareous flushes and the dynamic nature of the cliffs with slippage of the soft limestone bedrock and overlying glacial drifts.
- 3.5 The formal description of the qualifying habitat type, in accordance with Annex I of the Habitats Directive is 'vegetated sea cliffs of the Atlantic and Baltic coasts.' Whilst the site is designated for a single interest feature, it is important to note that the habitat type is a complex mosaic of grassland, fen, flushes and scrub. It is highly sensitive to impacts that change the conditions of the site, including nutrient enrichment and direct habitat damage.

The Durham Coast SAC conservation objectives and SIP

3.6 As explained in Section 1, each European site has a set of conservation objectives to be achieved in order to ensure each site is contributing to the favourable conservation status³ of the interest features across their natural range. Appendix 2 provides further detail on conservation objectives, and explains the difference between the way in which conservation objectives are presented for marine and terrestrial sites. Durham Coast SAC currently only has the generic conservation objectives applied to all European sites. The site specific supplementary advice has not yet been finalised and published by Natural England. This HRA therefore uses the generic objectives alongside locally relevant information to establish what is required to maintain the site interest and whether new development could impede the delivery of the conservation objectives.

The Northumbria Coast SPA/Ramsar site interest features

3.7 The Northumbria Coast is classified as an SPA and listed as a Ramsar site for its wading bird species. The rocky shoreline and sandy beaches provide both breeding and overwintering habitat for species of European importance.

3.8 The citation for the site states that it qualifies for its breeding population of Little Tern *Sterna albifrons*, and overwintering populations of Purple Sandpiper *Calidris maritima* and Turnstone *Arenaria interpres*. Currently there is an additional qualifying feature being considered by Defra as part of proposals to classify an extensive Northumberland coast marine SPA (referred to as a pSPA when in the formally proposed stage and with the same protection applied in accordance with the NPPF), bringing in offshore foraging habitat for a range of species. Arctic tern *Sterna paradisaea* is formally proposed as an additional species to be added to the citation for the site, and as such needs to be considered in relevant HRAs alongside the three existing qualifying species.

3.9 Within South Tyneside, Turnstone in particular are known to use other locations outside the SPA, and the use of these other areas by the SPA interest potentially means these other locations are functionally-linked. Various locations were surveyed in 2015-16 by BSG Ecology (Beamsley 2016a; b) and the key locations where Turnstone were recorded are indicated on Map 2.

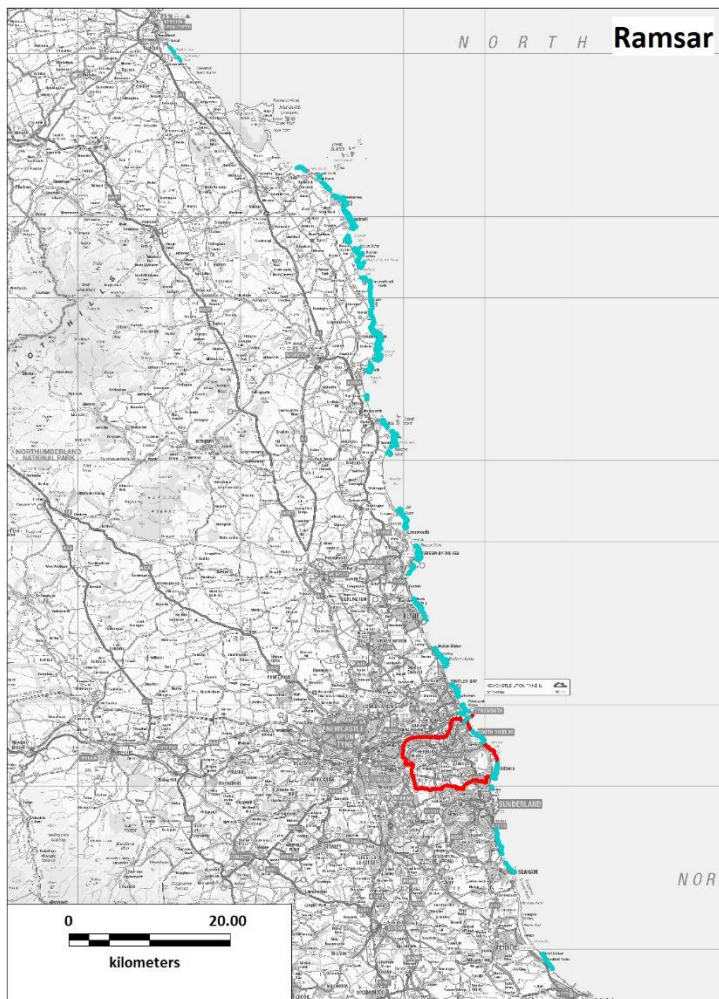
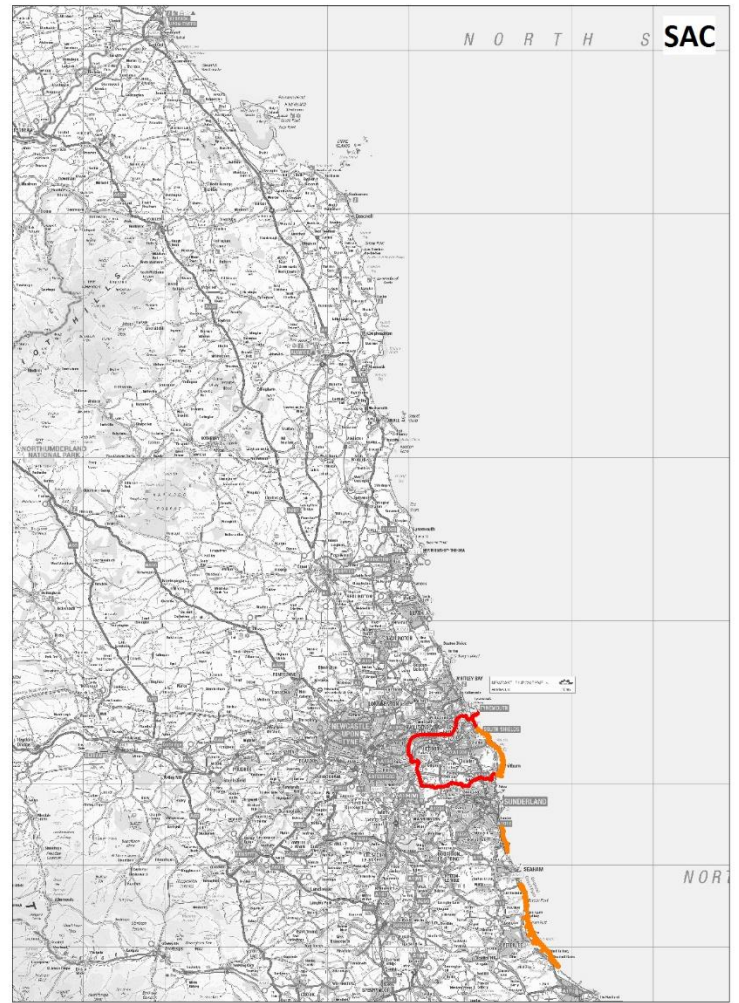
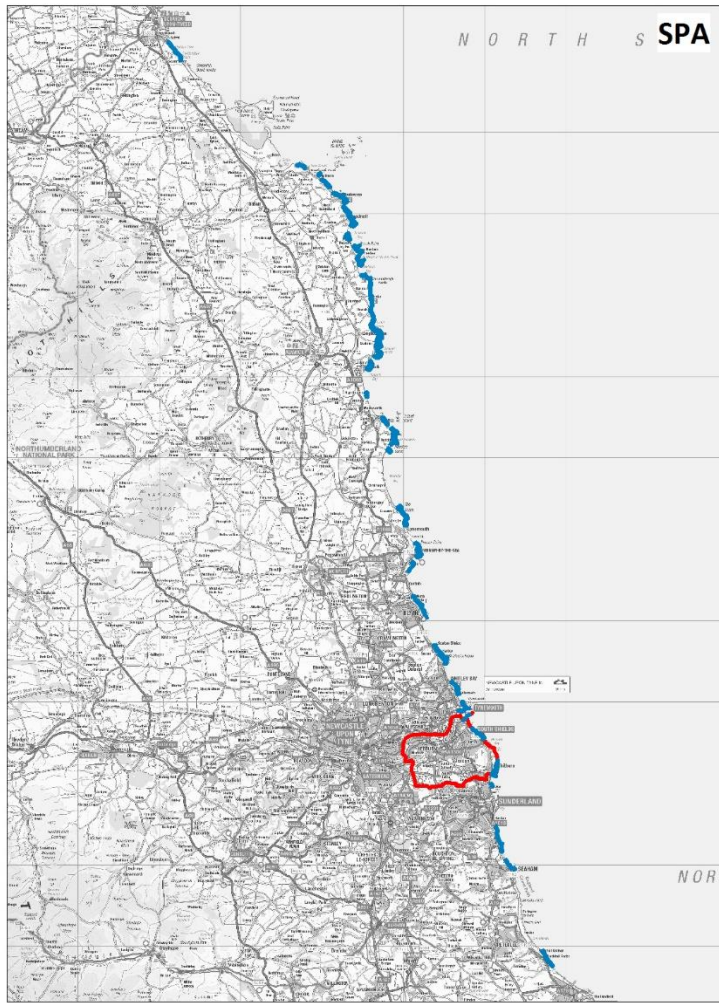
3.10 The Northumbria Coast Ramsar site is listed for the same interest features as the SPA, qualifying for its populations of international importance of Little Tern, Purple Sandpiper and Turnstone.

³ Favourable conservation status is

The Northumbria Coast SPA/Ramsar site conservation objectives and Regulation 33 advice

- 3.11 The Northumbria Coast SPA is a marine European site and therefore has the benefit of a package of advice produced by Natural England. This is known as Regulation 33 advice, which is explained in further detail in Appendix 2. The Regulation 33 advice for the Northumbria Coast SPA highlights the importance of the habitats present within the SPA for the bird interest features. For Little Tern, as a breeding feature of the site the sandy beaches are critical. As discussed below, the breeding colony is highly susceptible to disturbance and the colony may shift location. Nesting locations within the SPA are therefore restricted, and any area of the site providing historic or potential use should be safeguarded. Shallow inshore waters provide the foraging habitat for Little Tern. Some foraging areas are outside the currently classified boundary, but the new Northumberland coast marine pSPA covers an extensive water area alongside the coast.
- 3.12 For the overwintering bird interest features of the SPA, the Regulations 33 advice lists rocky shores with associated boulder and cobble beaches as a key sub-feature supporting Purple Sandpiper and Turnstone. The rocky shores provide invertebrate food sources for both species. The advice states that the important bird populations require a naturally functional intertidal habitat for roosting, breeding and feeding. Artificial high tide roosts are also important for this SPA, and there are a number of known areas where birds roost in good numbers, including the River Tyne South Pier, for which the advice states should be deemed to be a sub-feature of the SPA.
- 3.13 Maintaining the extent and quality of sub-feature habitat is a key element of the conservation objectives for the site. Direct habitat loss can occur, but for the consideration of new growth impacts, it is the indirect effect of reduction in habitat quality as a result of disturbance, which is the primary concern. As explained below, this can have a number of implications for the birds.

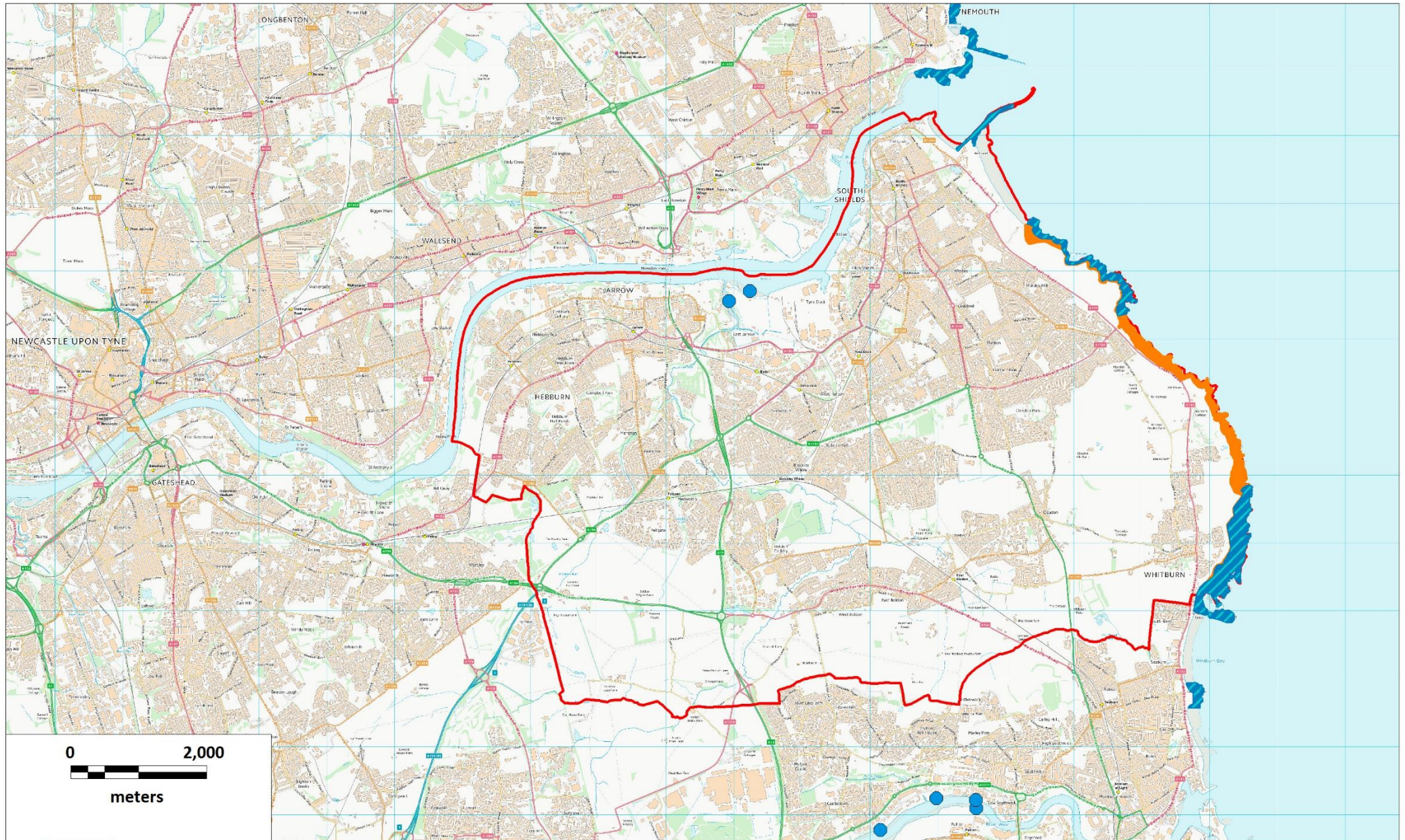
Map 1: Relevant European Sites



-  South Tyneside
-  Northumbria Coast SPA
-  Durham Coast SAC
-  Northumbria Coast Ramsar


Contains Ordnance Survey Data.
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 Designated site boundaries downloaded from the Natural England website.
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Map 2: Relevant European Sites




 South Tyneside

 Northumbria Coast SPA

 Northumbria Coast Ramsar
(contiguous with SPA)

 Durham Coast SAC

 Indicative locations outside SPA
where interest features known to occur

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Northumbria coast SPA/Ramsar site bird survey reports

- 3.14 There are a number of ecological survey reports available to inform this HRA, providing valuable information on the distribution of the birds along the coast and in other non-coastal locations. The reports identify where there are particular hotspots for the birds that may be most sensitive to impacts.
- 3.15 The bird survey reports available for the Northumbria Coast SPA/Ramsar site include survey work commissioned by Natural England to inform SSSI condition assessment work, a formal and regular aspect of Natural England's role in overseeing the maintenance and restoration of designated sites. Condition assessments are undertaken on a rolling programme for all SSSIs, and therefore provide useful evidence when considering the overlying European site designations. The survey work by Ecology Consulting on behalf of the local planning undertaken in 2015 - 2016 covers the coastline of South Tyneside and the presence of birds along the habitat sub features of the SPA.
- 3.16 As the preparation for new Local Plans in South Tyneside and neighbouring Sunderland City commenced, the two local planning authorities worked together to gather ecological evidence to contribute to the evidence base for their Local Plans. This includes initial survey work of wintering birds within the SPA by Arcus, commissioned by Sunderland City Council and South Tyneside Council and undertaken in 2014 - 2015. This report provides bird survey information and also identifies any disturbance events witnessed by the surveyors. This was followed up by a second overwintering bird survey undertaken by BSG Ecology, the Coastal Sites Sunderland and South Tyneside 2015-2016 non-breeding bird survey.
- 3.17 Additionally, as recommended by the Arcus survey, Sunderland City Council and South Tyneside Council recognised the need for extra survey work outside the designated site boundaries. Two bird surveys outside the SPA were specifically commissioned by Sunderland City Council and South Tyneside Council, again to inform HRAs of emerging local plans for both local planning authorities. The River Wear Sunderland and South Tyneside 2015-2016 non-breeding bird survey, prepared by BSG Ecology (Beamsley 2016a; b). incorporates the lower tidal reaches of the River Wear, surveying overwintering wader species to assess a potential functional link with the Northumbria Coast SPA/Ramsar site. Similarly, the Inland Sites Sunderland and South Tyneside 2015-2016 non-breeding bird survey, again prepared by BSG Ecology looks at bird usage of inland areas as potential functionally linked land.
- 3.18 The two functionally linked land surveys focus on the over-wintering species for which the SPA is classified; purple sandpiper *Calidris maritima* and turnstone *Arenaria interpres*, and also consider the presence of other wader species: knot *Calidris canutus*, redshank *Tringa totanus*, curlew *Numenius arquata*, oystercatcher *Haematopus ostralegus*, sanderling *Calidris alba*, golden plover *Pluvialis apricaria*, ringed plover

Charadrius hiaticula, dunlin *Calidris alpina*, black-tailed godwit *Limosa lapponica*, snipe *Gallinago gallinago* and lapwing *Vanellus vanellus*. Whilst this HRA report does not focus on these wider species, it is important to note that these are covered by legislative and planning policy requirements that must be considered as part South Tyneside Council's spatial planning and development management functions.

- 3.19 These bird survey reports are considered further in Section 4 of this HRA report in relation to impact pathways. The following discussion firstly provides the context for why bird disturbance is a key issue for this HRA.

Recreation and disturbance to birds

Wintering waterbirds

- 3.20 Strategic work commissioned by Natural England reviewed all intertidal SPAs in order to identify which were particularly vulnerable to recreation impacts linked to local housing (Ross *et al.* 2014). Ross *et al.* used the extent of current housing and a range of other metrics including the amount of access along the shore (i.e. how much of the shoreline had public access), the area of intertidal habitats (and the area close to path networks), parking provision and substrate to rank sites. The approach was such that sites with high levels of housing, small areas of intertidal habitat, larger proportions of intertidal habitat close to footpaths, a high proportion of the shoreline with access and relatively firm substrates (i.e. such that the intertidal areas are easily accessible on foot) would be the most vulnerable. This led to sites such as, the Wirral and Mersey Narrows, Benfleet and Southend and Portsmouth Harbour being ranked as vulnerable, and large, remote and more rural sites such as the Solway Firth being considered the least vulnerable.
- 3.21 Such an approach allows sites to be compared and highlights those where strategic approaches to mitigation are likely to be most relevant. In the ranking, the Northumbria Coast was not identified as especially vulnerable, appearing roughly half way in the ranking. The Northumbria Coast was not ranked near the top as the level of housing surrounding the SPA, the number of car-parks and the proportion of the shoreline with current access (i.e. paths/tracks etc) were relatively low. However, for the South Tyneside part of the coastline there is a concentration of urbanisation and car parks/
- 3.22 The work by Ross *et al.* therefore indicates that the Northumbrian Coast is perhaps of less concern regarding recreational disturbance compared to other sites. Ross *et al.*'s work was not intended to replace the need for HRA work, but rather to provide some context and background to help site specific HRAs. Any assessment must also consider the species involved, the scale (and distribution) of housing change and the proportion of the SPA potentially affected. The Northumbria Coast is in many ways quite different to the other SPAs considered in the review as it is very long and thin

and is predominantly open coast rather than estuary. The Northumbria Coast SPA is designated for two species of wintering waterbirds, Turnstone and Purple Sandpiper while most other intertidal sites are estuaries with a wide range of species associated with intertidal habitats. Both Turnstone and Purple Sandpiper are associated with rocky habitats (and also sometimes areas of seaweed washed up on beaches), which potentially are less accessible to people, for example they can feed on rocky areas at the base of cliffs and utilise islands etc. that are not necessarily easily accessible to people.

- 3.23 Disturbance to wintering and passage waterfowl can result in:
- A reduction in the time spent feeding due to repeated flushing/increased vigilance (Fitzpatrick & Bouchez 1998; Stillman & Goss-Custard 2002; Bright *et al.* 2003; Thomas, Kvitek & Bretz 2003; Yasué 2005)
 - Increased energetic costs (Stock & Hofeditz 1997; Nolet *et al.* 2002)
 - Avoidance of areas of otherwise suitable habitat, potentially using poorer quality feeding/roosting sites instead (Cryer *et al.* 1987; Gill 1996; Burton *et al.* 2002; Burton, Rehfisch & Clark 2002)
 - Increased stress (Regel & Putz 1997; Weimerskirch *et al.* 2002; Walker, Dee Boersma & Wingfield 2006; Thiel *et al.* 2011)
- 3.24 Disturbance has been identified by Natural England as a generic issue across many European Marine Sites (see Coyle & Wiggins 2010), and can be an issue for a range of species.
- 3.25 The SIP produced by Natural England for the Northumbrian Coast⁴ is a single plan covering all the SPA and SAC sites along the Northumbria Coast, including the Northumbria Coast SPA. The plan identifies public access/disturbance as the most important threat, but does not list Turnstone or Purple Sandpiper as interest features where the threat is relevant.
- 3.26 There have been declines in Turnstone and Purple Sandpiper along the Northumbria Coast, which have been picked up through the long-term Wetland Bird Surveys (WeBS), (Cook *et al.* 2013). These declines appear to span relatively long time periods. Analysis conducted by Newcastle University (Whittingham *et al.*, unpublished manuscript, in prep), looked in detail at whether these declines could be attributed to disturbance. Relevant findings included:
- Whittingham *et al.* found no correlation between the amount of urban cover within a 10km radius and WeBS counts from different sectors, indicating that the amount of development around particular count areas did not match the change in birds recorded;

⁴ <http://publications.naturalengland.org.uk/file/4788230077546496>

- There was no correlation between bird numbers (for each species, summed across multiple counts over the winter) and the number of people or dogs (again summed across the winter) at different locations.

3.27 While these data appear to suggest other factors besides disturbance may be linked to the decline in Purple Sandpiper and Turnstone, there are some key elements that the study does not address or where the analysis is limited. Whittingham *et al.* used a 10km radius around count areas and used the total area of development as the measure in their analysis. This approach treats development equally across different distances from the coast, using relatively crude landcover data. We would expect people who live very close to the coast to visit much more frequently than those further away (compared to those at 5km or 10km), therefore a count sector could have relatively high levels of housing very close to the coast but a low overall value for housing within 10km and we would expect it potentially to have relatively high levels of access.

3.28 Other analysis using housing data have weighted housing variables with distance to account for this issue (e.g. Clarke & Liley 2013; Ross *et al.* 2014). The correlations between people numbers and bird numbers related to counts conducted within a 100m radius and during a fifteen-minute window. Counts of people and birds were summed for 12 locations over the winter. By summing the data, counts on one date where there were few birds and high numbers of people (or vice versa) would be masked, and any short-term redistribution of birds missed. Furthermore, the narrow window and limited count area potentially make analysis difficult. The paper is therefore useful, but does not rule out disturbance as factor of current concern. The authors also rightly acknowledge that recreation use may well increase as a result of further development and as such impacts in the future cannot be ruled out.

Breeding bird interest

3.29 The breeding bird interest for the SPA is Little Tern. These tend to nest in colonies on open beaches (either sand or shingle) and there are a range of studies indicating clear impacts of disturbance, with disturbance affecting both the nesting distribution (Ratcliffe *et al.* 2008) and breeding success (Medeiros *et al.* 2007, 2012). Colonies tend to fluctuate over time and distribution often changes between years, potentially in relation to a range of factors. Little Terns have declined across the UK and are one of our rarest seabirds (see Brown & Grice 2005 for background and context). The species is the focus of a current European Union LIFE+ Project⁵, targeting colonies within UK SPAs and working to enhance management and protection at each.

⁵ [The Little Tern Recovery Project](#)

- 3.30 Within the Northumbria Coast SPA, there is limited habitat for Little Terns to nest and the key location for the species is Beadnell Bay, which is considerably to the north of the South Tyneside Borough. A further colony at Crimdon Dene to the south forms part of the Little Tern interest for the Teesmouth and Cleveland Coast SPA, which continues along the coast to the south of the Northumbria Coast SPA.
- 3.31 Consideration of the available habitat on the South Tyneside Coast leads to a conclusion that Little Tern is unlikely to establish a nesting colony due to lack of open beach that has a low level of surrounding urbanisation and recreational use. There are however potential options for habitat creation in the future. These are discussed further in Report 2 - Recreation Mitigation Strategy.

Key points in relation to Northumbria Coast SPA/Ramsar site ecological data

- 3.32 The Northumbria Coast SPA and Ramsar site extends along the Northumbria Coast to both the north and south of South Tyneside. Little Tern occur notably outside the South Tyneside coastline and suitable habitat for this species is currently not present within the Borough. Likely significant effects are therefore currently ruled out. Some proposals for habitat creation may come to fruition in future, and this conclusion would therefore need to be revisited at that point.
- 3.33 Purple Sandpiper and Turnstone occur along the coast, utilising the rocky shoreline for feeding and roosting. The pier is also a key roosting site, and there is some indication that the Port of ~Tyne, and intertidal habitat within the Wear Estuary is serving as functionally linked land, as identified by the BSG survey work. The survey report also identifies potential issues relating to the Groves Crane site, and it is expected that a project level HRA has been undertaken accordingly.
- 3.34 The key concern for South Tyneside with respect to bird disturbance relates to wintering Purple Sandpiper and Turnstone. There is potential for disturbance to have an impact for these species, and both species are suffering declines around the UK. Currently, there isn't any evidence to indicate that the species are specifically affected by disturbance along the south Tyneside Coast, but their sensitivity to disturbance, and UK declines that also appear to be being reflected locally, indicate that there is a risk that requires further assessment in light of new growth for the Borough.

Durham Coast SAC reports and information

- 3.35 Key current pressures and threats to the SAC are set out in Natural England's Site Improvement Plan⁶ and include (in prioritised order): natural changes to site conditions; inappropriate coastal management; invasive species; fertilizer use; illicit

⁶ <http://publications.naturalengland.org.uk/file/5185664152764416>

use by vehicles; changes to site conditions and public access/disturbance. The illicit vehicles relates to the illegal use of motorbikes, quadbikes and 4x4s in specific areas along the coast, especially around soft cliffs and dunes, causing erosion and damage to vegetation. Public access/disturbance is a pressure and the issue relates to dog fouling, which results in increased nutrient levels which can lead to a change in vegetation communities present.

Key points in relation to Durham Coast SAC ecological data

- 3.36 Currently there is little information to assist with the assessment of impacts on the habitats of the SAC. There is some information potentially available from data gathering undertaken by other partners, including the National Trust. As the Local Plan and its HRA is progressed after this interim period, there will be a need to consider how SAC data can be gathered, to inform the longer term strategy for the coast. This may include for example, looking at other protects such as Heritage Lottery projects and maximising partnership working in the future. At this point in time, the information available from natural England indicates that issues are localised and could therefore be dealt with in specific locations.

4. Establishing Impact Pathways

- 4.1 European sites are at risk if there are possible means by which any aspect of a plan or project can, when being taken forward for implementation, pose a potential threat to the wildlife interest of the sites. This is often referred to as the 'impact pathway' as it is an identifiable route by which the plan or project could potentially affect the European site.
- 4.2 Initial plan level HRA work has been undertaken by South Tyneside Council, with the HRA of the Issues and Options Consultation, and HRA of the SLR. Both reports provide an initial screening of the documents to identify potential risks and set out next steps. The risks identified are summarised here. The HRA report for Issues and Options did not assess a set of policies and allocations, rather it set the background context and explored impact pathways in preparation for the next stage of plan making and HRA. The HRA of the SLR sets out a screening for likely significant effects and a number of potential risks are identified for further consideration.
- 4.3 Both HRAs refer to the following impact pathways, with findings summarised for each pathway below:
- Air quality
 - Hydrology
 - Water quality
 - Climate change
 - Habitat loss and fragmentation
 - Disturbance from recreation and other urbanisation impacts

Air quality

- 4.4 Air quality was identified as a potential impact in the HRA screening of Issues and Options. APIS data was used to conclude that the Durham Coast SAC and Northumbria Coast SPA/Ramsar site, whilst sensitive to the impact of Nitrogen Oxides (NO_x), Sulphur Dioxides (SO₂), Ozone (O₃) and ammonia (NH₃), currently the pollutants are below the critical level for the habitat types at the sites. The HRA report for the South Tyneside Issues and Options concluded that 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. The more recent HRA for the SLR similarly identifies the potential risks due to the sensitive habitats, and the need to maintain some consideration of this issue. Table 6.1 in the SLR HRA provides a useful summary of potential risks from different pollutants.
- 4.5 For this interim HRA, the assessment primarily focusses on the potential growth being taken forward within the future Local Plan, but does not have any emerging policy to

assess. It is therefore advised that the same conclusions should be drawn, and that the absence of a currently identified problem with air quality should not preclude consideration of this in the Local Plan HRA.

Hydrology and water quality

- 4.6 The HRA report for Issues and Options and the HRA report for the SLR identify hydrology as a potential issue as a result of increased abstraction of ground water and increased flooding arising as a result of increased areas of hard standing in close proximity to designated sites. Water quality was also highlighted by both, with the potential for water pollution primarily through the increased demand on the existing sewage treatment network leading to increased chemical nutrients in waste water. Coastal discharge from waste water treatment works is also highlighted as a risk within the Regulation 33 advice package for the Northumbria Coast SPA. The specific risk of thermal and toxic pollution could also arise from particular development types and transport.
- 4.7 As with air quality, the lack of policy and allocation specifics make it difficult to fully assess these potential impact pathways at this interim HRA stage, and should be revisited once the formal HRA of the Local Plan is in preparation.

Habitat loss and fragmentation

- 4.8 Habitat loss and fragmentation is highlighted in the HRA of the Issues and Options and of the SLR due to the risk of functionally linked land being affected by new development. This could either be directly or indirectly. The BSG bird survey reports now provide good information on areas of potentially functionally linked land, and these should be used to flag any risk once potential site allocations are being individually assessed for inclusion in the Local Plan. Any projects coming forward for approval in this interim stage will need to be the subject of HRA and have regard for the BSG survey findings and recommendations. As noted in the previous section, the SAC impacts currently appear to be localised and in part relate to unauthorised behaviour.

Climate change

- 4.9 The HRA report for the Issues and Options and for the SLR also both concluded that climate change, particularly in relation to coastal process changes, could exacerbate development related risks to the European sites.
- 4.10 The sensitivity of the coast to the effects of climate change give weight to the recommendations of this HRA, which are to take a precautionary and forward looking approach to protecting the coastal European sites from the impact of future growth. The lack of local evidence to demonstrate significant decline in species and habitat

interest features does not negate the need to secure protection of the interest features and put measures in place to maintain site interest into the long term, making the sites more resilient and less sensitive to other factors such as climate change. Locally it is apparent that the coast line is gradually changing over time as a result of coastal dynamics. Whilst the changes are not rapid, the future may lead to changes in how the birds are distributed up and down the Northumbria Coast SPA, which has the potential to result in the South Tyneside section becoming more important for the SPA species.

Recreation and other urbanisation impacts

- 4.11 The main potential impact identified by the HRA for the Issues and Options stage and within the HRA of the SLR is disturbance (people visiting European sites for recreation, which in turn causes species disturbance, trampling of vegetation etc), and urbanisation (bringing increased pets, litter, fire risk, invasive plants etc). These impacts are particularly linked to residential growth but can occur as a result of other development types.
- 4.12 The available evidence indicates that the overwintering bird species are found continuously along the Northumbria SPA/Ramsar site within the South Tyneside Borough. The records of sightings occur wherever there is suitable habitat, and there are also particular concentrations of birds in a number of key locations. Some sites, such as the former firing range at Whitburn, which is clearly an important roost site for both Purple Sandpiper and Turnstone, are slightly inland from the coast.
- 4.13 Disturbance events were recorded as part of the bird survey work, and highlighted that the greatest frequency of disturbance events related to walkers and their dogs at the coast. The surveys highlight that areas of interface where sandy beaches used for recreation meet the rocky foreshore are particularly prone to this kind of disturbance.

Summary of impact pathways assessment

- 4.14 Absence of an emerging Local Plan makes it difficult to assess air quality, hydrology and water quality impacts. These impact pathways need to be picked up again with the formal Local Plan HRA.
- 4.15 Habitat loss and fragmentation may be relevant to specific allocations and the final assessment of development sites for the Local Plan should have regard for the BGS functionally linked land surveys. Development management will need to consider these at the project level HRA in the interim period.
- 4.16 Climate change is an exacerbating factor that further supports a precautionary and forward thinking approach to protecting the European sites at the plan level.

- 4.17 Recreation disturbance and other urbanisation impacts have a clear impact pathway from growth and this risk requires further assessment. This is provided in the following section of this HRA report.
- 4.18 This interim HRA therefore focusses on the likely significant effect of recreation disturbance and urbanisation effects, with more detailed assessment on this impact pathway being taken to the appropriate assessment stage. In the absence of detail on non-residential development site allocations, South Tyneside Council will need to be mindful of project level HRA needs for any non-residential development proposal that comes forward. This assessment uses the SLR data giving estimated housing numbers for each residential suitable and potentially suitable site, to assess potential implications from the quantum of housing coming forward and the distances at which the sites are located from the coast.
- 4.19 As development comes forward in this interim period, the Council will need to consider any potential impacts that are not related to recreation, including pollution and non-recreation disturbance such as industrial noise, for example.

5. Assessing potential effects of recreation and urbanisation

- 5.1 This section provides an appropriate assessment of recreation and other urbanisation effects. Once a likely significant effect has been identified, the purpose of the appropriate assessment is to examine evidence and information in more detail to establish the nature and extent of the predicted impacts, in order to answer the question as to whether such impacts could lead to adverse effects on European site integrity.
- 5.2 An appropriate assessment should be based on evidence, and that can take different forms (direct evidence, comparable evidence, modelling, expert opinion, Natural England's advice etc). In reality however, appropriate assessments are often undertaken with some evidence, but not enough to give absolute or definitive answers. The assessment is therefore often drawing on the knowledge and experience of the assessors, to make scientifically justified decisions about risk.
- 5.3 The 'precautionary principle' is an accepted principle that is embedded within the wording of the legislation, and latterly within case decisions, both European and domestic. Essentially, in accordance with the Habitats Regulations, a competent authority must only give effect to a plan or authorise/undertake a project after having ascertained that it will not adversely affect the integrity of the European site. It is for the competent authority to gather the information and evidence necessary to give them certainty that adverse effects will not occur. Fundamentally that therefore means that in the absence of certainty, the plan or project should not normally proceed (subject to further exceptional tests). Hence the precaution is in the competent authority's duty to only allow plans or projects to proceed where there is certainty and to apply a precautionary approach where uncertainties remain.

Strategic assessment of estuaries around the English coast

- 5.4 The analysis of estuaries undertaken by Footprint Ecology, working with Natural England described above (Ross *et al.* 2014) identifies the sensitivity to disturbance for estuary/intertidal SPA sites around the country. The analysis uses a range of factors (existing/future housing growth, accessibility, characteristics) to rank sites from high to low risk from future housing growth. The purpose of the work is to assist with identifying where additional residential growth may need further HRA consideration. The analysis showed a medium sensitivity ranking for Northumbria SPA, with sites such as the Solent at the top of the ranking, therefore identified as potentially being under the most recreation pressure. The ranking is relative and does not mean that Northumbria Coast SPA is of no concern, particularly when bearing in mind the legislative duty to maintain and restore European sites. The strategic estuaries work

undertaken will help to flag sites in need of restoration, the need to protect those at risk, and maintain all SPA sites for the future.

- 5.5 Northumbria SPA is specifically classified for Turnstone and Purple Sandpiper. Most of the other estuary/intertidal sites in the study are supporting wildfowl assemblages. Turnstone and Purple Sandpiper are rocky coast birds, and whilst these habitats are not typically sought for recreation, they are generally not extensive, and close disturbance can have a notable impact.

Distances at which impacts may occur

- 5.6 The visitor data discussed in the previous section above were provided by South Tyneside Council. These data were in the form of the number of interviewees from different postcode sectors within South Tyneside. Data are summarised in Map 3 with the red lines on the map representing the different postcode sectors (which are also labelled in red) and the pie charts showing the number of interviewees to each of three sections of coast. The size of the pie chart reflects the overall number of interviewees that visited the coast. In total 186 interviews are represented on the map.
- 5.7 Ideally the data would be in the form of unique, full postcodes, which would allow us to determine how many interviewees came from different distance bands away from the coast. The postcode information from the visitor data provides a partial post code, which can then be linked to a post code area or sector, but not a specific location. The postcode sectors in some cases are quite large, and span a range of distance bands (1km bands are shown by blue lines in Map 3). Nonetheless there would appear to be a pattern whereby there are more visitors from the sectors closer to the coast. In other words, the closer people live to the coast the more likely they are to visit. At a greater distance, residents are likely to be making more visits to nearby greenspaces in close proximity than the coast for recreation.
- 5.8 In exploring these data, it is necessary to understand the amount of current housing in each postcode sector. If a sector has a large volume of current residents, then it will be expected that there would be more people visiting the coast than a sector with fewer houses (at the same distance from the coast). In Map 3 we have therefore used the stippled shading to indicate housing density. The dots are distributed at random, but each dot is equivalent to a single dwelling and therefore the intensity of the shading broadly reflects housing density within the postcode sector.
- 5.9 From this shading we can identify sectors SR6 7, NE33 1 and NE32 3 as having slightly lower housing densities than the other sectors. Sectors NE36 0, NE10 8 and SR5 1 have much lower housing densities and in particular NE10 8 and SR5 1 have very few houses. For all these sectors, it would be expected (if broadly similar in size to the

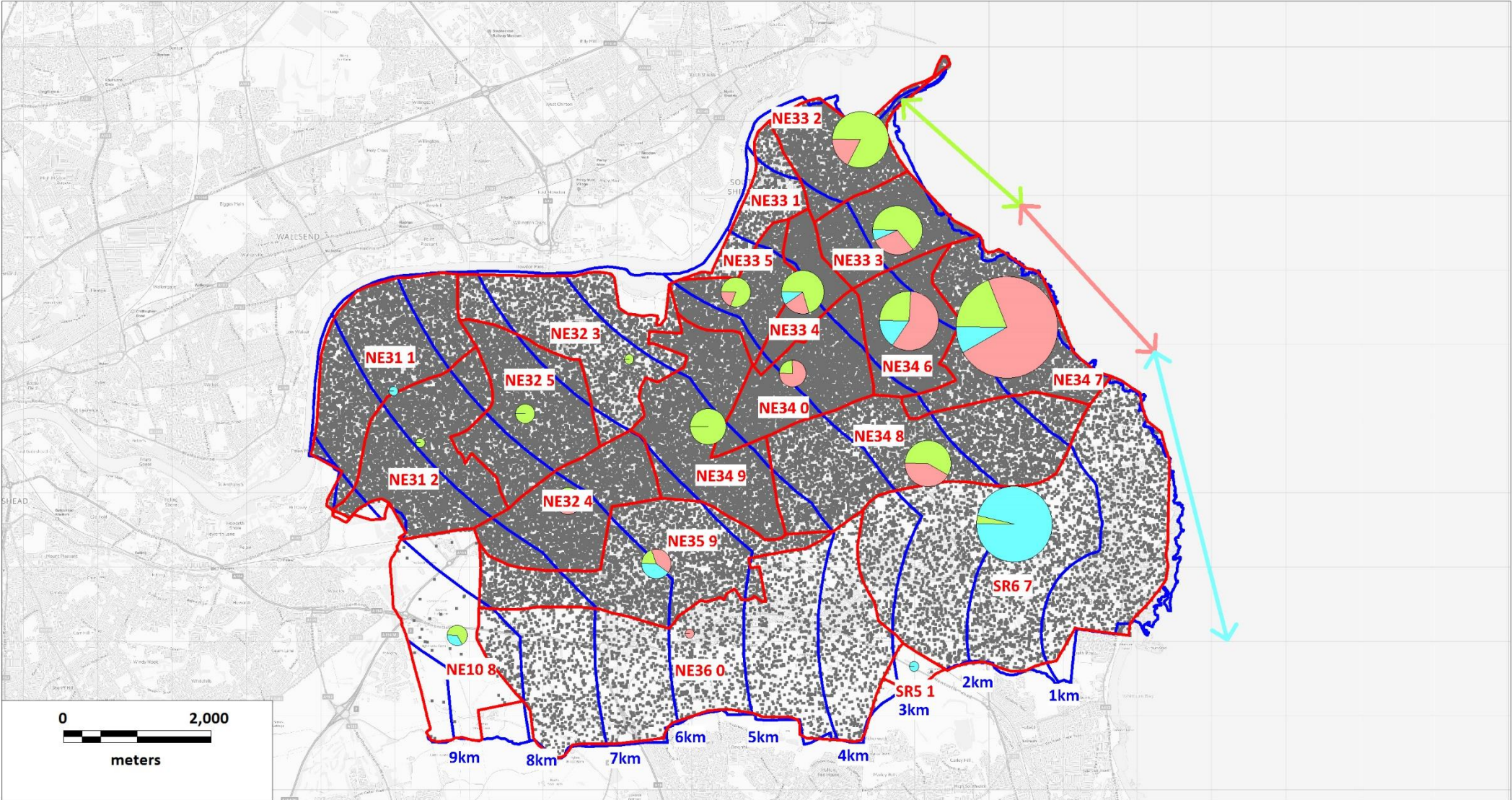
other sectors), that the size of the pie chart would be smaller than nearby sectors, simply because there are fewer residents.

- 5.10 A different approach to using these data are to calculate the proportion of residents that were interviewed. An approximation of this (assuming relatively even occupancy rates) is to divide the number of interviews in each postcode sector by the number of houses (within each postcode sector, and limiting just to those parts of each sector in South Tyneside). This gives a value for the number of interviewees per residential property and it would be expected that this would decline with distance away from the coast. We calculated distance from the coast based on the centre point of each sector and calculated the distance to the nearest part of the relevant part of the coast. Plots of these data are shown in Figure 1. We have derived a plot for each section of the coast (as illustrated in Map 3) and then also combined the data to derive a single plot for all interviewees, regardless of the section where interviewed. It should be noted that we excluded sectors NE10 1 and SR5 1 from these plots as for both of these sectors there were very few houses (less than 50, whereas other sectors the number of houses was at least 500 and mostly multiple thousands). The number of interviewees per property was much higher in these sectors than the other sectors. With such low levels of housing, the difference between just one interviewee and no interviewees (in terms of interviews per property) is huge and as such the data are very difficult to use.
- 5.11 The plots do show a clear pattern whereby visits per property declines with distance. These would tend to suggest that housing within 3km is likely to generate more access to the coast than housing further away and that by around 6km or 7km, visit rates are low. These results would suggest development at around 7km would need to involve large volumes of housing to generate similar levels of access as houses within one kilometre. Taking the values from the combined plot, within one kilometre around 0.008 interviews per property might be anticipated, and at 7km that value falls to approximately 0.0002; this would suggest around 40 dwellings at 7km might be associated with an equivalent level of access to the coast as one dwelling within 1km. These distances fit with the overall data from the visitor survey work: in which 690 interviews were conducted along the entire coast, from these data 75% of interviewees indicated they lived within a six-mile radius of the location where interviewed.
- 5.12 These figures provide a useful guide to the extent at which development may have an impact in terms of recreation. However, some caution is required in the interpretation of the data as:
- The postcode sectors are large, span multiple distance bands and are variable in the amount of housing within each sector;
 - The number of interviews (117) is relatively small and were collected from a narrow window in time; and

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- The data relate to all visitors, visitors that might cause disturbance to the SPA interest may be a subset of these data and may not necessarily fit the overall pattern shown.

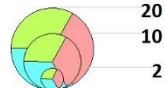
Map 3: Housing data and visitor interviews



- Postcode sections
- 1km buffers from coast

Current housing density (2017)
 Dots randomly distributed to indicate density
 1 Dot = 1 dwelling

Number of interviewees from each postcode sector



- Visiting Tyneside to Frenchman's Bay
- Visiting Frenchman's Bay to Lizard Point
- Visiting Lizard Point to South Bents

Pie charts show data from 186 visitor interviews where interviewee gave postcode sector within South Tyneside.

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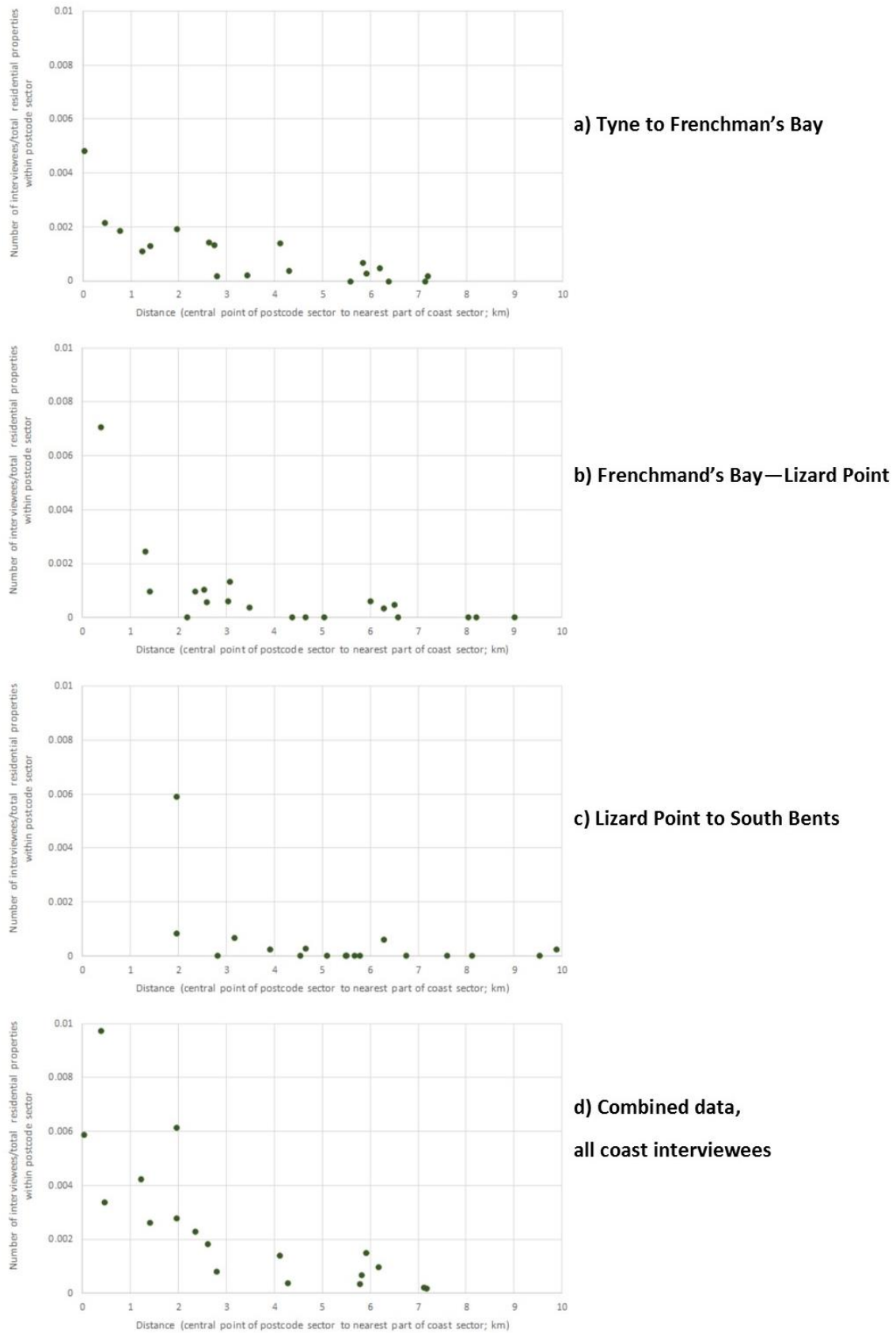


Figure 1: Number of interviewees per residential property in relation to distance from the coast (distance measured from the centre of the sector to the nearest part of the coast). Sectors NE10 8 and SR5 1 are not shown/included in the plots as there were so few houses, and therefore potentially spurious results.

Locations of possible future housing development

- 5.14 The Strategic Land Review (SLR) provides an indication of potential sites, and those classified as green or amber are shown in relation to the European sites in Map 4.
- 5.15 The green and amber sites together could deliver in the region of 10,200 new homes, based on the current housing capacity estimates. Using the housing capacity estimates for each site we calculated the total volume of housing within each distance band (1km bands) away from the coast, as shown in Map 4. Where SLR sites spanned multiple bands, we calculated the proportion of the site area that fell within each band and applied that proportion to the housing total. Using these data and current postcode data we were able to estimate the amount of current housing within each 1km band and potential future housing (based on the SLR data), as shown in Figure 2.

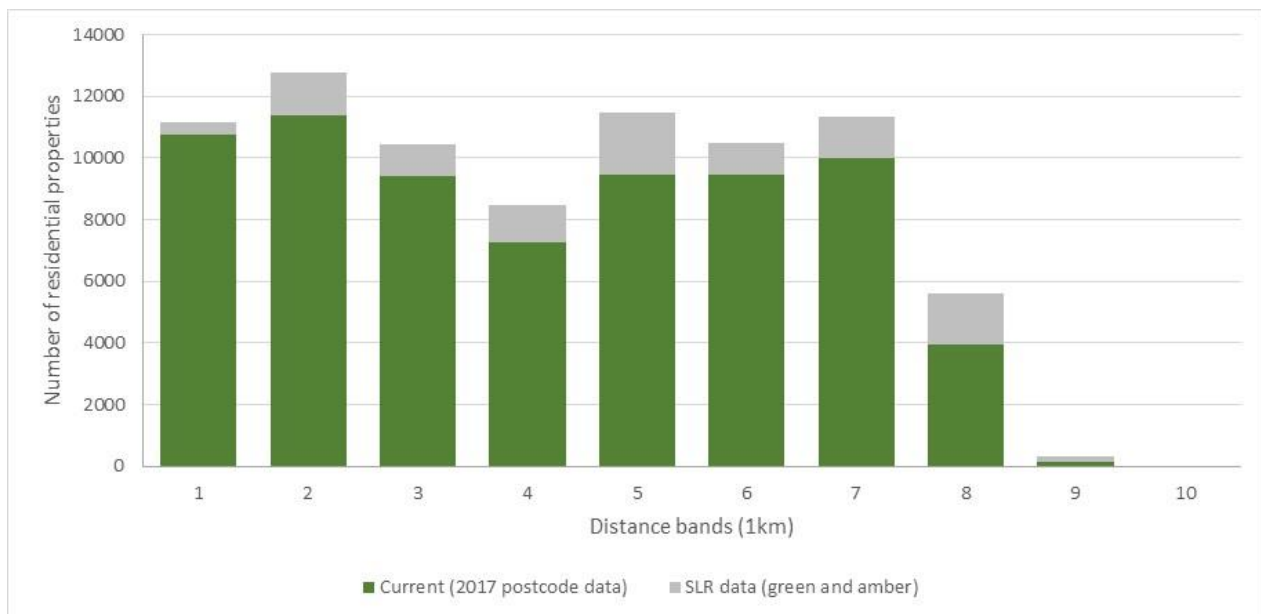
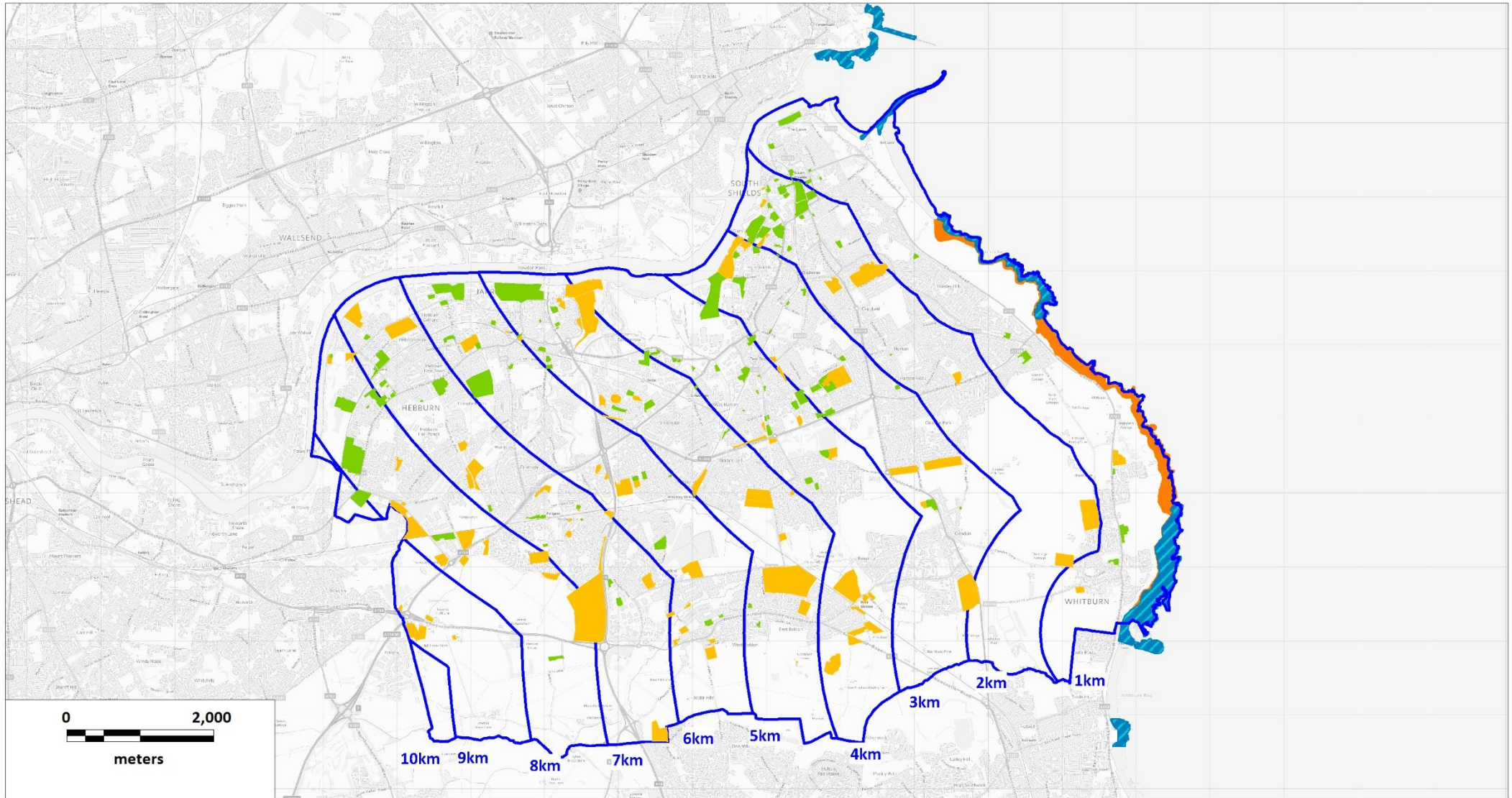



Figure 2: Current (2017 postcode data) and possible future (SLR data) housing at different distances away from the coast

Map 4: Strategic Land Review (SLR) sites



 Northumbria Coast SPA

 Northumbria Coast Ramsar (contiguous with SPA)

 Durham Coast SAC

 1km buffers from coast

SLR data

 Amber

 Green

5.17 Data are summarised Table 1 . Current postcode data indicates around 71,803 residential dwellings in total within South Tyneside. These are relatively evenly spread across the different distance bands. The level of development in the SLR (green and amber sites only), at 10,193 dwellings, would represent a 14.2% increase in housing.

Table 1: Summary of current housing (residential delivery points from postcode data) compared to possible future development, as set out in the SLR

Distance from coast	Current (2017 postcode data)	SLR data (green and amber)	% change
0-3km	31,549	2821	8.9
0-7km	67,709	8364	12.4
0-10km	71,800	10,193	14.2

5.18 Making any predictions for changes in access as a result of the additional housing is very difficult and should be treated with caution (see caveats above, para 5.12). Nonetheless, it is possible to apply the change in housing within each postcode sector to the interview data to derive a very approximate estimate of change. For example, if the SLR data were to indicate a change in housing of 10% for a postcode sector, and 20 interviewees had come from that sector, then we might expect a 10% increase in the number of interviewees (i.e. 2 more interviewees). The new total for interviewees, essentially how many people we might have expected to be interviewed were the survey to be repeated after the SLR sites had been built, gives an indication of overall change.

5.19 These figures and the approach are given in Table 2. Columns b) and c) give housing data, current 2017 data (column b) and SLR sites (column c). The possible future increase in housing is given as a % in column d), based on the values in b) and c). The number of interviewees from each sector is given in column e) and as a percentage of all interviewees in column f). In column g) we show the additional interviewees that would be expected if the survey were to be repeated after the SLR sites had been developed, assuming an increase in proportion to the increase in housing. It can be seen this indicates an additional 14.5 interviewees. The original total was 186 interviewees, this would therefore suggest a very approximate level of change of around 8%.

5.20 This approach is crude and assumes that access might directly increase in proportion to housing. Furthermore, it relies on basic assumptions with the visitor surveys that a random sample of people were interviewed, representing a random geographic spread. For the estimate of change to approximate to footfall (i.e. increase in visitors) we assume group size in interviewed parties is similar regardless of which postcode sector they originate from. While clearly the approach has limitations, it provides a means to consider the scale of change. This can be placed in context, based on current visitor numbers. It is also possible to review housing data from previous years.

Footprint Ecology hold data back to 2003 that shows residential delivery points per postcode. Checking back to these data would suggest a 6% increase in housing over the period from 2003-2017.

Interim conclusions from the assessment of housing growth

- 5.21 The analysis of the SLR information providing the suitable and potentially suitable sites for housing development, and the available visitor survey data indicates that the coastal European sites may see an 8% increase in the level of visits.
- 5.22 There is a clear risk and impact pathway in relation to recreation disturbance and urbanisation effects, but not a current situation of severe deterioration. There is a decline in Purple Sandpiper and Turnstone for the Northumbria Coast SPA, and this is a decline that mirrors other sites with Purple Sandpiper seeing a long term decline of 72% in England and Turnstone a 23% decline.
- 5.23 Taking a plan level approach to securing the maintenance of the overwintering bird populations at this point in time recognises the significant level of new growth coming forward. A suite of plan led measures to protect the European sites is a positive response to the available evidence and should seek to prevent further growth from exacerbating population declines. The available evidence strongly supports a plan level approach that should not be left until the new Local Plan is adopted. Rather there is an opportunity now to use the available housing, visitor and ecological data to establish a strategic solution that can then be refined for the Local Plan, and embedded in policy.

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Table 2: Summary of interview data by postcode sector. Table gives the possible housing change for each postcode sector (column d) based on the SLR data and the number of interviewees from each sector. The change in housing is then applied to the interview data to estimate change in visitor use.

Postcode Sector	a) Distance to coast (km) from centre of sector	b) Number current houses (2017 postcode data)	c) SLR data (green and amber sites)	d) % possible change in housing	e) Total interviewee from sector	f) % interviewees	g) Additional interviewees if survey repeated with SLR sites	h) Total interviewees if survey repeated with SLR sites
NE10 8	8.7	40	375	937.5	3	1.6		3
NE31 1	7.1	4647	1053	22.7	1	0.5	0.2	1.2
NE31 2	7.2	5283	853	16.1	1	0.5	0.2	1.2
NE32 3	4.3	2655	1278	48.1	1	0.5	0.5	1.5
NE32 4	6.2	4214	534	12.7	4	2.2	0.5	4.5
NE32 5	5.8	4450	133	3	3	1.6	0.1	3.1
NE33 1	1.4	763	695	91.1	2	1.1	1.8	3.8
NE33 2	0	2894	157	5.4	17	9.1	0.9	17.9
NE33 3	0.5	4160	305	7.3	14	7.5	1	15
NE33 4	2	3611	156	4.3	10	5.4	0.4	10.4
NE33 5	2.6	2748	119	4.3	5	2.7	0.2	5.2
NE34 0	2.8	5022	655	13	4	2.2	0.5	4.5
NE34 6	1.2	4485	25	0.6	19	10.2	0.1	19.1
NE34 7	0.4	4828	99	2.1	47	25.3	1	48
NE34 8	2.4	5250	377	7.2	12	6.5	0.9	12.9
NE34 9	4.1	5721	330	5.8	8	4.3	0.5	8.5
NE35 9	5.9	3364	648	19.3	5	2.7	1	6
NE36 0	5.8	3092	1730	56	1	0.5	0.6	1.6
SR5 1	2.8	3	0	0	1	0.5		1
SR6 7	2	4570	673	14.7	28	15.1	4.1	32.1
TOTAL		71,800	10,195	14.2	186	100	14.5	200.5

6. Conclusions, Recommendations and Next Steps

6.1 This section sets out the recommendations for the next stage in the interim HRA work for South Tyneside. The recommendations are made in light of the evidence available in relation to housing, visitors and European site ecology. The recommendations made here are in alignment with the advice recently provided by Natural England.

Natural England's advice

6.2 Advice from Natural England has consistently encouraged a strategic approach to mitigating for the effect of increased recreation pressure at the South Tyneside coast. Natural England was present at the stakeholder workshop and expressed support for an interim zone of influence of 6km, pending review within five years. Natural England supported the range of measures discussed at the workshop that could then be built into a recreation mitigation strategy.

Recommendations for a strategic approach to dealing with recreation pressure and urbanisation

6.3 The strategic approach needs to set out the following in order to provide a robust and implementable solution that can be taken forward by planning officers, agreed to and understood by developers, and supported by stakeholders.

- Explanation of legislative and policy hooks from which the scheme is developed
- An exploration of the most suitable mitigation options
- Refinement of mitigation options, using input from local expertise
- Identifying hotspots for potential mitigation measures to be applied
- Costing the mitigation package
- Explanation of the process of using developer contributions
- Governance and administration
- Phasing, monitoring and review to tie in with the emerging Local Plan and refinement of the approach.

6.4 The exploration and refinement of mitigation options will be informed by good practice elsewhere, including emerging monitoring outcomes from more mature strategic mitigation schemes around the country. A meeting is planned to discuss the strategic approach with local stakeholders, and gain their expertise, particularly in relation to what measures may be most applicable locally. The identification of hotspots where mitigation may be most applicable will be informed by a combination of this local expertise and further analysis of the bird survey data. Map 5 shows the important roosting and feeding sites in relation to the SLR sites, and this will be

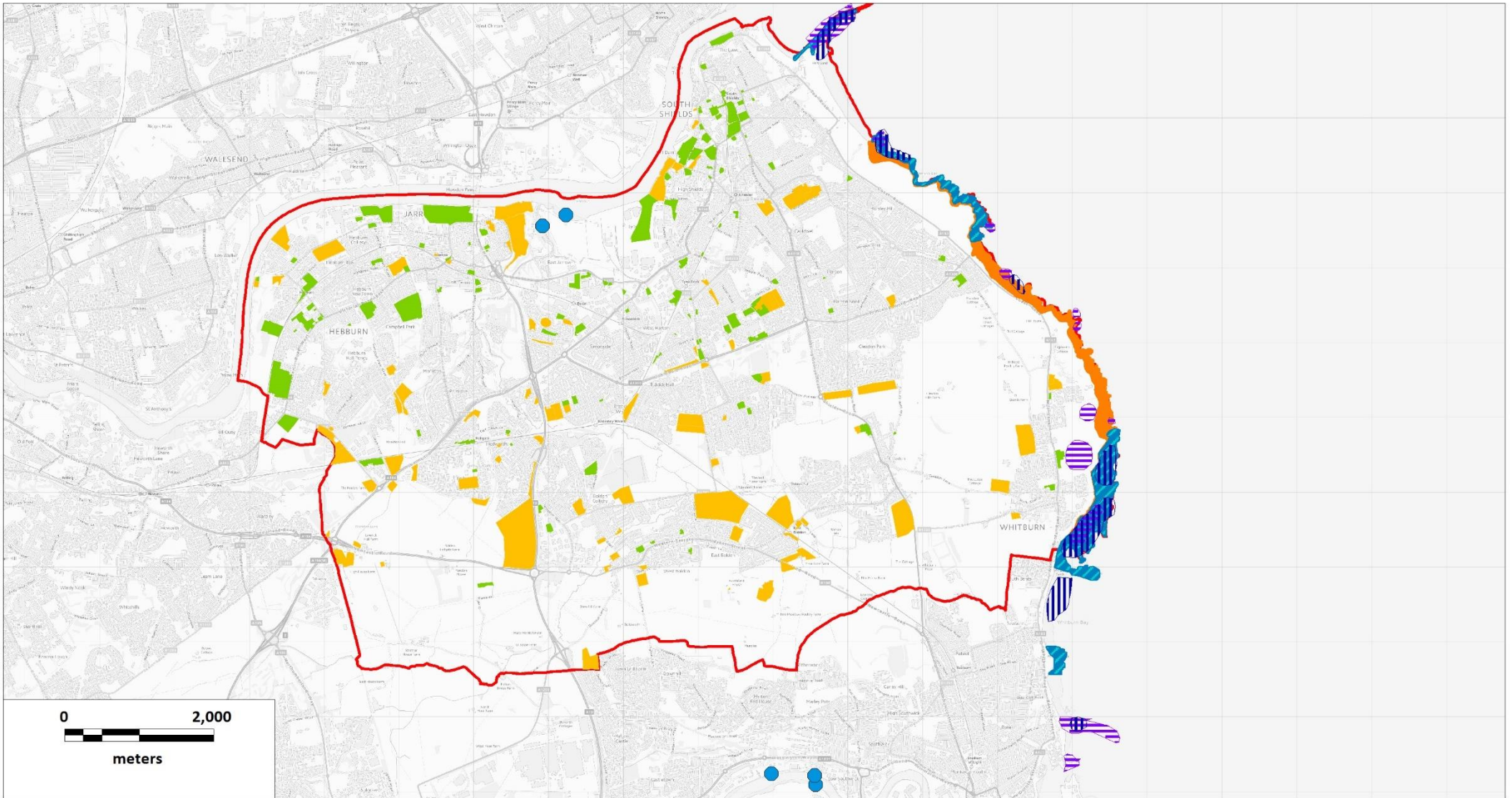
assessed further once locally relevant information has been gathered from stakeholders.

6.5 Hotspots will be equally relevant for the Durham Coast SAC. The SIP for the Durham Coast SAC identifies two key threats that could be attributed to and further exacerbated by housing growth. These are the use of vehicles (motorbikes, quadbikes, 4x4s) around soft cliffs and dunes, and public access causing habitat deterioration, particularly as a result of dog fouling. The SIP suggests the following measures should be implemented to deal with these issues:

- Education and awareness raising – specific users and general public
- Rationalise access points
- Increase wardening
- Signage
- Enforcement
- Measures to reduce dog fouling

6.6 These potential measures, along with a range of others, will provide the starting point for the strategic approach.

Map 5: Strategic Land Review (SLR) sites and key locations for Turnstone and/or Purple Sandpiper



South Tyneside boundary

SLR data

Amber

Green

Northumbria Coast SPA

Durham Coast SAC

Northumbria Coast Ramsar (contiguous with SPA)

Key Areas for Birds from Percival 2016

Important Foraging Sites

Important Roost Sites

Indicative locations away from the coast where interest features known to appear

7. Appendix 1 - The HRA Process

- 7.1 The designation, protection and restoration of European wildlife sites is embedded in the Conservation of Habitats and Species Regulations 2017, which are commonly referred to as the 'Habitats Regulations.' The Regulations were recently updated to consolidate previous amendments and correct minor errors. The recent amendments do not substantially affect the principles of European site assessment as defined by the 2010 Regulations, and which forms the focus of this report. Regulation numbering has however altered from the 2010 version.
- 7.2 The Habitats Regulations are in place to transpose European legislation set out within the Habitats Directive (Council Directive 92/43/EEC), which affords protection to plants, animals and habitats that are rare or vulnerable in a European context, and the Birds Directive (Council Directive 2009/147/EC), which originally came into force in 1979, and which protects rare and vulnerable birds and their habitats. These key pieces of European legislation seek to protect, conserve and restore habitats and species that are of utmost conservation importance and concern across Europe. Although the Habitats Regulations transpose the European legislation into domestic legislation, the European legislation still directly applies, and in some instances, it is better to look to the parent Directives to clarify particular duties and re-affirm the overarching purpose of the legislation.
- 7.3 European sites include Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) classified under the Birds Directive. The suite of European sites includes those in the marine environment as well as terrestrial, freshwater and coastal sites. European sites have the benefit of the highest level of legislative protection for biodiversity. Member states have specific duties in terms of avoiding deterioration of habitats and species for which sites are designated or classified, and stringent tests have to be met before plans and projects can be permitted, with a precautionary approach embedded in the legislation, i.e. it is necessary to demonstrate that impacts will not occur, rather than they will. The overarching objective is to maintain sites and their interest features in an ecologically robust and viable state, able to sustain and thrive into the long term, with adequate resilience against natural influences. Where sites are not achieving their potential, the focus should be on restoration.
- 7.4 The UK is also a contracting party to the Ramsar Convention, which is a global convention to protect wetlands of international importance, especially those wetlands utilised as waterfowl habitat. In order to ensure compliance with the requirements of the Convention, the UK Government expects all competent authorities to treat listed Ramsar sites as if they are part of the suite of designated European sites, as a matter of government policy, as set out in Section 118 of the National Planning Policy

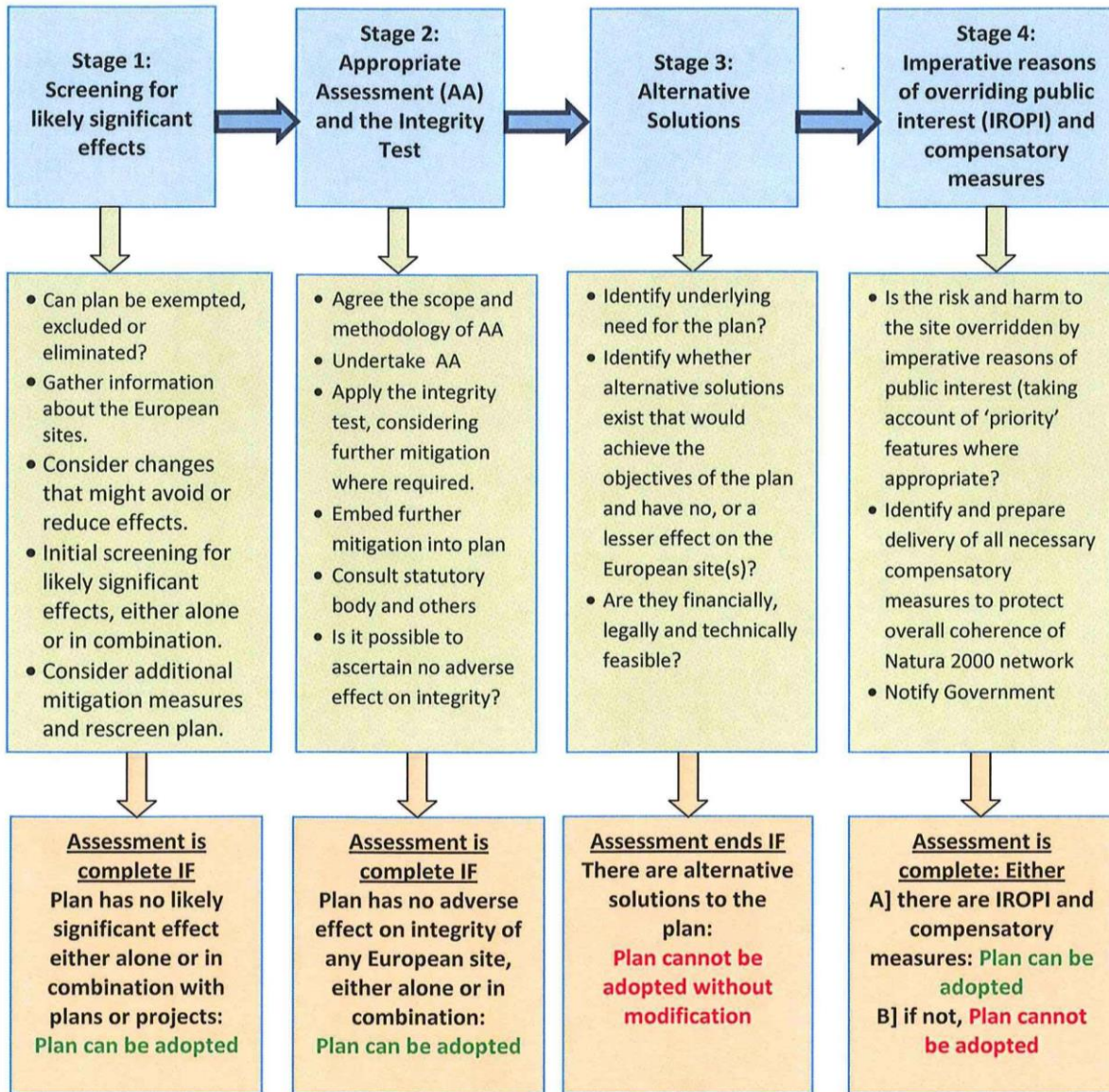
Framework. Most Ramsar sites are also a SPA or SAC, but the Ramsar features and boundary lines may vary from those for which the site is designated as a SPA or SAC.

- 7.5 It should be noted that in addition to Ramsar sites, the National Planning Policy Framework also requires the legislation to be applied to potential SPAs and possible SACs. It also applies to areas identified or required for compensatory measures where previous plans or projects have not been able to rule out adverse effects on site integrity, yet their implementation needs meet the exceptional tests of Regulation 62 of the Habitats Regulations, as described below.
- 7.6 The step by step process of HRA is summarised in the diagram below. Within the Habitats Regulations, local planning authorities, as public bodies, are given specific duties as 'competent authorities' with regard to the protection of sites designated or classified for their species and habitats of European importance. Competent authorities are any public body or individual holding public office with a statutory remit and function, and the requirements of the legislation apply where the competent authority is undertaking or implementing a plan or project, or authorising others to do so. Regulation 61 of the Habitats Regulations sets out the HRA process for plans and projects, which includes development proposals for which planning permission is sought. Additionally, Regulation 102 specifically sets out the process for assessing emerging land use plans.
- 7.7 The step by step approach to HRA is the process by which a competent authority considers any potential impacts on European sites that may arise from a plan or project that they are either undertaking themselves, or permitting an applicant to undertake. The step by step process of assessment can be broken down into the following stages, which should be undertaken in sequence:
- Check that the plan or project is not directly connected with or necessary for the management of the European site
 - Check whether the plan or project is likely to have a significant effect on any European site, from the plan or project alone
 - Check whether the plan or project is likely to have a significant effect on any European site, from the plan or project in-combination with other plans or projects
 - Carry out an Appropriate Assessment
 - Ascertain whether an adverse effect on site integrity can be ruled out
- 7.8 Throughout all stages, there is a continual consideration of the options available to avoid and mitigate any identified potential impacts. For projects, the project proposer may identify potential issues and incorporate particular avoidance measures to the project, which then enables the competent authority to rule out the likelihood of significant effects. A competent authority may however consider that there is a need to undertake further levels of evidence gathering and assessment in order to have certainty, and this is the Appropriate Assessment stage. At this point the competent

authority may identify the need to add to or modify the project in order to adequately protect the European site, and these mitigation measures may be added through the imposition of particular restrictions and conditions.

- 7.9 For plans, the stages of HRA are often quite fluid, with the plan normally being prepared by the competent authority itself. This gives the competent authority the opportunity to repeatedly explore options to prevent impacts, refine the plan and rescreen it to demonstrate that all potential risks to European sites have been successfully dealt with.
- 7.10 When preparing a plan, a competent authority may therefore go through a continued assessment as the plan develops, enabling the assessment to inform the development of the plan. For example, a competent authority may choose to pursue an amended or different option where impacts can be avoided, rather than continue to assess an option that has the potential to significantly affect European site interest features.
- 7.11 After completing an assessment, a competent authority should only approve a project or give effect to a plan where it can be ascertained that there will not be an adverse effect on the integrity of the European site(s) in question. In order to reach this conclusion, the competent authority may have made changes to the plan, or modified the project with restrictions or conditions, in light of their Appropriate Assessment findings.
- 7.12 Where adverse effects cannot be ruled out, there are further exceptional tests set out in Regulation 62 for plans and projects and in Regulation 103 specifically for land use plans. Exceptionally, a plan or project could be taken forward for imperative reasons of overriding public interest where adverse effects cannot be ruled out and there are no alternative solutions. It should be noted that meeting these tests is a rare occurrence and ordinarily, competent authorities seek to ensure that a plan or project is fully mitigated for, or it does not proceed.
- 7.13 In such circumstances where a competent authority considers that a plan or project should proceed under Regulations 62 or 103, they must notify the relevant Secretary of State. Normally, planning decisions and competent authority duties are then transferred, becoming the responsibility of the Secretary of State, unless on considering the information, the planning authority is directed by the Secretary of State to make their own decision on the plan or project at the local level. The decision maker, whether the Secretary of State or the planning authority, should give full consideration to any proposed 'overriding reasons' for which a plan or project should proceed despite being unable to rule out adverse effects on European site interest features, and ensure that those reasons are in the public interest and are such that they override the potential harm. The decision maker will also need to secure any necessary compensatory measures, to ensure the continued overall coherence of the European site network if such a plan or project is allowed to proceed.

South Tyneside Interim HRA and SPD
Report 1: HRA of emerging growth options



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Figure 3: Outline of the assessment of plans under the Habitat Regulations

8. Appendix 2 – European Site Conservation Objectives

- 8.1 As required by the Directives, 'Conservation Objectives' have been established by Natural England, which should define the required ecologically robust state for each European site interest feature. All sites should be meeting their conservation objectives. When being fully met, each site will be adequately contributing to the overall favourable conservation status of the species or habitat interest feature across its natural range. Where conservation objectives are not being met at a site level, and the interest feature is therefore not contributing to overall favourable conservation status of the species or habitat, plans should be in place for adequate restoration.
- 8.2 Natural England has embarked on a project to renew all European site Conservation Objectives, in order to ensure that they are up to date, comprehensive and easier for developers and consultants to use to inform project level HRAs in a consistent way. In 2012, Natural England issued a new a set of generic European site Conservation Objectives, which should be applied to each interest feature of each European site. These generic objectives are the first stage in the project to renew conservation objectives, and the second stage, which is to provide more detailed and site-specific information for each site to support the generic objectives, is now underway.
- 8.3 The new list of generic Conservation Objectives for each European site includes an overarching objective, followed by a list of attributes that are essential for the achievement of the overarching objective. Whilst the generic objectives currently issued are standardised, they are to be applied to each interest feature of each European site, and the application and achievement of those objectives will therefore be site specific and dependant on the nature and characteristics of the site. The second stage, provision of the more supplementary information to underpin these generic objectives, will provide much more site-specific information, and this detail will play a fundamental role in informing HRAs, and importantly will give greater clarity to what might constitute an adverse effect on a site interest feature.
- 8.4 In the interim, Natural England advises that HRAs should use the generic objectives and apply them to the site-specific situation. This should be supported by comprehensive and up to date background information relating to the site.
- 8.5 For SPAs, the overarching objective is to:
- 8.6 'Avoid the deterioration of the habitats of qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.'
- 8.7 This is achieved by, subject to natural change, maintaining and 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 populations of the qualifying features.
- The distribution of the qualifying features within the site.

8.8 For SACs, the overarching objective is to:

'Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features.'

8.9 This is achieved by, subject to natural change, maintaining and restoring:

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

8.10 Conservation objectives inform any HRA of a plan or project, by identifying what the interest features for the site should be achieving, and what impacts may be significant for the site in terms of undermining the site's ability to meet its conservation objectives.

8.11 For marine European sites, the conservation objectives advice has provided as a result of a different work programme within Natural England. All marine sites have the benefit of specific advice in relation to conservation objectives known as the 'Regulation 33' advice. This is because the need to provide conservation objective related advice for marine sites was set out under Regulation 33 (of the original 1994 version of the Habitats Regulations).

8.12 Both supplementary advice and Regulation 33 advice highlight the importance of particular supporting habitats, processes or ecological characteristics that are critical to the interest features of the site. These are dealt with slightly differently between the supplementary advice and Regulation 33 advice for marine sites. Within the Regulation 33 advice these are normally referred to as sub-features, and generally include supporting habitats. Within the supplementary advice these are normally referred to as attributes, and can refer to a range of ecological characteristics such as population number.