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Initial report to inform the Habitats Regulations Assessment of the South Tyneside Local Plan, (to accompany Regulation 18 version of the Plan)

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Summary

The Conservation of Habitats and Species Regulations 2017 (as amended) require local authorities to assess the impact of their local plan on the internationally important sites for biodiversity in and around their administrative areas. Together, these Special Protection Areas, Special Areas of Conservation and Ramsar sites are known as European sites. The task is achieved by means of a Habitats Regulations Assessment (HRA).

An HRA asks very specific questions of a plan. Firstly, it 'screens' the plan to identify if there is a risk that certain policies or allocations may have a 'likely significant effect' on a European site, alone or (if necessary) in-combination with other plans and projects. If the risk of likely significant effects can be ruled out, then the plan may be adopted but if they cannot, the plan must be subjected to the greater scrutiny of an 'appropriate assessment' to find out if the plan will have an 'adverse effect on the integrity' of the European sites.

Following an appropriate assessment, a Plan may only be adopted if an adverse effect on the integrity of the site can be ruled out. If necessary, a plan should be amended to avoid or mitigate any likely conflicts. This usually means that some policies or allocations will need to be modified or, more unusually, may have to be removed altogether.

This report accompanies the South Tyneside Local Plan at the Draft Plan, Regulation 18 stage. A complete HRA will be finalised alongside the submission version of the Plan and therefore at this earlier stage the report provides an initial screening and consideration of appropriate assessment topics, in particular highlighting where further information or evidence will be necessary to inform the next iteration of the HRA.

The initial screening has highlighted likely significant effects alone in relation to:

- Air quality (Durham Coast SAC, Northumbria Coast SPA/Ramsar);
- Hydrological issues (Durham Coast SAC, Northumbria Coast SPA/Ramsar); and
- Recreation (Durham Coast SAC, Northumbria Coast SPA/Ramsar).

These topics are therefore ones which we have addressed in more depth and reviewed the information that will be necessary to undertake the appropriate assessment. We identify that prior to submission, the following are required:

- Checks with the statutory agencies are made in relation to hydrological issues, especially with respect to the Durham Coast SAC.
- Natural England's advice on air quality impacts for the Durham Coast SAC is sought;
- Further traffic modelling is necessary (including growth within South Tyneside and neighbouring authorities) and the implications of any changes in terms of air quality may also be necessary.

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1. Introduction

Overview

1.1 This report provides the initial work to inform the Habitats Regulations Assessment (HRA) emerging Local Plan for South Tyneside ('the Plan') and has been prepared by Footprint Ecology on behalf of South Tyneside Council. A HRA assesses the implications of a plan for legally protected European sites.

1.2 The HRA will be updated with each version of the plan, this report accompanies the draft plan at the 'Regulation 18' stage, and is based on a version of the plan provided to Footprint Ecology in early 2022. The HRA will be updated and further expanded to accompany each version of the Plan and will be finalised once the Plan is ready for adoption.

The Plan

1.3 South Tyneside covers 64 sq. km and includes the towns of South Shields, Hebburn and Jarrow and the villages of Boldon, Cleadon and Whitburn. The Borough has a rich cultural heritage, spectacular scenery, and a strong community spirit. Sitting within the Tyne and Wear conurbation, natural boundaries include the River Tyne to the North and the North Sea to the East. The northern part of South Tyneside is densely developed, and the built-up area extends to the coast. This contrasts with the southern part of the Borough where the Boldons, Cleadon and Whitburn are separated from the conurbation, and each other, by farmland.

1.4 The resident population of the Borough was estimated to be 151,936 in 2021 which is based on the 2021 population estimate from the 2018-based Office for National Statistics (ONS) population projections.

1.5 The Local Plan proposes a strategy for the future development of South Tyneside Borough until 2039. It will set out strategic and detailed planning and development management policies, land allocations for housing, employment and mixed use and will identify areas in the district for protection.

1.6 A consultation on a Pre-Publication Draft Local Plan took place in 2019 (and was also accompanied by an HRA: Hoskin et al., 2019). The Council received 18,898 comments (representations) in response to the Local Plan consultation.

Following this consultation and a review of Spatial Options, a new Draft Local Plan has been produced and is the subject of this HRA.

1.7 Background to the emerging Local Plan and the evidence base that accompanies it can be found on the Council's website[1].

Habitats Regulations Assessment process

1.8 The designation, protection and restoration of European wildlife sites is embedded in the Conservation of Habitats and Species Regulations 2017, as amended, which are commonly referred to as the 'Habitats Regulations'. Importantly, the most recent amendments (the Conservation of Habitats and Species (amendment) (EU Exit) Regulations 2019[2]) take account of the UKs departure from the EU.

1.9 Regulation 105 *et seq* addresses the assessment of local plans and determines the scope of this HRA alongside recent Government Guidance on the interpretation and application of the Regulations[3] .

European sites

1.10 'European sites' are the cornerstone of UK nature conservation policy. Each forms part of a 'national network' of sites that are afforded the highest degree of protection in domestic policy and law. They comprise Special Protection Areas (SPA) classified under the 1979 Birds Directive and Special Areas of Conservation (SAC) designated under the 1992 Habitats Directive. As a matter of policy, potential SPAs (pSPAs), possible SACs (pSACs) and those providing formal compensation for losses to European sites, are also given the same protection[4].

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[1] https://www.southtyneside.gov.uk/article/36012/Emerging-Local-Plan

[2] The amending regulations generally seek to retain the requirements of the 2017 Regulations but with adjustments for the UK's exit from the European Union. See Regulation 4, which also confirms that the interpretation of these Regulations as they had effect, or any guidance as it applied, before exit day, shall continue to do so.

[3] Habitats regulations assessments: protecting a European site. Defra and Natural England. 24 February 2021. https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site (accessed 31 August 2021)

[4] For the avoidance of doubt, the list of statutory European sites also comprises: A site submitted by the UK to the European Commission (EC) before Exit Day (a candidate SAC or cSAC) as eligible for selection as a Site of Community Importance (SCI) but not yet entered on the ECs list of SCI, until such time as the Appropriate Authority has designated the site or it has notified the statutory nature conservation body that it does not intend to designate the site. After Exit Day, no further cSACs will be submitted to the EU. Statutory European sites also include SCI included on a list of

1.11 Together, the network comprises over 275 sites extending over 3,750,000ha[5], and safeguards the most valuable and threatened habitats and species across the country and Europe. Prior to Brexit, this formed part of the EU-wide Natura 2000 network of SPAs and SACs to form the largest, coordinated network of protected areas in the world.

1.12 The designations made under the European Directives still apply and the term, 'European site' remains in use. According to long-established Government policy[6], European sites also comprise 'Wetlands of International Importance' (or Ramsar sites) although these do not form part of the national network.

1.13 The overarching objectives of the national network is to maintain, or where appropriate, restore habitats and species listed in Annexes I and II of the Habitats Directive to a Favourable Conservation Status, and contribute to ensuring, in their area of distribution, the survival and reproduction of wild birds and securing compliance with the overarching aims of the Wild Birds Directive.

1.14 The appropriate authorities must have regard to the importance of protected sites, coherence of the national site network and threats of degradation or destruction (including deterioration and disturbance of protected features) on SPAs and SACs.

Role of the competent authority

1.15 The finalised HRA will help the Council discharge its duties under the Habitats Regulations. However, the Council is the competent authority, and it must decide whether to accept the subsequent HRA or otherwise. Further, it should be noted that the final HRA will have been prepared for the purposes of preparing and examining the Plan. Individual allocations will need to be reviewed when they become the subject of an individual planning application, to ensure that if further assessment under the Habitats Regulations is necessary, it is undertaken in accordance with the requirements of appropriate assessment.

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such sites by the European Commission from cSACs submitted by the UK before the UK left the EU, until such time as the UK designates the site when it will become a fully designated SAC.

[5] https://jncc.gov.uk/our-work/special-protection-areas-overview/ (accessed 31 August 2021)

[6] ODPM Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System (16 August 2005), to be read in conjunction with the current NPPF, other Government guidance and the current version of the Habitats Regulations.

Process

1.16 The step-by-step process of HRA is summarised in Figure 1. Though dated prior to the latest amendments made to to the Regulations in 2019, the same tests still apply and it remains valid.

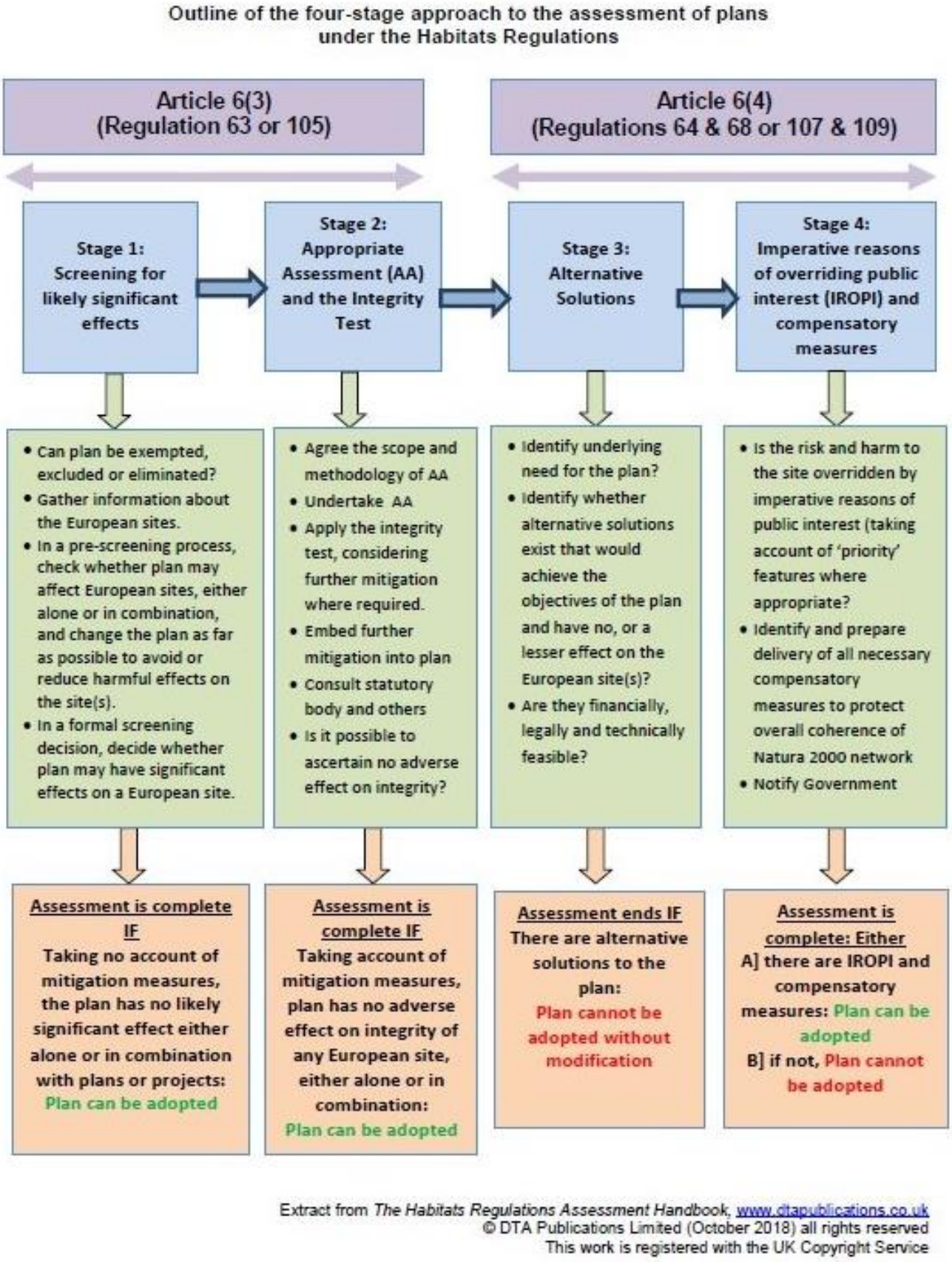

Figure 1: Outline of the assessment of plans under the Habitat Regulations

1.17 Throughout all stages, there is a continual consideration of the options available to avoid and mitigate any identified potential impacts. A competent authority may consider that there is a need to undertake further levels of evidence gathering and evaluation at the appropriate assessment stage in order to provide the necessary certainty. At this point the competent authority may identify the need to add to or modify the plan in order to adequately protect the European site, and these mitigation measures may be added through the imposition of particular restrictions and conditions.

1.18 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.

1.19 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.

1.20 After completing an assessment, a competent authority should only adopt 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.

1.21 Where adverse effects cannot be ruled out, further exceptional tests are set out in Regulation 107. In exceptional cases, this allows a plan to be taken forward where there are no 'alternative solutions', where 'imperative reasons of overriding public interest' apply and where compensation can be delivered. It should be noted that meeting these tests is a rare last resort and ordinarily, competent authorities seek to ensure that a plan or project is fully mitigated for, or it does not proceed.

1.22 In such circumstances where a competent authority considers that a plan should proceed under Regulations 107, 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. However, it is understood that the Council would not wish to pursue these derogations.

Definitions, references to case law and guidance

1.23 This HRA follows principles of case law, both UK and EU. It also refers as appropriate to the Habitats Regulations Assessment Handbook (Tyldesley & Chapman, 2021), to which Footprint Ecology subscribes. We also follow relevant government guidance.

1.24 Drawing on the Handbook, other relevant guidance and case law, we clarify the following terms used in the flow chart (Figure 1):

1.25 In Stage 1, A '**likely significant effect'** following Waddenzee[7], is a '*possible significant effect; one whose occurrence cannot be excluded on the basis of objective information*'. It is a low threshold and simply means that there is a risk or doubt regarding such an effect. The screening stage is a preliminary examination, sometimes described as a coarse filter, or following Sweetman, '*a trigger for the obligation to carry out an appropriate assessment*'. There should however be credible evidence to show that there is a real rather than a hypothetical risk of effects that could undermine a site's conservation objectives. This was amplified in the Bagmoor Wind[8] case where '*if the absence of risk… can only be demonstrated after a detailed investigation, or expert opinion,* [then] *the authority must move from preliminary examination to appropriate assessment'.*

[7] Waddenzee: European Courts C-127/02 Waddenzee 7th September 2004, reference for a preliminary ruling from the Raad van State.
[8] Bagmoor Wind: UK courts Bagmoor Wind v The Scottish Ministers, Court of Session [2012] CSIH 93

1.26 Following the People Over Wind judgement[9], when making screening decisions for the purposes of deciding whether an appropriate assessment is required, competent authorities cannot take into account any mitigation measures.

1.27 Stage 2 involves the **appropriate assessment and integrity test**. Here a plan can only be adopted if the competent authority can demonstrate that it will not adversely affect the integrity of the European site. This is a precautionary approach and means it is necessary to show the absence of harm.

1.28 Following Champion[10] '**appropriate'** is not a technical term but simply indicates that the assessment needs to be appropriate to the task in hand.

1.29 The **integrity** of a European site has been described as the 'coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified[11]. An alternative definition, after Sweetman[12], is 'the lasting preservation of the constitutive characteristics of the site'.

1.30 In terms of the burden of proof, the HRA of development plans was first made a requirement in the UK following a ruling by the European Court of Justice in EC v UK[13]. However, the judgement[14] recognised that any assessment had to reflect the actual stage in the strategic planning process and the level of evidence that might or might not be available. This was given expression in the High Court (Feeney)[15] which stated: "*Each … assessment … cannot do more than the level of detail of the strategy at that stage permits*".

1.31 The need to consider possible **in-combination** effects arises at stage 1 – the screening and also at stage 2 – the appropriate assessment and integrity test. The effects of the plan in-combination with other plans or projects are the cumulative effects which will or might arise from the addition of the effects of

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[9] People Over Wind: European Count Case C-323/17 People Over Wind & Peter Sweetman v Coillte Teoranta 12 April 2018
[10] Champion: UK Supreme Court [2015] UKSC 52 22nd July 2015
[11] Para 20 of the ODPM Circ. 06/2005
[12] Sweetman: European Court C – 258/11 Sweetman 11th April 2013, reference for a preliminary ruling from the Supreme Court of Ireland
[13] Commission v UK (C-6/04) [2005] ECR 1-9017
[14] Commission of the European Communities v UK Opinion of Advocate General Kokott
[15] Feeney: Feeney v Oxford City Council [2011] EWHC 2699 (Admin) . 24th October 2011

other relevant plans or projects alongside the plan under consideration. If during the stage 1 screening it is found the subject plan would have no likely effect alone, but might have such an effect in-combination then the appropriate assessment at stage 2 will proceed to consider cumulative effects. Where a plan is screened as having a likely significant effect alone, the appropriate assessment should initially concentrate on its effects alone. Exceptionally, the Wealden decision[16] requires the impacts of air pollution to be considered alone and in-combination.

[16] Wealden District Council v Secretary of State for Communities and Local Government, Lewes District Council and the South Downs National Park Authority (Defendants) and Natural England (Interested Party) [2017] EWHC 351 (Admin).

2. European sites

Overview of potentially relevant European sites

2.1 We have used 20km from the Borough as an initial area of search (20km providing a reasonable area of search within which policies could reasonably be considered to generate measurable effects). This search identified the following European sites:

2.2 European sites within 20km are are:

- Durham Coast SAC
- Northumbria Coast SPA/Ramsar
- Northumberland Marine SPA.

2.3 These are shown in Map 1 and described in more detail below. Appendix 1 summarises the generic conservation objectives for these sites and then the Appendix 2 summarises the qualifying features of each and provides links to further information on each site.

Durham Coast

2.4 The Durham Coast SAC covers large stretches of the coastline between South Shields and Blackhall Rocks, including about a third of the Sunderland coastline. It is important due to its vegetated sea cliffs on magnesian limestone which are unique in the British Isles. The vegetation includes a mix of maritime-influenced, calcareous and species-rich-neutral grasslands, tall-herb fen, seepage flushes and wind-pruned scrub.

2.5 Historically, colliery spoil was deposited at the base of the cliffs, which has disrupted the natural processes such as erosion and salt spray that make this area unique. It is also threatened by scrub encroachment and non-native invasive species such as Himalayan Balsam. In parts of the SAC, nutrient enrichment is changing the vegetation. This is caused by fertiliser run-off from arable land and also dog fouling. Illegal use of motorbikes, quadbikes and 4x4s is also an issue in certain areas along the coast, which is leading to erosion and damage to vegetation.

2.6 Prioritised issues for the site, as summarised in Natural England's site improvement plan[17] are:

[17] See http://publications.naturalengland.org.uk/publication/5113930540122112

- Natural changes to site conditions;
- Inappropriate coastal management;
- Invasive species;
- Fertiliser use;
- Vehicles: illicit;
- Change to site conditions;
- Public Access/disturbance.

Northumbria Coast

2.7 The Northumbria Coast SPA and Northumbria Coast Ramsar site cover several sections of rocky foreshore between Spittal in Northumberland and Blackhall Rocks in County Durham. These two sites overlap with part of the Durham Coast SAC. The rocky shore includes cliffs, crags/ledges, intertidal rock, open coast and pools. The site also includes a small, sandy beach and artificial piers.

2.8 This area supports internationally important populations of over-wintering Purple Sandpiper and Turnstone, which feed on marine invertebrates found on the rocky shore and amongst seaweed. Parts of three piers are used as roosting sites.

2.9 A breeding colony of Little Terns and Arctic Terns is situated in the northern part of the SPA/Ramsar, at the mouth of the Long Nanny burn in Beadnell Bay and Little Terns also breed to the south, in Durham at Crimdon Dene. These birds are very vulnerable to human disturbance, as well as predation and high tides. Over the summer, a team of wardens is based at Long Nanny to protect and closely monitor the tern colony.

2.10 Prioritised issues for the site, as summarised in Natural England's site improvement plan[18] are:

- Public access/disturbance;
- Water pollution;
- Invasive species;
- Changes in species distributions;
- Predation;
- Coastal squeeze;
- Direct impact from third party;

[18] Which covers multiple different European sites, See http://publications.naturalengland.org.uk/publication/5340976100933632

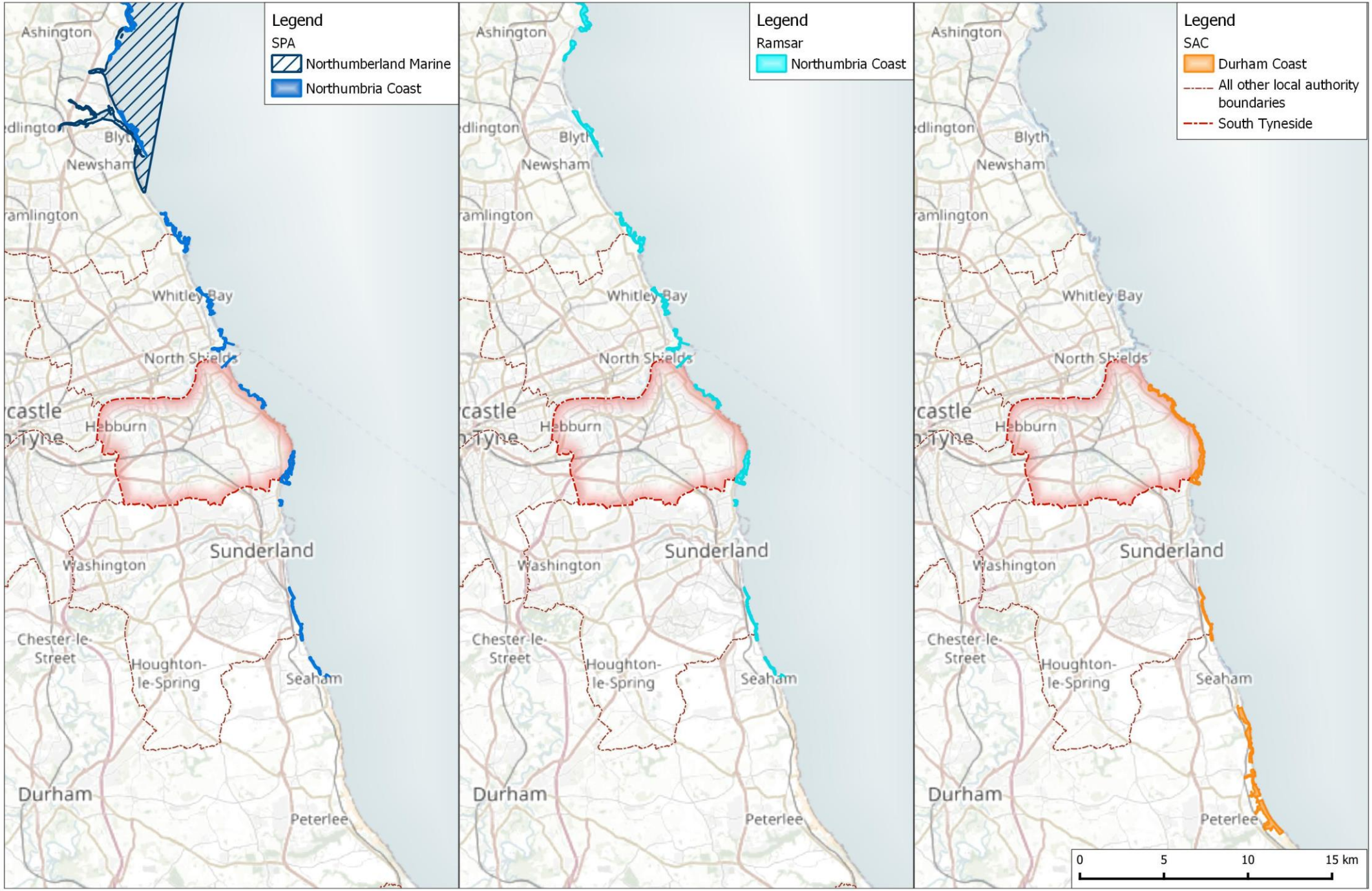
- Transportation and service corridors;
- Change in land management;
- Air pollution: risk of atmospheric nitrogen deposition;
- Fisheries: Commercial marine and estuarine.

Northumberland Marine SPA

2.11 The Northumberland Marine SPA is located on the Northumberland coast between Blyth and Berwick-Upon-Tweed. The site supports a wide range of marine habitats. The coastal parts of the site consist of sandy bays separated by rocky headlands backed by dunes or soft and hard cliffs. There are extensive areas of inter-tidal rocky reef, long sandy beaches at Beadnell, Embleton and Druridge Bay and extensive sand and mud flats at Budle Bay and Fenham Flats at Lindisfarne. Discrete areas of intertidal mudflats and estuarine channels are also included where the site extends into the Aln, Coquet, Wansbeck and Blyth estuaries. The open coast habitats extend into the subtidal zone, where large shallow inlets and bays and extensive rocky reefs are present. Further offshore, soft sediments predominate.

2.12 The Northumberland coast and surrounding sea supports important breeding colonies of seabirds and auks, protected at four existing SPAs: Farne Islands SPA, Coquet Island SPA, Lindisfarne SPA and Northumbria Coast SPA. The surrounding waters are protected by Northumberland Marine SPA, these areas are used by the seabirds and auks for foraging and maintenance activities, such as bathing and preening.

Map 1: European designated sites within 20km of South Tyneside.



European sites to be considered in the screening

2.13 Drawing on the relative sensitivities of the European sites we can rule out the need for further consideration of Northumberland Marine SPA in this HRA. The SPA is around 10.7km from South Tyneside Borough at its closest point. Given that this is a marine SPA and provides protection for foraging seabirds and the distance the site lies from South Tyneside there are no plausible mechanisms by which the Local Plan could affect the SPA.

Impact pathways

2.14 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.

2.15 Potential pathways or issues that could be relevant with respect to the Local Plan and the Durham Coast SAC and the Northumbria Coast SPA/Ramsar are:

Urban effects

2.16 Urban effects relate to issues where development is close to the European site boundary and is an umbrella term relating to impacts such as cat predation, fly tipping, increased fire risk and vandalism (see Underhill-Day, 2005 for review).

2.17 A number of European sites[19] have a zone around the boundary where there is a presumption of no further development (net increase in residential properties). This presumption reflects the issues with urbanisation and the lack of suitable mitigation and avoidance measures. For example, for development so close to the European sites the options to divert access or provide suitable alternatives are very limited.

2.18 Where housing is directly adjacent to sites, access can occur directly from gardens and informal access points. Parking areas can be used as residential parking and access can include short-cuts and a range of other uses that are not necessarily compatible with nature conservation. Fly-tipping and dumping

[19] E.g. the Thames Basin Heaths, the Dorset Heaths, the East Devon Pebblebed Heaths, Burnham Beeches

of garden waste can be more common. As such, managing and looking after such sites can be more challenging.

2.19 Urban issues are perhaps most relevant to heathland sites, which are vulnerable to fire, nutrient enrichment and have sensitive ground-nesting birds. Urban effects are however relevant to other habitats and are a consideration for the Durham Coast SAC, where habitat features are sensitive to relatively small changes related to nutrient inputs, hydrological changes and invasive species, for example.

Hydrology and water quality

2.20 Water issues include water quality and water quantity (i.e. water availability), and flood management. Run-off, outflow from sewage treatments and overflow from septic tanks can result in increased nutrient loads and contamination of water courses. Abstraction and land management can influence water flow and quantity, resulting in reduced water availability at certain periods or changes in the flow. Such impacts particularly relate to aquatic and wetland habitats and may be exacerbated by climate change.

2.21 The Supplementary Conservation Advice for the Durham Coast SAC identifies maintaining the appropriate hydrological regime as a key step in moving towards achieving the conservation objectives for the site.

2.22 At this stage, this HRA report therefore picks up hydrological impacts which are considered within the screening for likely significant effects and discussed further in the appropriate assessment within this report.

Recreation

2.23 Harmful ecological effects from recreational pressure relate to increased numbers of people living nearby and using sites for recreation. Issues relate to a range of activities including dog walking and watersports and impacts include trampling, vegetation wear, erosion, increased fire risk (barbeques etc), dog fouling and disturbance.

2.24 The most popular destinations can draw in visitors in great numbers from considerable distances. Less popular sites, or those with fewer facilities, have a smaller catchment, fewer visitors and the issue is typically less problematic. Alternatively, some sites managed specifically to encourage large numbers of visitors may be able to tolerate these pressures without experiencing significant harm.

2.25 Importantly, whilst individual allocations, unless large and in close proximity to a fragile European site, rarely result in likely significant effects alone from recreation, a number may have a cumulative effect that can result in likely significant effects in-combination.

2.26 The issues relate to both the Durham Coast SAC and also the Northumbria Coast SPA/Ramsar. The SAC habitats are vulnerable to trampling, dog fouling, barbeques and the spread of non-native species and furthermore there is the risk of access infrastructure limiting the natural processes around the cliffs. For the SPA/Ramsar, disturbance is the principal risk and relevant to wintering Purple Sandpiper and Turnstone. Arctic Tern and Little Tern are scoped out due to the locations of the nesting sites – with the key colonies at Beadnell and Crimdon being very distant and there being a lack of potential breeding habitat close to South Tyneside. There is therefore no credible risk for this species.

2.27 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 bird 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. Areas of interface where sandy beaches used for recreation meet the rocky foreshore are particularly prone to this kind of disturbance.

2.28 Concerns about recreation impacts are long standing and the Council has a mitigation strategy in place to address the issues.

Air quality

2.29 Development is typically associated with increased traffic and emissions which can increase the airborne concentration of nitrogen oxides (NO_x) and ammonia (NH_3), and the subsequent rate of nitrogen deposition from the atmosphere. This can lead to the nutrient enrichment and acidification of soils, encouraging more tolerant ruderal species at the expense of sensitive plant, lower plant and invertebrate communities. In high concentrations, ammonia can result in direct toxic effects on vegetation, a factor which may also be true of NO_x. Furthermore, it can exacerbate the effects of other factors such as climate change or pathogens, for example. In contrast, larger animals, such as small mammals and birds are considered immune to direct effects but can be vulnerable to change in their supporting habitats.

2.30 However, levels of nitrogen deposition fall quickly in the first few metres from the roadside before gradually levelling out; beyond 200m, they become difficult to distinguish from background levels. In other words, impacts at 10m, 50m or 200m can be very different from those at the roadside. Importantly, and building on case law in Sussex (the Wealden case)[20], the assessment of air pollution must be undertaken in-combination with plans and projects in neighbouring authorities and further afield.

2.31 It can be seen, therefore, that the additional contributions that might arise from increased traffic are only likely to be significant where a European site lies within 200m of a road which is expected to experience an increase of traffic, and where a feature is known to be sensitive to such effects. Such relatively simple tests essentially represent the scope of a screening assessment leaving more detailed analysis and its relationship to the ecological characteristics of the European sites at risk to the appropriate assessment, should any European sites fall into the above categories. Both the Northumbria Coast SPA/Ramsar and the Durham Coast SAC have main roads within 200m of the coast within South Tyneside and nearby. The Durham Coast SAC is sensitive to air pollution and the supplementary advice for this site highlights that critical loads/levels are being breached.

[20] Wealden District Council v Secretary of State for Communities and Local Government, Lewes District Council and the South Downs National Park Authority (Defendants) and Natural England (Interested Party) [2017] EWHC 351 (Admin).

3. Stage 1: Screening for likely significant effects

3.1 This section documents the screening stage of HRA (stage 1 of the 4 stage process), where the plan is screened for likely significant effects.

3.2 The screening for likely significant effects of a plan involves checking all aspects of the plan and identifying any areas of potential concern, which are then examined in more detail in the appropriate assessment (stage 2) of the HRA. The check for likely significant effects provides an initial test of the plan. It is undertaken to enable the plan maker as competent authority to do two things. Firstly, it narrows down and highlights those elements of the plan that may pose a risk to European sites. Secondly, where an option poses a risk but is a desired element of the plan, the screening exercise identifies where further assessment is necessary in order to determine the nature and magnitude of potential impacts on European sites and what could be done to avoid, cancel, reduce or eliminate those risks. Further assessment and evidence gathering after early screening may include, for example, the commissioning of additional survey work, modelling, researching scientific literature or setting out justifications in accordance with expert opinion.

What constitutes a likely significant effect?

3.3 Where the screening identifies risks that cannot be avoided with simple clarifications, corrections or instructions for project level HRA, a more detailed assessment is undertaken to gather more information about the likely significant effects and give the necessary scrutiny to potential mitigation measures. This is the appropriate assessment stage of HRA.

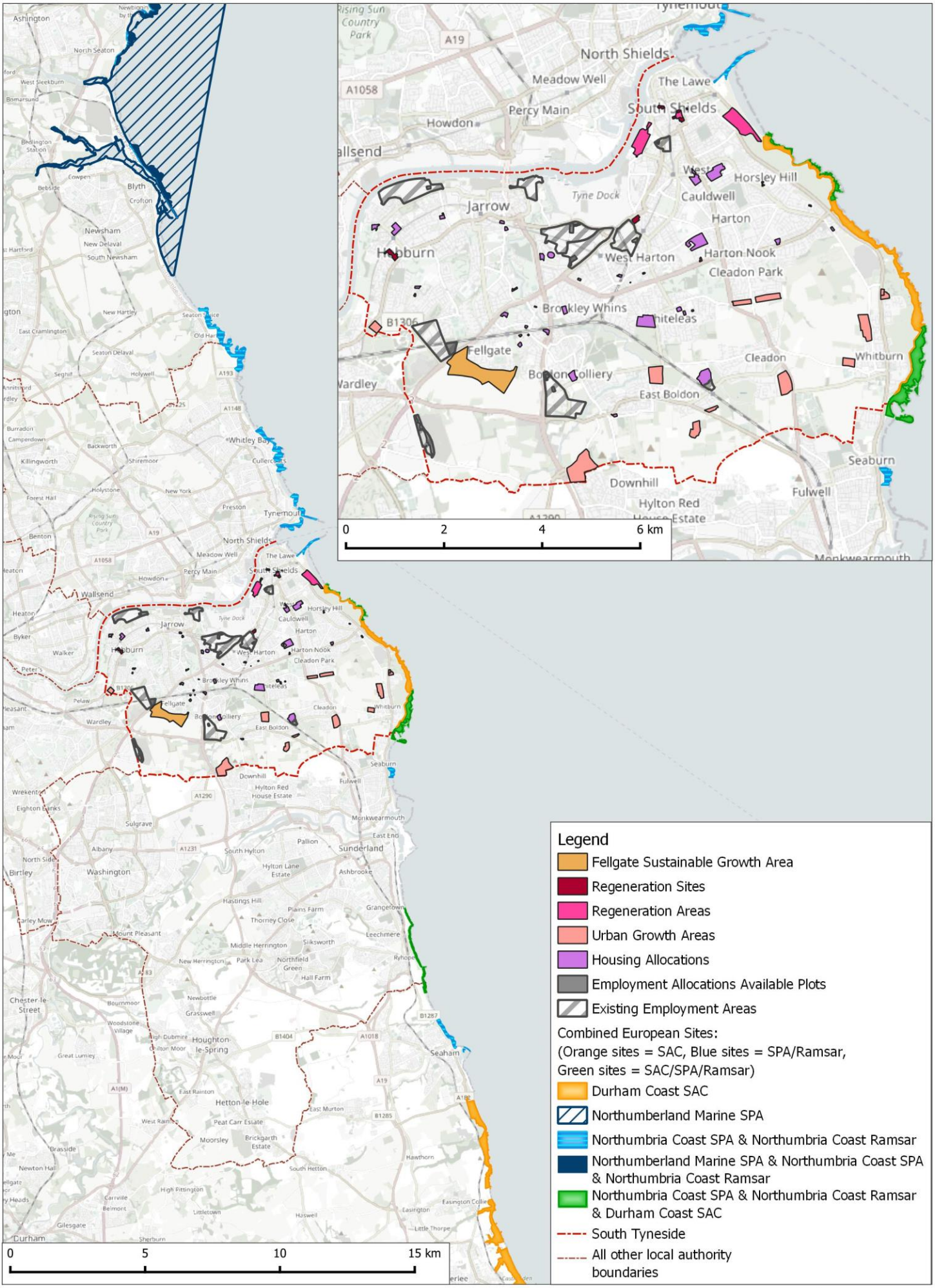
3.4 A likely significant effect could be concluded on the basis of clear evidence of risk to European site interest, or there could be a scientific and plausible justification for concluding that a risk is present, even in the absence of direct evidence. The latter is an example of the precautionary approach, which is embedded through the HRA process. The precautionary principle should be applied at all stages in the HRA process and follows the principles established in domestic and EU case law.

3.5 The screening in this report looks at policies prior to any avoidance/reduction/mitigation measures in line with People Over Wind[21]; mitigation can only be considered at Appropriate Assessment stage. People Over Wind clarified the need to carefully explain actions taken at each HRA stage, particularly at the screening for likely significant effects stage. The Judgment highlights the need for clear distinction between the stages of HRA, and good practice in recognising the function of each. The screening for likely significant effects stage should function as a screening or checking stage (regardless of avoidance, reduction/mitigation measures), to determine whether further assessment is required. Assessing the nature and extent of potential impacts on European site interest features, and the robustness of mitigation options, should be done at the appropriate assessment stage.

3.6 Allocations and key aspects of the Plan are shown in Map 2 which helps inform the screening.

[21] People Over Wind: European Count Case C-323/17 People Over Wind & Peter Sweetman v Coillte Teoranta 12 April 2018

Map 2: Local Plan allocations and European Sites.



The screening

3.8 The screening for likely significant effects within Table 1 below provides the screening assessment for the South Tyneside Draft Local Plan. The screening covers the whole plan.

Table 1: Initial screening of the Plan for likely significant effects. Grey shading and bold text indicate section headings, bold text without the grey shading reflects chapter headings. Blue shading reflects initial findings of likely significant effects (LSE).

Plan section or policy	Initial LSE screening	Potential risks	Comments
Section1: Introduction			
1 Introduction	Administrative text. Screened out.		
2 South Tyneside	Administrative text. Screened out.		
Section 2: Spatial Visit and Spatial Strategy			
3 Spatial vision and strategic objectives	General aspirations. Screened out.		Includes 11 themes and 16 strategic objectives which provide the framework for the more detailed content of the plan
4 Strategy for sustainable development	Introductory text to section. Screened out		
Policy SP1: Presumption in favour of Sustainable Development	General criteria for testing the acceptability/sustainability of proposals. Screened out		
Policy SP2: Strategy for Sustainable Development to meet identified needs	Policy may have a likely significant effect on a European site alone. LSE	Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Air Quality, Hydrology and Recreation.	Sets the overall quantum of growth, including overall target to deliver approximately 5778 new homes and a minimum of 18.3ha of land for general economic development.
Policy SP3: Spatial Strategy for sustainable development	General criteria for testing the acceptability/sustainability of proposals. Screened out		Strategic policy setting broad spatial strategy but no specific levels of growth at specific locations.
Policy SP4: Housing Allocations in the Main Urban Area	Policy may have a likely significant effect on a European site alone. LSE	Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in	Allocates 40 sites (with an overall indicative capacity of 1782)

Plan section or policy	Initial LSE screening	Potential risks	Comments
		relation to Air Quality, Hydrology and Recreation.	
Policy SP5: Urban and Village Sustainable Growth Areas	Policy may have a likely significant effect on a European site alone. LSE	Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Air Quality, Hydrology and Recreation.	Allocates 12 specific sites with indicative capacity of 2187 dwellings
Policy SP6: Fellgate Sustainable Growth Area	Policy may have a likely significant effect on a European site alone. LSE	Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology and Recreation. Risks in-combination in relation to Air Quality.	Sustainable urban extension to deliver at least 1200 homes. Screened in for in-combination effects for air quality given overall quantum of growth in the plan (SP2).
Policy SP7: South Shields Riverside Regeneration Area	Policy may have a likely significant effect on a European site alone. LSE	Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology and Recreation. Risks in-combination in relation to Air Quality.	3 allocations including some with mixed use with 348 dwellings at RG1. Proposals will include a new promenade with access to the riverside area and hotel development. Screened in for in-combination effects for air quality given overall quantum of growth in the plan (SP2).
Policy SP8: Tyne Dock Estate Regeneration Site	Policy may have a likely significant effect on a European site alone. LSE	Risks alone for Durham Coast SAC	Allocation for approximately 65 homes will enhance public

Plan section or policy	Initial LSE screening	Potential risks	Comments
		and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality and Recreation.	open space. Screened in for in-combination effects for air quality given overall quantum of growth in the plan (SP2).
Policy SP9: South Shields Town Centre College Regeneration Site	Policy which might be likely to have a significant effect in combination. LSE	Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality and Recreation.	Allocation for Campus and Marine School. Screened in for in-combination effects for air quality given overall quantum of growth in the plan (SP2).
Policy SP10: Salem Street Housing-led Regeneration Site	Policy may have a likely significant effect on a European site alone. LSE	Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality and Recreation.	Allocation for approximately 18 homes. Screened in for in-combination effects for air quality given overall quantum of growth in the plan (SP2).
Policy SP11: Queen Street Housing-led Regeneration Site	Policy may have a likely significant effect on a European site alone. LSE	Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination	Allocation for approximately 20 homes. Screened in for in-combination effects for air quality given overall quantum of growth in the plan (SP2).

Plan section or policy	Initial LSE screening	Potential risks	Comments
		in relation to Air Quality and Recreation.	
Policy SP12: Hebburn New Town Housing-led Regeneration site	Policy may have a likely significant effect on a European site alone. LSE	Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality and Recreation.	Allocation for approximately 161 homes. Screened in for in-combination effects for air quality given overall quantum of growth in the plan (SP2).
Policy SP13: Regeneration Improvement Areas	Policy may have a likely significant effect on a European site alone. LSE	Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality and Recreation.	Allocations provision for approximately 90 homes. Also includes the foreshore area and potential improvements to the promenade towards Trow Point. Screened in for in-combination effects for air quality given overall quantum of growth in the plan (SP2).
Policy SP14: Employment Land for General Economic Development	Policy which might be likely to have a significant effect in combination. LSE	Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality.	Sites allocated for general economic development. Screened in for in-combination effects for air quality given overall quantum of growth in the plan (SP2). .

Plan section or policy	Initial LSE screening	Potential risks	Comments
Policy SP15: Wardley Colliery	Policy which might be likely to have a significant effect in combination. LSE	Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality.	Around 7.2km from Durham Coast SAC and near the A184/194 junction meaning risks are low. Screened in for in-combination effects for air quality on a precautionary basis given overall quantum of growth in the plan (SP2).
Policy SP16: Provision of Land for Port and River-Related Development	Policy which might be likely to have a significant effect in combination. LSE	Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation and to Hydrology. Risks in-combination in relation to Air Quality and to Recreation.	Sites allocated for port-related economic development. Most are well away from the European sites and unlikely to result in increased road traffic near the coast. Screened in on a precautionary basis for in-combination effects for air quality given overall quantum of growth in the plan (SP2). Screened in on a precautionary basis for recreation impacts as the mouth of the Don and adjacent mud flats may be functional land for the SPA and potential for disturbance.
Section 3 Thematic Policies			
5 Promoting Healthy communities	Introductory text to section. Screened out.		

Plan section or policy	Initial LSE screening	Potential risks	Comments
Policy 1: Promoting Healthy Communities	Policy listing general criteria for testing the acceptability/sustainability of proposals. Screened out.		
Policy 2: Air Quality	Policy listing general criteria for testing the acceptability/sustainability of proposals. Screened out.		Policy requires air quality assessments, including predictions of change. As such likely to be beneficial and include assessment of impacts to nature conservation sites. Policy not however specific to HRA issues and broad in scope, without specifying mitigation (and therefore not needing to be screened in, after *People Over Wind*).
Policy 3: Pollution	Policy listing general criteria for testing the acceptability/sustainability of proposals. Screened out.		
Policy 4: Contaminated Land and Ground Stability	Policy listing general criteria for testing the acceptability/sustainability of proposals. Screened out.		
7 Meeting the challenge of climate change, flooding and coastal change	Introductory text to section. Screened out.		
Policy SP17: Climate Change	Policy listing general criteria for testing the acceptability/sustainability of proposals. Screened out.		
Policy 5: Reducing energy consumption and carbon emissions	Policy listing general criteria for testing the acceptability/sustainability of proposals. Screened out.		

Plan section or policy	Initial LSE screening	Potential risks	Comments
Policy 6: Renewables and Low Carbon Energy Generation	Policy listing general criteria for testing the acceptability/sustainability of proposals and plan-wide environmental protection. Screened out.		Policy general in scope and supports wind energy development which could pose risks for birds associated with the Northumbria Coast SPA. Proposals are identified on the map, but are not allocations and the policy ensures project level HRA where potential for impacts to European sites.
Policy 7: Flood Risk and Water Management	Policy listing general criteria for testing the acceptability/sustainability of proposals. Screened out.		
Policy 8: Flood Risk Assessment (FRA) and Drainage Strategy	Policy listing general criteria for testing the acceptability/sustainability of proposals. Screened out.		
Policy 9: Sustainable Drainage Systems	Policy listing general criteria for testing the acceptability/sustainability of proposals. Screened out.		
Policy 10: Disposal of Foul Water	Policy listing general criteria for testing the acceptability/sustainability of proposals. Screened out.		
Policy 11: Protecting Water Quality	General plan-wide environmental protection policy. Screened out		Includes a general criteria that any development that has an adverse impact on European sites will not be permitted. Policy is not specifically intended to avoid or reduce harmful effects on

Plan section or policy	Initial LSE screening	Potential risks	Comments
			a European site and therefore does not conflict with *People Over Wind.*
Policy 12: Coastal Change	General plan-wide environmental protection policy. Screened out		
6 Delivering a mix of homes	Introductory text for section. Screened out.		
SP18: Housing Supply and Delivery	Policy may have a likely significant effect on a European site alone. LSE	Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Air Quality, Hydrology and Recreation.	General policy linking to SP2 and setting the overall quantum of growth of approximately 5307 new homes. Screened in for in-combination effects for air quality given overall quantum of growth in the plan (SP2).
Policy 13: Windfall and Backland sites	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 14: Housing Density	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 15: Existing Homes	Policy that cannot have any conceivable adverse effect on a site. Screened out.		
Policy 16: Houses in Multiple Occupation	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 17: Specialist Housing – Extra Care & Supported Housing	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 18: Affordable Housing	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 19: Housing Mix	Policy listing general criteria for testing the acceptability of proposals. Screened out.		

Plan section or policy	Initial LSE screening	Potential risks	Comments
Policy 20: Technical Design Standards for New Homes	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy21: Gypsies, Travellers and Travelling Showpeople	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
9 Building a strong competitive economy	Introductory text. Screened out.		
Policy SP19: Strategic Economic Development	Policy may have a likely significant effect on a European site alone. LSE	Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality.	General policy linking to SP2 and setting the overall quantum of economic growth (portfolio of 248.5ha for general development and a further 187.2ha for specialist port).
Policy 22: Protecting Employment Uses	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 23: Employment Development beyond Employment Allocations	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 25: Leisure and Tourism	Policy listing general criteria for testing the acceptability of proposals. Screened out.		Policy is general and does not specify any particular development or change. It includes general protective wording and a general reference to the need for mitigation for recreation disturbance to European sites. Policy is not specifically intended to avoid or reduce harmful effects on a European site and therefore

Plan section or policy	Initial LSE screening	Potential risks	Comments
			does not conflict with *People Over Wind.*
10 Ensuring the vitality of centres	Introductory text to section. Screened out.		
Policy SP21: The Hierarchy of centres	Policy that cannot lead to development or other change. Screened out.		Policy simply sets hierarchy of centres and key locations for town centre investment
Policy 26: Ensuring Vitality and Viability in our Retail Centres	Policy that cannot lead to development or other change. Screened out.		
Policy 27: Prioritising Centres Sequentially	Policy that cannot lead to development or other change. Screened out.		
Policy 28: Impact Assessment	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 29: Local Neighbourhood Hubs	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 30: South Shields Market	Policy that cannot lead to development or other change. Screened out.		
Policy 31: Evening and Night-time Economy in South Shields Town Centre	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 32: Hot Food Takeaways	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
11 Conserving and enhancing the Natural Environment	Introductory text to chapter. Screened out.		
Policy SP21: Natural Environment (Strategic Policy)	General plan-wide environmental protection. Screened out.		
Policy 33: Biodiversity, Geodiversity and Ecological Networks	General plan-wide environmental protection. Screened out.		
Policy 34: Internationally, Nationally and Locally Important Sites	Bespoke area, site or case specific policy intended to avoid or reduce harmful effects on a European site. Screened in	Sets out mitigation approaches for recreation.	Policy includes specific reference to the need for mitigation for recreation impacts associated with proposals within 7.2km of

Plan section or policy	Initial LSE screening	Potential risks	Comments
			the coastal European sites. Following *People Over Wind* this cannot be taken into account in the screening and must be screened in for further consideration as part of the appropriate assessment.
Policy 35: Delivering Biodiversity Net Gain	General plan-wide environmental protection. Screened out.		
Policy 36: Protecting Trees, Woodland and Hedgerows	General plan-wide environmental protection. Screened out.		
Policy SP22: Green Infrastructure	General plan-wide environmental protection. Screened out.		Policy provides protects green spaces and expects major development to provide green space. These provisions may incidentally help protect/mitigate European sites through absorbing additional recreation use.
Policy 37: Protecting and enhancing Open Spaces & Green Infrastructure	General plan-wide environmental protection. Screened out.		
Policy SP23: Sports provision and Playing Pitches	Policy lists general criteria for testing proposals and protecting pitches etc. Screened out.		
Policy 38: Providing for Cemeteries	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 39: Areas of High Landscape Value	General plan-wide environmental protection. Screened out.		

Plan section or policy	Initial LSE screening	Potential risks	Comments
Policy 40: Agricultural Land	General plan-wide environmental protection. Screened out.		
Policy 41: Green Belt	General plan-wide environmental protection. Screened out.		
12 Conserving and Enhancing the Historic Environment	Introductory text. Screened out.		
Policy SP24: Heritage Assets	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 42: World Heritage Sites	Policy listing criteria for testing the acceptability of proposals with respect to Hadrian's Wall. Screened out.		
Policy 43: Development Affecting Designated Heritage Assets	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 44: Archaeology	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 45: Development Affecting Non-Designated Heritage Assets	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 46: Heritage At Risk	Policy that could not have any conceivable effect on a site. Screened out.		
13 Well designed places	Introductory text. Screened out.		
Policy 47 Design Principles	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 48: Promoting Good Design with New Residential Developments	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 49: Shopfronts	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 50: Advertisements	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
14 Infrastructure	Introductory text. Screened out.		
Policy SP25: Infrastructure	Policy that could not have any conceivable effect on a site. Screened out.		

Plan section or policy	Initial LSE screening	Potential risks	Comments
Policy 51: Social and community infrastructure	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 52: Telecommunications	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 53: Accessible and Sustainable Travel	Policy that could not have any conceivable effect on a site. Screened out.		
Policy 54: Improving Capacity on the Road Network	Policy that could not have any conceivable effect on a site. Screened out.		Policy includes safeguarding land, subject to feasibility studies, to allow for any future need to realign the coast road at Marsden and relocation of Lizard Point car park. This may impact European sites but is likely to be positive in allowing natural processes and redistributing access. Changes to road network may result in increased vehicle use and air quality impacts but junction improvements and key changes are away from coast.
Policy SP26: New Development	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 55: Airport and Aircraft Safety	Policy listing general criteria for testing the acceptability of proposals. Screened out.		Policy relates to development that may impact aircraft safety and would not impact the number of flights and

Plan section or policy	Initial LSE screening	Potential risks	Comments
			therefore have any implications for air quality.
15 Waste and Minerals	Introductory text. Screened out.		
Policy 56: Waste Facilities	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 57: Existing Waste Facilities	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 58: Minerals Safeguarding and Extraction	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 59: Development Management Considerations for Mineral Extraction	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Implementation and Monitoring	Introductory text. Screened out.		
Policy 60: Implementation and Monitoring	Policy that could not have any conceivable effect on a site. Screened out.		
Policy 61: Delivering Infrastructure	Policy that could not have any conceivable effect on a site. Screened out.		
Policy 62: Developer Contributions, Infrastructure Funding and Viability	Policy that could not have any conceivable effect on a site. Screened out.		

…

Initial screening conclusions

3.9 Screening has focussed on the Northumbria Coast SPA/Ramsar and the Durham Coast SAC. There are no credible risks to other European sites. For the Northumbria Coast SPA/Ramsar we have ruled out the need to consider impacts to Little Tern and Arctic Tern due to the sites where they nest being well outside South Tyneside such that there are no credible risks to these species.

3.10 We have checked for urban effects in the screening and can rule out likely significant effects from urban effects due to the scale of growth in close proximity to the coast. The Plan contains very limited levels of growth in close proximity to the coast and development is primarily set well back.

3.11 The initial screening has highlighted likely significant effects in relation to:

- Air quality (Durham Coast SAC, Northumbria Coast SPA/Ramsar);
- Hydrological issues (Durham Coast SAC, Northumbria Coast SPA/Ramsar); and
- Recreation (Durham Coast SAC, Northumbria Coast SPA/Ramsar).

3.12 The relevant policies we have screened in at this stage are:

- Policy SP2: Strategy for Sustainable Development to meet identified needs: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Air Quality, Hydrology and Recreation
- Policy SP4: Housing Allocations in the Main Urban Area: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Air Quality, Hydrology and Recreation.
- Policy SP5: Urban and Village Sustainable Growth Areas: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Air Quality, Hydrology and Recreation.
- Policy SP6: Fellgate Sustainable Growth Area: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology and Recreation. Risks in-combination in relation to Air Quality.
- Policy SP7: South Shields Riverside Regeneration Area: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology and Recreation. Risks in-combination in relation to Air Quality.
- Policy SP8: Tyne Dock Estate Regeneration Site: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality and Recreation.

- Policy SP9: South Shields Town Centre College Regeneration Site: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality and Recreation.
- Policy SP10: Salem Street Housing-led Regeneration Site: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality and Recreation.
- Policy SP11: Queen Street Regeneration Site: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality and Recreation.
- Policy SP12: Hebburn New Town Regeneration site: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality and Recreation.
- Policy SP13: Regeneration Improvement Areas: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality and Recreation.
- Policy SP14: Employment Land for General Economic Development: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality.
- Policy SP15: Wardley Colliery: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality.
- Policy SP16: Provision of Land for Port and River-Related Development: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality.
- Policy SP18: Housing Supply and Delivery: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Air Quality, Hydrology and Recreation.
- Policy SP19: Strategic Economic Development: Risks alone for Durham Coast SAC and Northumbria Coast SPA/Ramsar in relation to Hydrology. Risks in-combination in relation to Air Quality.
- Policy 34: Internationally, Nationally and Locally Important Sites: Sets out mitigation approaches for recreation.

3.13 Air quality, hydrology and recreation are therefore topics that – at this stage in the Plan making - we anticipate will require appropriate assessment. These topics we therefore consider in more depth in the later sections of the report which consider the evidence and check what additional information will be necessary to undertake the appropriate assessment.

4. Appropriate assessment topic: Air quality

4.1 The initial screening identified the potential for likely significant effects in respect to air quality for the following policies alone:

- Policy SP2: Strategy for Sustainable Development to meet identified needs;
- Policy SP4: Housing Allocations in the Main Urban Area;
- Policy SP5: Urban and Village Sustainable Growth Areas;
- SP18: Housing Supply and Delivery.

4.2 These are policies which set strategic growth and involve multiple allocations or set overall levels of housing.

4.3 The following policies relate to specific allocations or growth at specific locations and the potential for likely significant effects were identified in-combination:

- Policy SP6: Fellgate Sustainable Growth Area;
- Policy SP7: South Shields Riverside Regeneration Area;
- Policy SP8: Tyne Dock Estate Regeneration Site;
- Policy SP9: South Shields Town Centre College Regeneration Site;
- Policy SP10: Salem Street Housing-led Regeneration Site;
- Policy SP11: Queen Street Regeneration Site;
- Policy SP12: Hebburn New Town Regeneration site;
- Policy SP13: Regeneration Improvement Areas;
- Policy SP14: Employment Land for General Economic Development;
- Policy SP15: Wardley Colliery;
- Policy SP16: Provision of Land for Port and River-Related Development;
- Policy SP19: Strategic Economic Development.

Introduction

4.4 Increased growth within Local Plans is of relevance to HRAs where increased traffic volumes as a result of new growth will occur in close proximity to European sites hosting habitats that are sensitive to reduced air quality.

4.5 The screening exercise made an assessment of the risk that European sites could be affected by air pollution. In so doing, it employed established criteria (a 200m threshold) to limit the sites and qualifying features under scrutiny to the following:

- The wintering birds of the Northumbria Coast SPA;

- The wintering bird populations of the Northumbria Coast Ramsar site (which shares similar boundaries with the SPA); and
- The maritime cliff habitats of the Durham Coast SAC.

4.6 These outcomes reflected an assessment of the fragility of the qualifying features to air pollution and the presence nearby of major roads that could be anticipated to accommodate marked increases in traffic brought about by growth anticipated by the emerging Local Plan. There are two roads that triggered the key 200m threshold as follows:

- The B1344 in the north of the district at the mouth of the River Tyne where it runs in close proximity to a discrete component of the Northumbria Coast SPA/Ramsar; and
- Three discrete sections of the A183 to the east and south of the district where it runs alongside the Durham Coast SAC.

4.7 Each road is taken in turn below.

The B1344

4.8 The B1344 is a short road, approximately 2.5km, that skirts around the east and north of South Shields and adjacent to the North Sea and River Tyne, respectively. In so doing, it lies adjacent to a discrete component of the Northumbria Coast SPA/Ramsar site formed by the South Shields pier. The pier is included in the European site because it supports an important high tide roost for purple sandpiper and turnstone, both important components of the wintering bird populations of both designations.

4.9 However, despite being well within the 200m threshold, it is inconceivable that the functionality of this roost could be harmed in any way by any increase in traffic or air pollution. No further assessment is needed and there is no need to consider any other criteria normally associated with air pollution assessment.

4.10 Therefore, adverse effects on the integrity of the SPA/Ramsar can be ruled out beyond reasonable scientific doubt in combination with other plans or projects.

A183

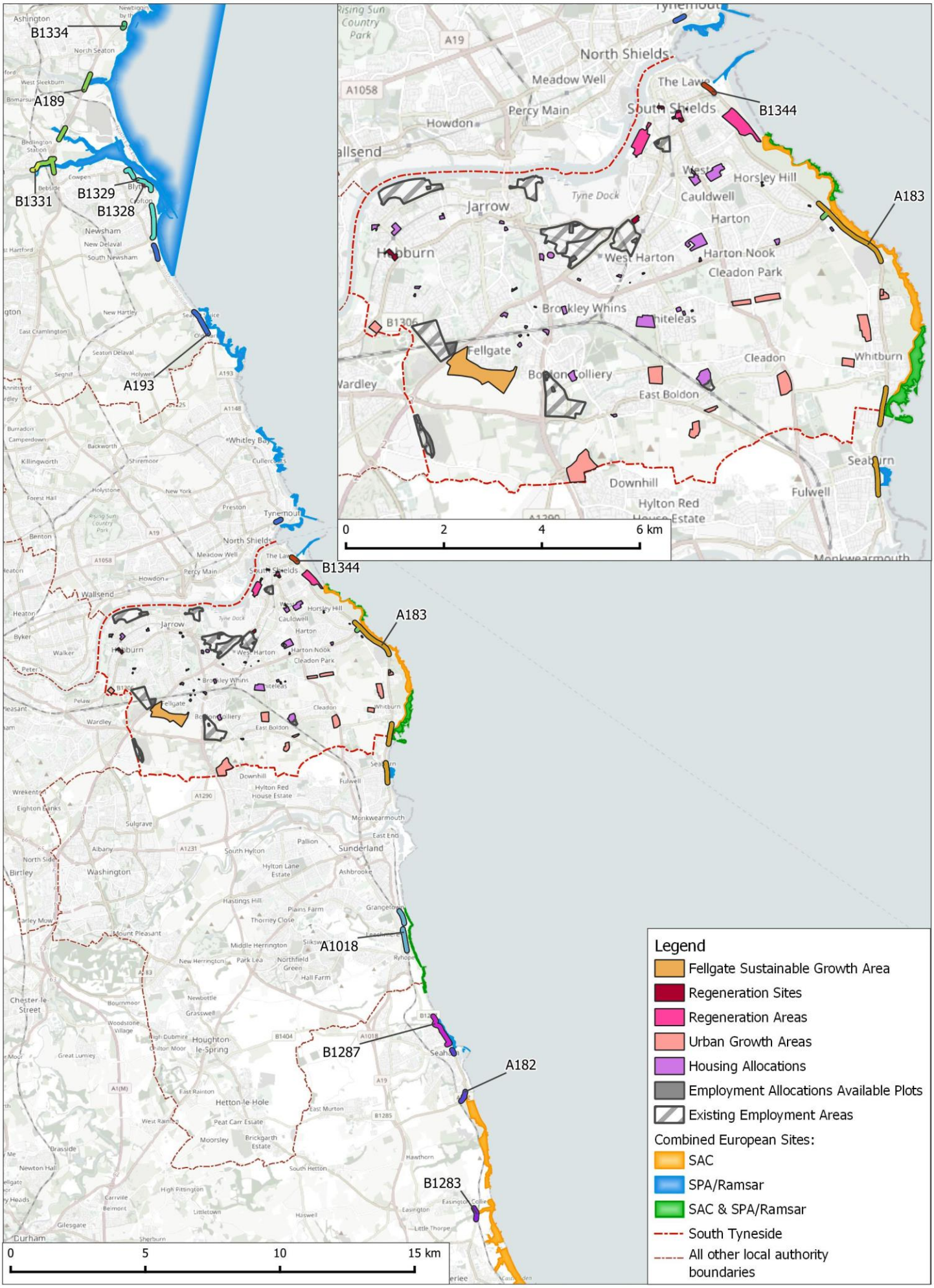
4.11 The A183 runs along the entire eastern seaboard of the district from Sunderland to South Shields. It is, therefore, a major road anticipated to carry considerable amounts of traffic not only from South Tyneside but also neighbouring local authorities.

4.12 Consequently, it lies in relatively close proximity to the Northumbria Coast SPA/Ramsar and Durham Coast SAC although these only occur within 200m of the road at three discrete locations (see Map 3) as follows:

- An approximately 1.7km stretch near Souter that lies close to the Durham Coast SAC only;
- A 500m stretch south of Whitburn that lies close to the Durham Coast SAC and the Northumbria Coast SPA/Ramsar where both sites overlap; and
- An approximately 350m stretch south of Seaburn that lies close to a discrete component of the Northumbria Coast SPA/Ramsar

4.13 Given this complex relationship and the range of designated features, each European site is taken in turn below although the Ramsar and SPA are considered together given the common features they share.

Map 3: A and B roads within 200m of the European Sites.



Northumbria Coast SPA/Ramsar site

4.15 Together, these European sites extend from the Tees to the Tweed estuaries and support a relatively restricted range of coastal habitats, primarily rocky shores with bounder and cobble beaches. Three artificial piers or breakwaters are also included along with a sandy beach. In turn, these support important wintering populations of purple sandpiper and turnstone populations as well as a breeding colony of little tern. The latter lies far distant from any potentially affect roads and this element can be removed from further scrutiny.

4.16 Purple sandpiper and turnstone make use of the site for roosting, loafing and foraging. Roosts and loafing areas, as indicated in the review of the A1344 above are highly unlikely to be affected by air pollution and so can also be ruled out of any further scrutiny. However, the rocky shores provide vital foraging areas and could be vulnerable to air pollution. Whilst direct, toxic effects from NOx can be considered unlikely, eutrophication from the nitrogen, acid and ammonia deposition (collectively referred to subsequently in this HRA as nitrogen deposition) could encourage the growth of more ruderal species which could restrict access to the favoured habitats.

4.17 Such impacts are highly unlikely, however. This is because the habitats are intertidal and so subjected to daily flooding by seawater. Not only does this reduce the exposure to aerial deposition but the tides introduce regular flushing. Furthermore, the constant changes of salinity and exposure effectively prevent the growth of ruderal species and represent far more influential factors than nitrogen deposition from vehicles or other sources. Whilst typically nitrate-limited, the concentration of nitrogen and its compounds in coastal waters can be assumed to be far greater than that which could be introduced to the system via aerial deposition.

4.18 Consequently, measurable impacts on either the wintering bird populations or their supporting habitats can be removed from further scrutiny.

4.19 Therefore, adverse effects on the integrity of the SPA/Ramsar can be ruled out beyond reasonable scientific doubt in combination with other plans or projects.

Durham Coast SAC

4.20 In contrast to the SPA/Ramsar site, no such ameliorating factors apply to the maritime cliff habitats of the Durham Coast SAC. This supports a complex series of communities highly adapted to high exposure, drought, a fragile

substrate and salt spray. Together they represent an almost unique set of characteristics and the communities are of great ecological importance. Whilst the underpinning Durham Coast SSSI is meeting its objectives and in favourable or unfavourable recovering condition, the importance of the qualifying features requires a precautionary approach.

Background to more detailed assessment

4.21 Whilst reference to APIS shows that the habitat is not considered vulnerable to increased acid deposition (a possible reflection of the buffering provided by the magnesian limestone), and the lack of characteristic lichens and bryophytes suggest that vulnerability to the toxic effects of ammonia deposition is low, it remains vulnerable to eutrophication. However, no critical loads are provided for nitrogen deposition, perhaps a reflection of the complexity of the habitat. Consequently, more detailed traffic analysis is first required as described below.

4.22 Traffic flows are assessed by calculating AADT figures using established models. Should increases in traffic (alone and in-combination) be less than 1,000 AADT or 200 HDVs, the risk of a significant or adverse effect can be ruled out and no further assessment is necessary. Should flows exceed these values, more detailed air quality analysis is needed. Here, impacts are assessed by calculating the relative contribution of the plan or project in relation to the relevant critical level for NOx and the critical loads for the deposition of nitrogen acid and ammonia.

4.23 The critical level for NOx is fixed and is expressed as a concentration: 30µg/m3. It is a precautionary threshold below which there is confidence that harmful effects on vegetation communities will not arise, and further assessment may not be necessary. Although APIS provides evidence that current background levels of NOx fall well below the threshold, it remains best practice to explore rates of nitrogen, acid and ammonia deposition.

4.24 The critical loads for nitrogen deposition vary and are specific to each qualifying feature. These are presented as a range of values (expressed as a rate, e.g. 10kg N/ha/yr - 20kg N/ha/yr) and typically, as a precautionary approach, only the lowest value is used (unless there are compelling reasons to do otherwise) as this will emphasise any negative outcomes.

4.25 Acid deposition is also assessed via critical loads though measured in keq/ha/yr. As it shares a direct, linear relationship with nitrogen deposition, acidity is not always assessed as its impact can be assumed. In contrast, the deposition of ammonia is assessed by a critical level, typically 3µgNH3/m3

though the presence of bryophytes and/or lichens can reduce this to 1µgNH3/m3.

4.26 Where background values prior to development lie below the critical load, significant or adverse effects can be ruled out for any increases in pollution brought about by a new plan or project provided that they do not exceed these thresholds.

4.27 In circumstances where background values already exceed the critical loads (which is typically the case across much of England) or where the critical loads are not specified, any additional inputs would further increase the risk that harmful effects could arise. However, it is important to recognise that the thresholds do not represent values where harm will necessarily occur.

4.28 Accordingly, the guidance specifies that should changes in NOx or nitrogen, acid or ammonia deposition increase by less than 1% of the critical level or the lower critical load, significant or adverse effects can still be ruled out. In contrast, should the 1% threshold be exceeded, a significant or adverse effect cannot be ruled out. Indeed, this emphasises that assessment is not about establishing a simple mathematical relationship. Account must be taken of the type of habitats (some are more resilient than others) and the distribution of the designated features, as not all will be distributed evenly across sites, and other factors may be at play.

4.29 Importantly, to satisfy the requirements of the Wealden decision, the traffic and air quality assessments must include the effects of the Plan in combination with other plans or projects that could affect the same European sites.

Assessment of Durham Coast SAC

4.30 Given that there is no contemporary assessment of traffic flows or air quality that reflect growth proposed in the emerging Plan, this further more detailed analysis cannot take place.

4.31 Consequently, at this stage in plan making, adverse effect on the integrity cannot be ruled out (in combination with other plans or projects) and further evidence is necessary to inform the next iteration of the HRA at the Regulation 19 stage.

5. Appropriate assessment topic: Hydrological impacts

5.1 Screening identified likely significant effects for the following policies alone for the Durham Coast SAC and the Northumbria Coast SPA/Ramsar in relation Hydrological impacts. The Policies either establish the overall level of growth or are allocations that will involve the potential for increased water use, increased levels of water in the treatment system/foul water system or other hydrological risks to sites:

- Policy SP2: Strategy for Sustainable Development to meet identified needs;
- Policy SP4: Housing Allocations in the Main Urban Area;
- Policy SP5: Urban and Village Sustainable Growth Areas;
- Policy SP6: Fellgate Sustainable Growth Area;
- Policy SP7: South Shields Riverside Regeneration Area;
- Policy SP8: Tyne Dock Estate Regeneration Site;
- Policy SP9: South Shields Town Centre College Regeneration Site;
- Policy SP10: Salem Street Housing-led Regeneration Site;
- Policy SP11: Queen Street Regeneration Site;
- Policy SP12: Hebburn New Town Regeneration site;
- Policy SP13: Regeneration Improvement Areas;
- Policy SP14: Employment Land for General Economic Development;
- Policy SP15: Wardley Colliery;
- Policy SP16: Provision of Land for Port and River-Related Development;
- SP18: Housing Supply and Delivery;
- Policy SP19: Strategic Economic Development.

Introduction

5.2 Run-off, outflow from sewage treatments and overflow from septic tanks can result in increased nutrient loads and contamination of water courses. This can have consequences for European sites which contain wetland or aquatic features, as the pollution will affect the ability of the site to support the given interest.

5.3 Furthermore, abstraction and land management can influence water flow and quantity, resulting in reduced water availability at certain periods or changes in the flow. This can exacerbate issues relating to water quality.

5.4 These impact pathways can be specific to particular parts of European sites or particular development locations, and are also relevant to the overall quantum of development.

Water supply

5.5 It is the role of the Environment Agency to make sure that abstraction is sustainable and does not damage the environment. Water abstraction is managed through a licensing system originally introduced by the Water Resources Act 1963.

5.6 The Environment Agency is the competent authority for the Water Framework Directive and it oversees the publication of River Basin Management Plans which are a requirement of the Directive. These plans set out how the management of water bodies will be undertaken, the roles of relevant bodies and the steps undertaken to ensure environmental targets are met.

5.7 The first River Basin Management Plans were produced in 2009 and then updated in 2015. In the more recent second cycle river basin management plans the Environment Agency has committed to ensure abstraction licensing strategies and actions fully incorporate all environmental objectives and align with River Basin Management Plans. The Agency will assess all licence applications and only issue licences that adequately protect and improve the environment. They will only grant replacement licences where the abstraction is environmentally sustainable and abstractors can demonstrate they have a continued need for the water, and that they will use it efficiently. In addition, for existing licences, the Agency will prioritise actions to protect and improve Natura 2000 sites and address the most seriously damaging abstractions during this plan period. All abstractors in surface water and groundwater bodies where serious damage is occurring, or could occur without action, should expect that their licences will be constrained over the next 6 years.

5.8 The Northumbria Water Resources Management Plan[22] predicts demand for water and issues around supply. The plan allows for a 23% population increase over 40 years, deriving forecasts to cover the period from 2020 through to 2060. The Plan identifies that there is an efficient, sustainable

[22] https://www.nwg.co.uk/responsibility/environment/wrmp/current-wrmp-2015-2020/

secure supply of water over the given period. The South Tyneside Infrastructure Delivery Plan[23] confirms there are no water supply issues.

5.9 Natural England's site improvement plan[24] for the Durham Coast SAC does not identify any issues relating to water supply. The supplementary conservation objectives for the Durham Coast SAC set a target relating to a site, unit and/or catchment level, to restore natural hydrological processes to provide the conditions necessary to sustain the H1230 (the vegetated sea-cliffs) feature within the site. Supporting text describes how defining and maintaining the appropriate hydrological regime is a key step in moving towards achieving the conservation objectives for this site and sustaining this feature. Changes in source, depth, duration, frequency, magnitude and timing of water supply can have significant implications for the assemblage of characteristic plants and animals present. It goes on to identify that further site-specific investigations may be required to fully inform conservation measures and/or the likelihood of impacts. There are a number of small wetlands within the SAC, but no detailed work has been done on their hydrology and so the water supply mechanisms are not known. Given this uncertainty, Natural England have set a restore target because it is likely that some wetlands have been affected by local agricultural drainage.

5.10 The site improvement plan for the Northumbria Coast SPA[25] does not identify water supply as a current issue or threat for the SPA. The supplementary conservation advice does not set a target relating to water supply for the site.

Water quality

5.11 Wastewater or sewage is very damaging to water bodies as it can contain large amounts of nutrients (such as phosphorus and nitrates), ammonia, bacteria, harmful chemicals and other damaging substances. Issues arise where sewage treatment technology to remove enough of the phosphorus and harmful chemicals doesn't exist, where leakages occur from privately owned septic tanks and, in wet weather, storm overflows can discharge untreated sewage. Increases in housing increase pressure on the sewage network and the volume of wastewater.

[23] Available on the S. Tyneside Council website, see para 6.31
[24] See relevant page on Natural England website
[25] See relevant page on Natural England website

5.12 River Basin Management Plans provide the framework for protecting and enhancing the water environment. The relevant plan for Northumbria[26] sets out statutory objectives for protected areas and a programme of measures to achieve those objectives. The plan (and supporting information) identifies the Northumbria Coast SPA and the Durham Coast SAC as both meeting environmental objectives in relation to water issues.

5.13 Natural England's site improvement plan for the Durham Coast SAC identifies fertilizer use and run-off from agricultural land as a current threat, but otherwise highlights no issues relating to water quality. In general, the key factor influencing the vegetation communities of maritime cliffs will be exposure to the sea. Run-off and flushes near the top of the cliffs or on the cliff-faces will create small patches of wetland vegetation and these are potentially vulnerable to pollution, however these will be influenced by local land management practices, agricultural input and run-off. The only way for local development to have an impact on the cliff-vegetation would be direct run-off or discharge into groundwater very local to the cliffs. The sewage treatment works for South Tyneside are at Howdon and Hendon and these are far removed from the cliffs and there is therefore no need to consider headroom or capacity for these in relation to the Durham Coast SAC.

5.14 The supplementary conservation advice for the Durham Coast SAC states that "*some [vegetation] communities, particularly those in wetlands/flushes, have suffered nutrient enrichment from fertiliser run-off from adjacent arable farmland. Some arable areas along the cliff-top have been reverted to low-input grassland, but some remain.*"

5.15 The advice does set a target for water quality, such that, where the feature is dependent on surface water and/or groundwater, to restore water quality and quantity to a standard which provides the necessary conditions to support the H1230 feature. The supporting notes indicate that the need to restore is because vegetation change in some wetlands suggest that they are suffering from nutrient enrichment, and run-off is likely to be a cause.

5.16 The relevant site improvement plan that covers the Northumbria Coast SPA highlights water pollution as a current pressure but not for the Northumbria Coast SPA, but rather the other SPA sites nearby that are covered within the

[26] https://www.gov.uk/government/publications/northumbria-river-basin-district-river-basin-management-plan

same plan (namely Lindisfarne SPA, Berwickshire & North Northumberland Coast SAC and the Tweed SAC).

5.17 The supplementary conservation objectives for the Northumbria Coast SPA set various targets relating to water quality. These include maintaining current levels of turbidity, nutrients and dissolved oxygen and reducing the levels of contaminants (tributyl tin). The two wintering bird species that are qualifying features – Turnstone and Purple Sandpiper – tend to feed in areas of exposed, open coast where water quality from local discharge poses much less risk.

5.18 Natural England (NE) has previously advised 32 LPAs across the country that, where protected sites are in unfavourable condition due to excess nutrients, development should only go ahead if it will not cause additional pollution to sites. In March 2022, Natural England advised a further 42 Local Planning Authorities that their areas were covered by this advice. This advice means that new residential development in the relevant areas must achieve 'nutrient neutrality' and the issue has been a high profile one.

5.19 South Tyneside is not one of the local authorities that is included in the advice from Natural England and neither the Durham Coast SAC or Northumbria Coast SPA have been identified as sites that are in unfavourable condition due to excessive nutrients which require a Habitats Regulations Assessment (HRA) by Natural England.

Implications for the Plan

5.20 Available information indicates that agricultural run-off and agricultural drainage is a current cause for concern relating to the Durham Coast SAC. There are a number of small wetlands within the SAC that are fed from seepages and run-off and therefore agricultural land management around the cliffs could affect water quality and quantity. Given the distribution of development in the Plan, at this stage we identify that housing growth and other development will not lead to any further deterioration in water quality or supply on the Durham Coast SAC. We suggest further checks with the Environment Agency and Natural England, prior to finalising the Regulation 19 version of the plan and further assessment may be required at the Regulation 19 stage. Water quality is an increasingly high priority issue and new guidance and information may become available.

5.21 For the Northumbria Coast SPA/Ramsar checks should also be made with the relevant statutory bodies, but it would seem that water availability and

water quality in relation to impacts from development have not been identified as a cause for concern and, with further checks in place, it should be possible to rule out adverse effects on integrity, alone or in-combination from hydrological effects on the Northumbria Coast SPA/Ramsar.

6. Appropriate assessment topic: Recreation/Disturbance

6.1 The initial screening identified the potential for likely significant effects in respect to recreation for the following policies alone:

- Policy SP2: Strategy for Sustainable Development to meet identified needs;
- Policy SP4: Housing Allocations in the Main Urban Area;
- Policy SP5: Urban and Village Sustainable Growth Areas;
- Policy SP6: Fellgate Sustainable Growth Area;
- Policy SP7: South Shields Riverside Regeneration Area;
- SP18: Housing Supply and Delivery.

6.2 These are policies which set strategic growth and involve multiple allocations or set overall levels of housing.

6.3 The following policies relate to specific allocations or growth at specific locations and the potential for likely significant effects were identified in-combination:

- Policy SP8: Tyne Dock Estate Regeneration Site;
- Policy SP9: South Shields Town Centre College Regeneration Site;
- Policy SP10: Salem Street Housing-led Regeneration Site;
- Policy SP11: Queen Street Regeneration Site;
- Policy SP12: Hebburn New Town Regeneration site;
- Policy SP13: Regeneration Improvement Areas;
- Policy SP16: Provision of Land for Port and River-Related Development.

6.4 In addition, Policy 34 (Internationally, Nationally and Locally Important Sites) is screened in as it includes specific reference to the need for mitigation for recreation impacts associated with proposals within 7.2km of the coastal European sites. Following *People Over Wind* this cannot be taken into account in the screening and must be screened in for further consideration as part of any appropriate assessment.

Impacts of recreation and the European site interest

Recreation and disturbance to birds

6.5 The Northumbria Coast SPA qualifies for two species of wintering waterbirds (as well as the terns), Turnstone and Purple Sandpiper.

6.6 Disturbance to wintering and passage waterfowl can result in:

- A reduction in the time spent feeding due to repeated flushing/increased vigilance (Bright et al., 2003; Fitzpatrick & Bouchez, 1998; Stillman & Goss-Custard, 2002; Thomas et al., 2003; Yasué, 2005)
- Increased energetic costs (Nolet et al., 2002; Stock & Hofeditz, 1997)
- Avoidance of areas of otherwise suitable habitat, potentially using poorer quality feeding/roosting sites instead (N. H. Burton et al., 2002; N. H. K. Burton et al., 2002; Cryer et al., 1987; Gill, 1996)
- Increased stress (Regel & Putz, 1997; Thiel et al., 2011; Walker et al., 2006; Weimerskirch et al., 2002)

6.7 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. Disturbance can result from a range of different activities or events taking place on or around the shore. Activities on the intertidal or the water are more likely to result in a behavioural response from birds present, as are those involving dogs, particularly dogs off-lead (e.g. Liley, Stillman, et al., 2010; Liley & Fearnley, 2012). In the work across North-west estuary sites undertaken by Liley *et al.* (2017), dog walking was the cause of 77% of major flight events[27] observed and 89% of the birds flushed. At roost sites, the large number of birds present means that single recreation events can affect a large number of birds.

6.8 Both Turnstone and Purple Sandpiper are associated with rocky habitats and also built-structures such as stone piers (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. However, 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. The trends appear to differ in different parts of the SPA and there is evidence that the less disturbed, more northern parts have seen some recovery (Percival et al., 2017). A recent study on Turnstones on the Northumbria Coast (Whittingham et al., 2019) found that Turnstone density was higher, and the population declines less, in areas on or close to offshore refuges than on mainland sites subject to greater levels

[27] A major flight event was defined as one where the birds took flight and were displaced more than 50m.

of human disturbance. The inference was that the refuges, which were off-shore islands with little or no public access, may increase habitat quality by providing undisturbed roost sites and to an extent buffer population declines. The study covered 19 sites along the Northumbria Coast, 2 of which were undisturbed areas (offshore refuges) and 17 were mainland sites subject to high levels of disturbance.

Recreation and impacts to the SAC

6.9 There are a range of ways recreation can impact vegetated sea cliffs, a qualifying feature of the SAC. The issues are however likely to be localised due to the steep and inaccessible nature of the cliffs. The botanical interest is on the more unstable and eroding parts of the cliff and these are dangerous to access. As such some of the key areas are likely to be protected from heavy wear and recreational pressure, with most users following paths just inland from the cliffs where the ground is stabilised and safe. The cliffs are dynamic and – at least for those areas where wave action can reach the base – the areas that are important will change over time. The cliff edge will also retreat inland. As such, the issues are likely to also change and areas that are apparently robust at the moment may become more vulnerable over time.

6.10 Dog fouling is a widely recognised issue in low-nutrient semi-natural systems (Groome et al., 2018; Taylor et al., 2005). The resulting increase in nitrogen and phosphorus changes vegetation communities, encouraging bulky competitive species at the expense of less vigorous species adapted to low-nutrient situations. A change from typical species to rank species-poor grassland communities is a common sight along and on the margins of paths and tracks and around many car parks. Recent vegetation surveys (Haycock and Jay Associates Ltd., 2021) have however not identified dog fouling as a significant concern.

6.11 Trampling can directly damage plants, lead to loss of vegetation and/or a change in plant species composition and cause compaction or poaching of the substrate, with implications for plant species composition. The level of trampling that will cause damage depends on a variety of factors including soil type and moisture content, aspect and slope, season, microclimate, behaviour of walkers etc (e.g. walking up or down the slope) and the vegetation type (see Liley *et al.* 2010 for a review). Due to this range of factors, it is difficult to predict thresholds at which significant vegetation change will occur.

6.12 In suppressing plant growth and creating bare ground, trampling can also result in conditions suitable for some scarce plants and invertebrates. There is therefore a difficult balance to achieve between sufficient trampling to create and maintain bare ground, and excessive wear that continually disturbs the substrate and damages or destroys any colonising species.

6.13 Soil compaction and erosion issues are not only related to footfall (see Liddle, 1997 for review). Bicycles can damage soils and vegetation more than foot passage for example (Martin et al., 2018). The illicit use of vehicles, such as 4x4s and quad bikes is likely to be especially damaging.

6.14 Trampling has been identified as a localised issue in recent vegetation surveys (Haycock and Jay Associates Ltd., 2021), with the suggestion of the need for steps for example at Whitburn Bents and Whitburn Steel to address trampling pressure.

6.15 Fire incidence can be linked to barbeques, camp-fires and arson, and fire incidence on semi-natural habitats is linked to the amount of housing nearby, with areas with more development tending to have more fires (Kirby & Tantram, 1999).

6.16 While fires are unlikely to spread far or cause catastrophic damage along the cliffs, even small patches of burnt vegetation can be damaging, for example from disposable barbeques rested on the ground. With climate change, the risk of more extreme weather and prolonged dry spells, fires are likely to be of more concern and risk.

6.17 The spread of non-native species can be associated with recreation use, and studies have shown people can be vectors for seeds over many kilometres (Wichmann et al., 2009). Non-native species can also be spread by dumping of garden waste (which can occur in proximity to housing) and even from deliberate planting.

Table 2: Ways in which recreation impacts could impact on qualifying features (relevant to the Northumbria Coast SPA/Ramsar and the Durham Coast SAC) potentially vulnerable to recreational pressure. Relevant months describe when the impact can occur. In source/evidence column "SIP" refers to relevant site improvement plan produced by Natural England. Only those species relevant to South Tyneside included.

Impact	Interest feature	Relevant months	Source/evidence	Notes
Contamination	H1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts	All year	SIP; Lowen *et al.* (2008).	Excessive eutrophication leading to coarse species locally outcompeting characteristic species. Haycock study suggests dog fouling not a concern but dumping of garden waste a significant impact.
Trampling	H1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts	All year	SIP; Lowen *et al.* (2008).	Damage from footfall and also motorbikes/illegal vehicles. Some cliff areas will be inaccessible.
Invasive species	H1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts	All year	SIP, Thuiller *et al.* (2005); Wichmann *et al.* (2009) Haycock and Jay Associates (2021)	There are already a number of garden plants that have become established. Risks from deliberate introductions and accidental spread on clothing/footwear/pets. Haycock study identifies range of species and locations where there are concerns.
Access infrastructure	H1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts	All year	Whitehouse (2007); Lowen *et al.* (2008).	Risk of inappropriate interventions such as path surfacing, stabilising substrate, drainage etc. where there is a demand for access.
Difficulty in achieving conservation management	H1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts	All year	Oates (1999)	The ability to achieve relevant conservation management may be compromised in areas with high access. This can be a particular issue around cliffs on an eroding coast where a limited strip of land is available.
Fire	H1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts	All year, particularly growing season (around April- August)	Lowen *et al.* (2008).	Localised damage to vegetation and soil, e.g. from use of disposable BBQs.
Disturbance to birds	Purple Sandpiper and Turnstone	September - March	Whittingham *et al.* (2019). Many general refs also, e.g. Ross et al. (2012); Stillman et al. (2012). Issue is cited in SIP but not for Purple Sandpiper.	Impacts will vary according to weather, prey availability and prey distribution. Activities on the intertidal or around roost sites most relevant.

Recreational use of the coast and visitor survey data

6.18 Visitor surveys, covering multiple parts of the Northumbria Coast include:

- Surveys between November 2014 and April 2015, to support the HRA work (Bluegrass, 2015);
- Further surveys between January – March 2016, involving 633 interviews (Bluegrass, 2016);
- Surveys in 2019-20 involving 1,557 interviews over the winter and spring periods (Panter & Caals, Z., 2022).

6.19 The main activity is dog walking (66% of interviewees in 2015; 65% in 2016, 44% (spring 2019-20) and 53% (winter in 2019-20). Many (63% in 2016, 70% in 19-20) travel by car and visits are often short (for example 76% spent less than an hour on the beach/shoreline in 2016). Interviewees often visited regularly (e.g. 45% of dog walkers visited most days in 2016). It is clear that the coastline therefore provides an important greenspace, providing for the recreation needs of many local residents. Visitors are typically local, for example 75% coming from within 6 miles in the 2016 survey. The results from the 2019-20 survey suggest a slightly different area, with 75% of interviewees originating within 7.2km. The 75th percentile has become a standard metric for defining a zone of influence for recreation (see Liley, et al., 2021 for review and best practice), as it represents the area from which most visitor originate. As the most recent visitor data (and representing a large sample size) this is the best available evidence and is used in the mitigation strategy to define the zone of influence.

6.20 There is little information on overall visitor numbers. Exeter University's ORVaL tool (Day & Smith, 2018), which is based on models developed at a national scale rather than actual data collected in the field, estimates that there are around 8,319,908 visits to green spaces per year in South Tyneside. The models estimate around 2 million of these visits are to the coast.

Conservation objectives

6.21 The supplementary conservation advice for the Northumbria Coast SPA[28] identifies that human disturbance may be impacting on both wader species and includes targets relating to disturbance caused by human activity for both Turnstone and Purple Sandpiper. These targets restrict the frequency, duration and/or intensity of disturbance affecting roosting, foraging, feeding moulting and/or loafing birds

[28] See relevant page on Natural England website

so that they are not significantly disturbed. The advice also notes that further investigation is required.

6.22 The supplementary conservation advice for the Durham Coast SAC[29] identifies recreation issues in relation to attributes on the structure and function (vegetation: undesirable species). The target relates to restoration to acceptable levels of undesirable species and the notes highlight that issues such as eutrophication and disturbance (e.g. from fire) are issues.

Implications for the Plan

6.23 There are clearly risks from development to both the Durham Coast SAC and the Northumbria Coast SPA/Ramsar. These risks have long been recognised and Natural England has advised on the need for mitigation to prevent adverse effects on the Durham Coast SAC and Northumbria Coast SPA/Ramsar site from recreation impacts.

6.24 A mitigation strategy (Hoskin et al., 2018) was adopted as an SPD in 2018. This set out a series of costed mitigation measures to address recreation impacts and the overall costs were used to set a per dwelling tariff. The mitigation strategy was based on a zone of 6km.

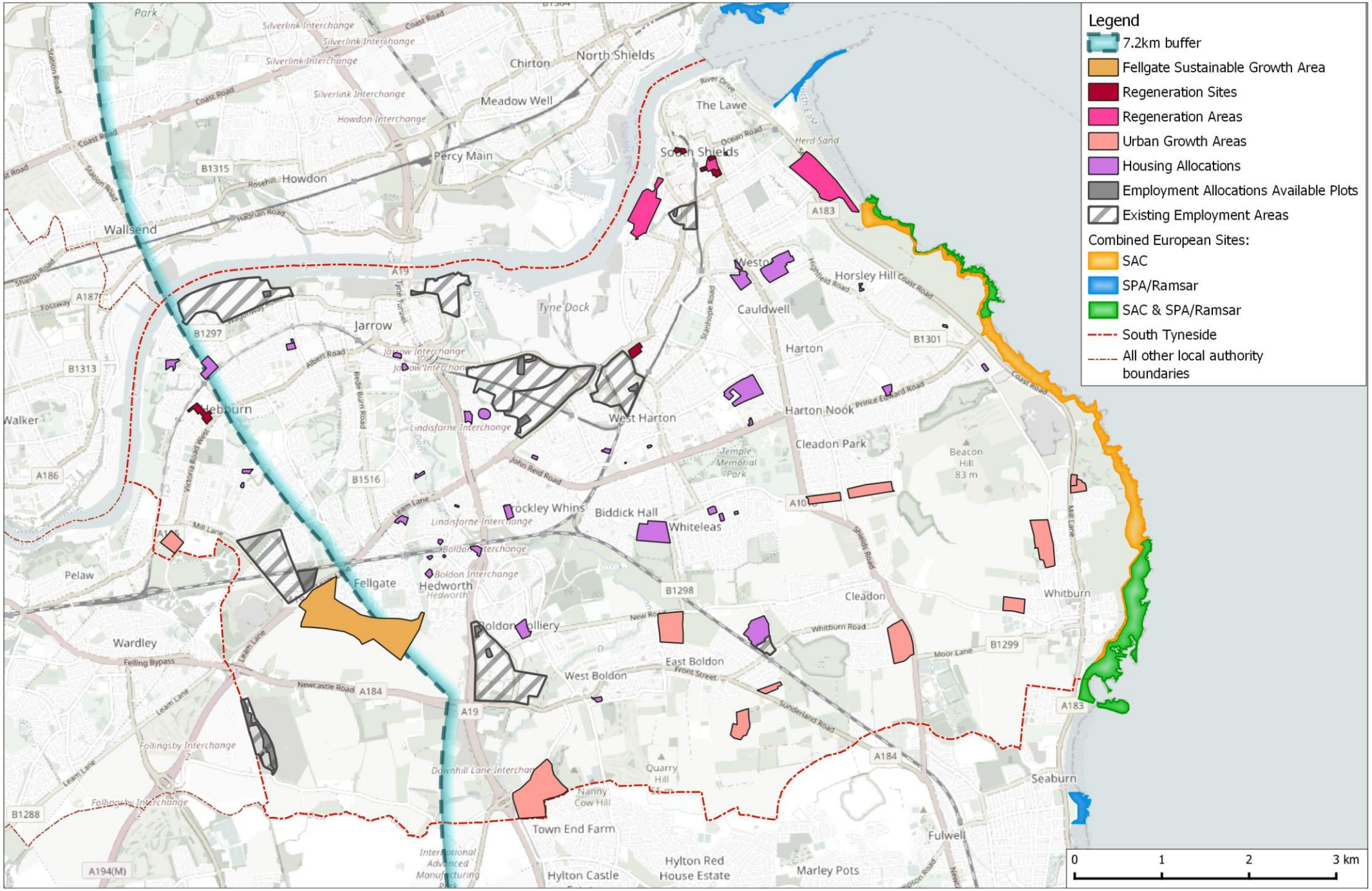
6.25 Policy 34 (Internationally, Nationally and Locally Important Sites) in the Plan identifies that all residential developments within 7.2 km of the Durham Coast Special Area of Conservation and Northumbria Coast Special Protection Area and Ramsar site are considered to have a likely significant effect on the integrity of the site, through increased recreational use of the coastline. All new residential developments (Use Class C3 and C4, Change of Use to C3/C4 and Prior Notifications) are therefore be expected to contribute towards strategic mitigation measures according to the Mitigation Strategy or successor document, unless suitable alternative mitigation measures can be agreed with the Council in consultation with relevant statutory consultees.

6.26 The 7.2km zone and allocations within the Plan are shown in Map 4. Appendix 3 summarises the allocations in the Plan and identifies that the combined indicative capacity is around 4829 dwellings within the 7.2km zone of influence. The majority of these are set back well back from the coast, which means use is likely to be focussed around visitors arriving by car.

[29] See relevant page on Natural England website

6.27 The strategy provides a positive approach to resolving impacts from recreation and has been running for some years. Alongside the adopted version of the Plan it will be necessary to have an updated strategy that reflects the latest predictions of growth and the updated zone of influence. As long as this is in place, it is anticipated that it will provide the necessary certainty that mitigation can be secured and is effective, reliable, timely, guaranteed to be delivered and as long-term as needed to achieve the objectives. This will ensure that adverse effects on integrity can be ruled out for the plan alone or in-combination.

Map 4: European Sites and the 7.2km ZoI in relation to Local Plan allocations.



7. Conclusions

7.1 This HRA report has been produced to accompany the South Tyneside Local Plan ('Regulation 18' stage). This HRA report will be updated alongside the next iteration of the Plan and as such in this report we highlight where further information or evidence will be necessary to inform the next iteration of the HRA as the plan is finalised.

7.2 The initial screening has highlighted likely significant effects alone in relation to: air quality (Durham Coast SAC, Northumbria Coast SPA/Ramsar), hydrological issues (Durham Coast SAC, Northumbria Coast SPA/Ramsar) and recreation (Durham Coast SAC, Northumbria Coast SPA/Ramsar).

7.3 These topics are therefore ones where, at least at this stage in the Plan making, we anticipate that appropriate assessment will be necessary. In considering the scope of such assessment we identify the following key considerations:

Air quality

7.4 We have ruled out adverse effects on integrity from air quality, alone or in-combination for the Northumbria Coast SPA/Ramsar at this stage in the Plan making. At this stage we also identify risks and uncertainty with respect to the Durham Coast SAC. We have identified road sections that fall within 200m of the SAC. Given that there is no contemporary assessment of traffic flows or air quality that reflect growth proposed in the emerging Plan, more detailed analysis cannot take place.

7.5 Consequently, at this stage in plan making, adverse effect on the integrity cannot be ruled out (in combination with other plans or projects) and further evidence is necessary to inform the next iteration of the HRA at the Regulation 19 stage. Accordingly, the Plan cannot normally be adopted until such time as these issues have been resolved.

Hydrological issues

7.6 Available information indicates that agricultural run-off and drainage is a current cause for concern relating to the Durham Coast SAC. Given the distribution of development in the Plan, at this stage we identify that housing growth and other development will not lead to any further deterioration in water quality or supply on the Durham Coast SAC. We suggest further checks with the Environment Agency and Natural England, prior to finalising the Regulation 19 version of the

plan and further assessment may be required at the Regulation 19 stage. Water quality is an increasingly high priority issue and new guidance and information may become available.

7.7 For the Northumbria Coast SPA/Ramsar checks should also be made with the relevant statutory bodies but it would seem that water availability and water quality in relation to impacts from development have not been identified as a cause for concern.

Recreational pressure

7.8 The risks to the Northumbria Coast SPA/Ramsar and to the Durham Coast SAC from recreation have long been recognised and a mitigation strategy is in place. This strategy needs updating so that, at adoption, the strategy reflects the latest figures for housing growth and the 7.2km zone of influence identified in the most recent visitor surveys. This will ensure that, at submission, the HRA can demonstrate that adverse effects on integrity can be ruled out – alone and in-combination – for the growth proposed.

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Appendix 1: European Site Conservation Objectives

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.

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

In 2012, Natural England issued a set of generic European site Conservation Objectives, which should be applied to each interest feature of each European site. The 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.

In addition to the generic objectives, there is more detailed, supplementary site-specific information to underpin these generic objectives. This provides much more site-specific information, and this detail plays a fundamental role in informing HRA, and gives greater clarity to what might constitute an adverse effect on a site interest feature. Links in Appendix 2 provide access to both generic conservation objectives and the supplementary advice for each European site.

For SPAs the overarching objective is to:

> *'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.'*

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.

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.'*

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.

Appendix 2: Conservation Interest of European Sites

Links in the table cross-reference to the Natural England website and the relevant page with the site's conservation objectives. In the qualifying features column, for SPAs NB denotes non-breeding and B breeding features. For SACs, # denotes features for which the UK has a special responsibility. The descriptive text is adapted from Natural England's site improvement plan (and we have omitted descriptions for the Ramsar sites as in all cases the site overlaps with an SAC/SPA). For Ramsar sites, the qualifying features and description are drawn from the Ramsar spreadsheet on the JNCC website[30], and the link cross-references to the Ramsar site information page.

European site	Qualifying features	Description
Durham Coast SAC	H1230 Vegetated sea cliffs of the Atlantic and Baltic coasts	Durham Coast SAC 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.
Northumberland Marine SPA	A191 *Sterna sandvicensis*; Sandwich tern (Breeding) A192 *Sterna dougallii*; Roseate tern (Breeding) A193 *Sterna hirundo*; Common tern (Breeding)	Northumberland Marine SPA is located on the Northumberland coast between Blyth and Berwick-Upon-Tweed. The coastal parts of the site consist of sandy bays separated by rocky headlands backed by dunes or soft and

[30] http://archive.jncc.gov.uk/default.aspx?page=2392

European site	Qualifying features	Description
	A194 *Sterna paradisaea*; Arctic tern (Breeding) A195 *Sternula albifrons*; Little tern (Breeding) A199 *Uria aalge*; Common guillemot (Breeding) A204 *Fratercula arctica*; Atlantic puffin (Breeding) Seabird assemblage	hard cliffs. There are extensive areas of inter-tidal rocky reef, long sandy beaches at Beadnell, Embleton and Druridge Bay and extensive sand and mud flats at Budle Bay and Fenham Flats at Lindisfarne. Discrete areas of intertidal mudflats and estuarine channels are also included where the site extends into the Aln, Coquet, Wansbeck and Blyth estuaries. The open coast habitats extend into the subtidal zone, where large shallow inlets and bays and extensive rocky reefs are present. Further offshore, soft sediments predominate.
Northumbria Coast Ramsar	Little tern, *Sternula albifrons* - Breeding Purple sandpiper, *Calidris maritima* - Wintering Turnstone, *Arenaria interpres* - Wintering	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.
Northumbria Coast SPA	A148 Calidris maritima; Purple sandpiper (Non-breeding) A169 Arenaria interpres; Ruddy turnstone (Non-breeding) A194 *Sterna paradisaea*; Arctic tern (Breeding) A195 Sternula albifrons; Little tern (Breeding)	The Northumbria Coast SPA includes much of the coastline between the Tweed and Tees Estuaries in north-east England. The site 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. In summer, the site supports important numbers of breeding Little Tern *Sternula albifrons*, whilst in winter the mixture of rocky and sandy shore supports large number of Turnstone *Arenaria interpres* and Purple Sandpiper *Calidris maritima*.

Appendix 3: Allocations for residential development and distances from the European sites

The table below lists all residential allocations within the Plan and gives the distances to the two relevant European sites. Orange shading represents sites within 400m of one of the European sites while blue shading indicates sites beyond 400m but within 7.2km of at least one of the European sites. 400m is used to highlight those in particular close proximity while 7.2km reflects the zone of influence for recreation, in line with the visitor survey work and the mitigation strategy. In total there is an indicative capacity of 4829 dwellings in the table for sites within 7.2km of the coast (55 different allocations).

Site ref	indicative capacity (no. of dwellings)	Distance to Northumbria Coast SPA/Ramsar (km)	Distance to Durham Coast SAC Dist (km)
H1	5	0.8	1.6
H2	79	1.6	1.4
H3	163	1.0	0.9
H4	272	2.3	2.1
H5	293	4.2	4.1
H6	22	3.7	3.6
H7	18	3.7	3.6
H8	44	1.3	1.2
H9	6	3.7	3.5
H10	15	4.0	3.9
H11	4	3.5	3.4
H12	25	0.7	0.6
H13	16	2.7	2.6
H14	12	0.5	0.2
H15	62	1.6	1.5
H16	6	0.4	0.4
H17	2	4.0	3.8
H18	8	6.2	6.0
H19	3	6.3	6.1
H20	10	6.4	6.2
H21	25	6.5	6.3
H22	33	6.3	6.2
H23	35	5.9	5.7
H24	36	4.9	5.0
H25	44	5.3	5.2
H26	15	5.1	5.5
H27	15	5.1	5.5
H28	10	5.8	5.8

Site ref	indicative capacity (no. of dwellings)	Distance to Northumbria Coast SPA/Ramsar (km)	Distance to Durham Coast SAC Dist (km)
H29	40	4.8	4.8
H30	6	4.7	4.6
H31	2	5.8	5.6
H32	100	7.0	7.6
H33	4	6.1	6.6
H34	46	7.4	8.0
H35	12	6.1	6.6
H36	12	7.3	7.5
H37	8	7.4	7.7
H38	45	6.1	5.9
H39	17	5.4	5.4
H40	212	3.6	3.6
GA1	90	2.6	2.4
GA2	156	2.1	1.9
GA3	115	8.4	8.6
GA4	263	4.2	4.2
GA5	120	3.7	3.8
GA6	63	3.4	3.4
GA7	400	5.7	5.9
GA9	259	0.9	0.4
GA10	250	2.6	2.4
GA11	75	2.6	2.4
GA12	30	2.6	2.4
GA13	41	2.6	2.4
RG1	69	3.0	2.9
RG2	18	1.2	2.2
RG3	20	1.1	2.1
RG4	136	7.3	7.8
RG5	4	0.9	1.6
RG6	15	0.9	1.8
RG7	40	1.0	1.8
SP6	1200	6.9	6.7