



Initial report to inform the Habitats Regulations Assessment of the South Tyneside Publication Draft Local Plan (Regulation 19)

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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 (SPAs), Special Areas of Conservation (SACs) 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 Publication draft Local Plan (Regulation 19). The screening has highlighted likely significant effects from various policies within the Plan and in relation to:

- Recreation (Durham Coast SAC, Northumbria Coast SPA/Ramsar); and
- Hydrology (Durham Coast SAC, Northumbria Coast SPA/Ramsar).

These topics are therefore taken to appropriate assessment. Following appropriate assessment, it can be concluded that the South Tyneside Local Plan is in conformity with the Habitats Regulations, and at a plan level (and at this stage in the Local Plan), a conclusion of no adverse effects, alone or in-combination, on European site integrity can be drawn.

Given the distribution of development in the Plan, we can identify that housing growth and other development will not lead to any further deterioration in water quality or supply on the Durham Coast SAC. With no impacts alone, there is no need for in-combination assessment as there is no risk of cumulative effects. For the Northumbria Coast SPA/Ramsar water availability and water quality in relation to impacts from development are ruled out as a cause for concern.

Recreation impacts in the absence of mitigation are identified for the Durham Coast SAC and the Northumbria Coast SPA/Ramsar. Mitigation is delivered through a mitigation strategy which has been running in its current guise since 2018 and is secured in policy within the Plan. With an updated mitigation strategy in place and delivering the necessary mitigation it will be possible to conclude adverse effects on integrity from recreation can ruled out. This will need to be checked when the HRA is finalised, at the point of adoption and further iterations or revisions to the HRA may be necessary to accompany any further changes or modifications to the Plan.

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Acknowledgements

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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 19' stage, and is based on a version of the plan provided to Footprint Ecology in November 2023. 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 Local Plan proposes a strategy for the future development of South Tyneside Borough until 2040. 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.
- 1.5 A consultation on a Pre-Publication Draft Local Plan took place in 2019 (and was also accompanied by an HRA: Hoskin *et al.*, 2019). Following consultation and a review of Spatial Options, a new Draft Local Plan was produced in 2022. That draft was accompanied by an updated HRA report. Following consultation the revised plan (at Regulation 19 stage) is the subject of this HRA, which builds on and updates the previous work.

1.6 Background to the Local Plan and the evidence base that accompanies it can be found on the Council's website¹.

Habitats Regulations Assessment process

- 1.7 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 2019²) take account of the UKs departure from the EU.
- 1.8 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 Regulations³.

European sites

1.9 '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 protection⁴.

¹ <u>https://www.southtyneside.gov.uk/article/11432/Overview</u>

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. <u>https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site</u>

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 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.

- 1.10 The network 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.
- 1.11 The designations made under the European Directives still apply and the term, 'European site' remains in use. According to long-established Government policy⁵, European sites also comprise 'Wetlands of International Importance' (or Ramsar sites) although these do not form part of the national network.
- 1.12 The overarching objectives of the national network are 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.
- 1.13 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.

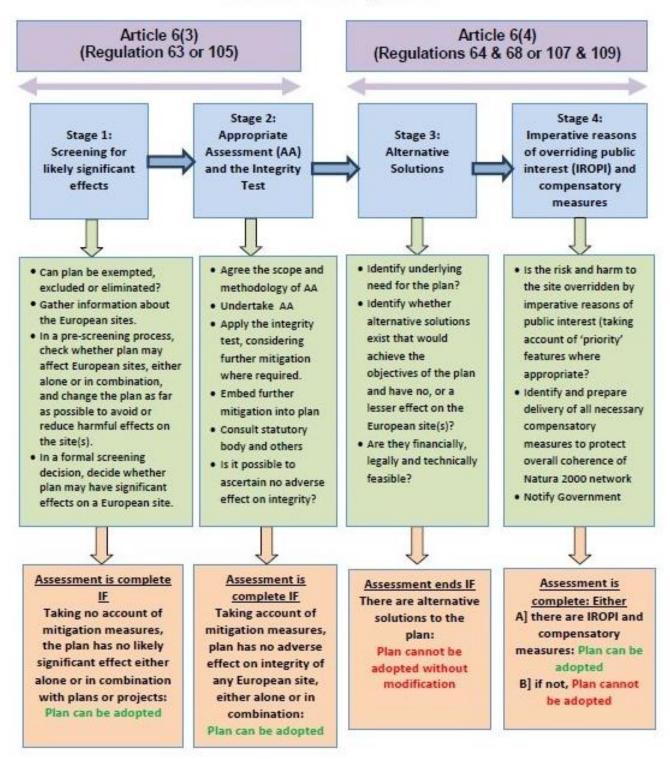
Role of the competent authority

1.14 Although this HRA has been prepared to help the Council discharge its duties under the Habitats Regulations, the Council is the competent authority, and it must decide whether to accept this report or otherwise. Further, it should be noted that this HRA has 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.

Process

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

⁵ 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.



Outline of the four-stage approach to the assessment of plans under the Habitats Regulations

> Extract from The Habitats Regulations Assessment Handbook, www.dtapublications.co.uk © DTA Publications Limited (October 2018) all rights reserved This work is registered with the UK Copyright Service

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

- 1.16 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.
- 1.17 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.
- 1.18 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.
- 1.19 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.
- 1.20 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.
- 1.21 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

- 1.22 This HRA follows principles of case law, both UK and EU. It also refers as appropriate to the Habitats Regulations Assessment Handbook (Tyldesley and Chapman, 2021), to which Footprint Ecology subscribes. We also follow relevant government guidance.
- 1.23 Drawing on the Handbook, other relevant guidance and case law, we clarify the following terms used in the flow chart (Figure 1):
- 1.24 In Stage 1, A '**likely significant effect'** following Waddenzee⁶, 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 Sweetman⁷, as '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 Wind⁸ 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'.

⁶ Waddenzee: European Courts C-127/02 Waddenzee 7th September 2004, reference for a preliminary ruling from the Raad van State.

⁷ Sweetman: European Court C – 258/11 Sweetman 11th April 2013, reference for a preliminary ruling from the Supreme Court of Ireland

⁸ Bagmoor Wind: UK courts Bagmoor Wind v The Scottish Ministers, Court of Session [2012] CSIH 93

- 1.25 Following the People Over Wind judgement⁹, when making screening decisions for the purposes of deciding whether an appropriate assessment is required, competent authorities cannot take into account any mitigation measures.
- 1.26 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 precautionary approach and means it is necessary to show the absence of harm.
- 1.27 Following Champion¹⁰ '**appropriate'** is not a technical term but simply indicates that the assessment needs to be appropriate to the task in hand.
- 1.28 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 classified¹¹. An alternative definition, after Sweetman¹², is 'the lasting preservation of the constitutive characteristics of the site'.
- 1.29 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 UK¹³. However, the judgement¹⁴ 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"*.
- 1.30 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 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

⁹ People Over Wind and Sweetman v Coillte Teoranta (323-17) [2018] PTSR 1668

¹⁰ *R* (on the application of Champion v North Norfolk District Council [2015] 1 WLR 3170 at para 41 ¹¹ Para 20 of the ODPM Circ. 06/2005

¹² *Sweetman v An Bord Pleanála* (C–258-11) [2014] PTSR 1092 at paragraph 39

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 v Oxford City Council [2011] EWHC 2699 Admin at paragraph 92

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.

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:
 - 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, tallherb 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 plan¹⁶ are:

¹⁶ See <u>http://publications.naturalengland.org.uk/publication/5113930540122112</u>

- 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 plan¹⁷ are:
 - Public access/disturbance;
 - Water pollution;
 - Invasive species;
 - Changes in species distributions;
 - Predation;
 - Coastal squeeze;
 - Direct impact from third party;
 - Transportation and service corridors;
 - Change in land management;

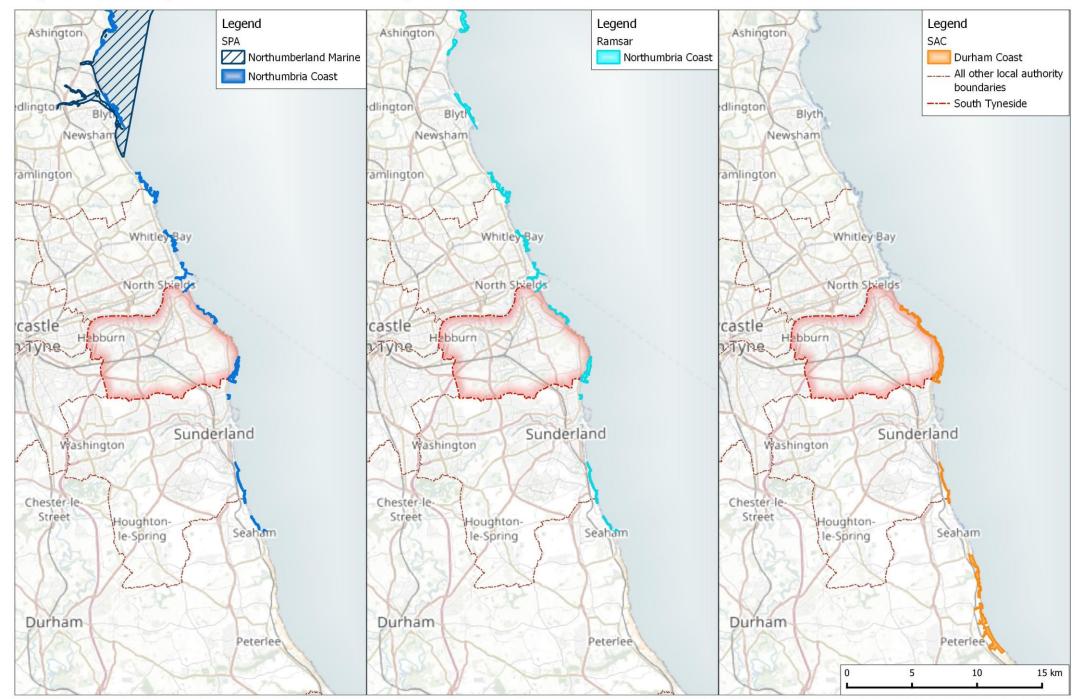
¹⁷ Which covers multiple different European sites, See <u>http://publications.naturalengland.org.uk/publication/5340976100933632</u>

- 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.



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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

- 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 sites¹⁸ 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 development so close to the European sites the options to prevent or reduce harm are more 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

¹⁸ E.g. the Thames Basin Heaths, the Dorset Heaths, the East Devon Pebblebed Heaths, Burnham Beeches

dumping 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 nutrient inputs and invasive species, for example.

Water (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.

Recreation

- 2.22 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.
- 2.23 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.
- 2.24 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.

- 2.25 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.
- 2.26 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.
- 2.27 Concerns about recreation impacts are long standing and the Council has a mitigation strategy in place to address the issues.

Air quality

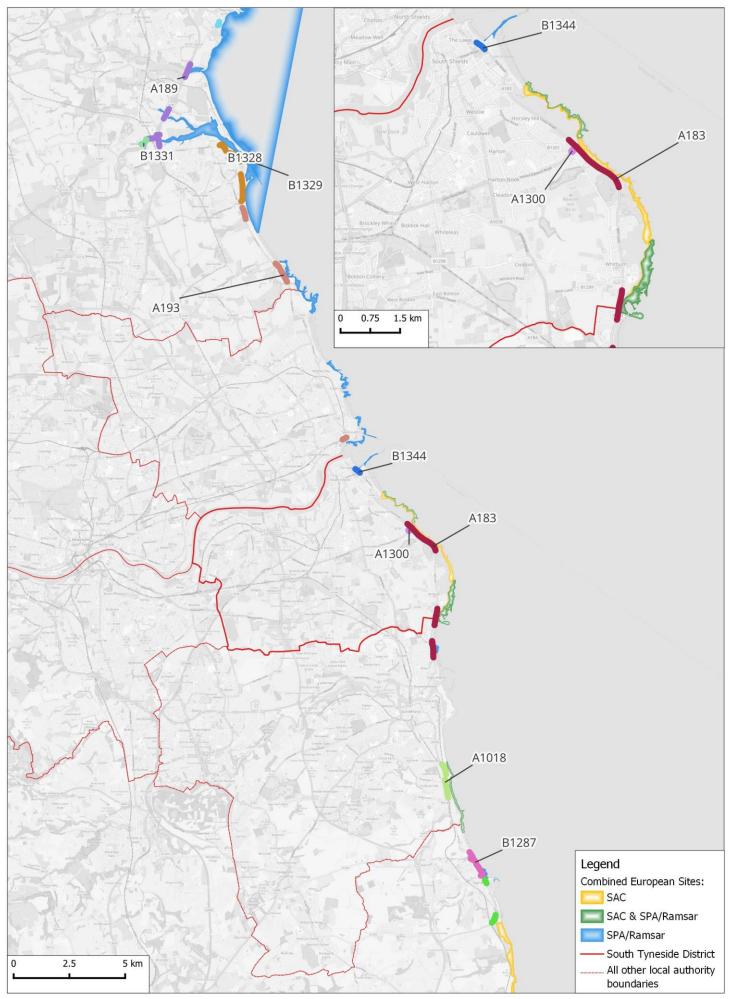
- 2.28 Development is typically associated with increased traffic and emissions which can increase the airborne concentration of nitrogen oxides (NO_x) and ammonia (NH₃), and the subsequent rate of nitrogen deposition from the atmosphere. This can lead to the nutrient enrichment and acidification of 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.
- 2.29 Levels of nitrogen deposition fall quickly in the first few metres from a 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. In accordance with guidance from Natural England (Natural England, 2018), it is only roads that are within 200m of a European site that are relevant for this HRA.

- 2.30 Both the Northumbria Coast SPA/Ramsar and the Durham Coast SAC have main roads within 200m of the coast in and around South Tyneside. The B1344 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 A183 runs along the entire eastern seaboard of the district from Sunderland to South Shields. 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 2) 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.
- 2.31 For deposition from traffic to trigger likely significant effects, the relevant road sections must be expected to experience an increase of traffic and the features present must be known to be sensitive to such effects.
- 2.32 A guideline threshold for traffic flows that is widely used to check whether more detailed assessment is required is 1000 Annual Average Daily Traffic flow (AADT). This figure does not relate to any intrinsic environmental effect and is just a useful trigger to indicate a need for further investigation (see Natural England, 2018; Holman *et al.*, 2019; CIEEM, 2021 for further background and context). Traffic flow modelling data were provided by Systra as part of traffic modelling work undertaken as evidence for the Local Plan. These data included information on the current flows as well as separate figures for the flows relating to committed development, development in the South Tyneside Local Plan and other future development including those in Sunderland, North Tyneside and Gateshead.
- 2.33 Systra provided AADT figures for three points along the coast road and all three estimates were relatively small, with the maximum being an increase in traffic flows of 314 AADT, as a result of the South Tyneside Local Plan, plus

all committed development and the future development in neighbouring authorities. This level of increase is too small to warrant further consideration and air quality does not need to be considered further in the HRA.

Map 2: A and B roads within 200m of European Sites.



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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. 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?

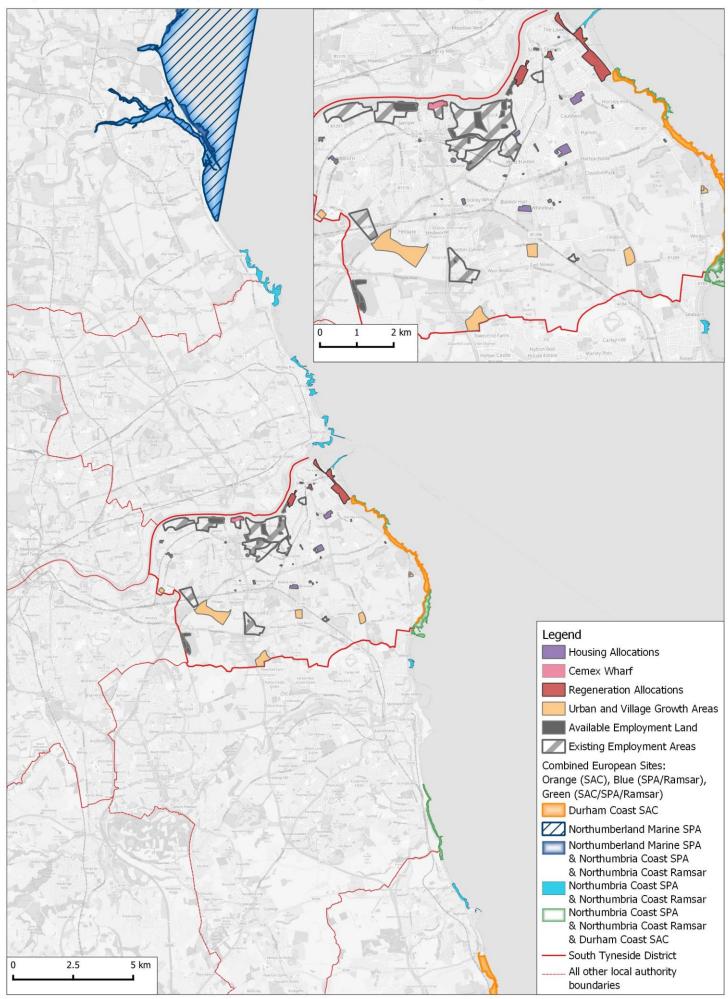
- 3.3 Where the screening identifies risks that cannot be avoided with simple clarifications, corrections or instructions for project level HRA, a more detailed assessment is undertaken to gather more information about the likely significant effects and give the necessary scrutiny to potential mitigation 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 Wind¹⁹;

¹⁹ People Over Wind: European Count Case C-323/17 People Over Wind & Peter Sweetman v Coillte Teoranta 12 April 2018

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 3 which helpsinform the screening. Table 2 (after the screening) summarises the distancesfrom each residential site/allocation to each relevant European site.

Map 3: Allocations and European Sites within 20km of district boundary



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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	Description	Initial LSE screening	Potential risks	Comments
Introduction				
Spatial Vision	General aspiration for the district.	Administrative text. Screened out.		
Strategic Objectives	Sets out the 16 strategic objectives and listed policies within the plan.	General aspirations. Screened out.		
Chapter 4: Strategy for Sustainable Development				
Policy SP1: Presumption in favour of Sustainable Development	General aspiration for sustainable developments in accord with national policy.	General aspirations. Screened out.		
Policy SP2: Strategy for Sustainable Development to meet identified needs	General criteria for the Plan overall, setting out the quantum of growth.	Policy likely to have an effect on a European site. Screened in. LSE.	Water issues alone (Durham Coast SAC, Northumbria Coast SPA/Ramsar); Recreation effects alone (Durham Coast SAC, Northumbria Coast SPA/Ramsar).	Sets the overall quantum of growth, including overall target to deliver approximately 5,253 new homes and a minimum of 49.41ha of land for general economic development.
Policy SP3: Spatial Strategy for sustainable development	Strategic spatial policy for sustainable, community development but no specific levels of growth at specific locations.	General criteria. Screened out.		
Chapter 5: Strategic Allocations				
Policy SP4: Housing Allocations in the Main Urban Area	A comprehensive list of all land allocations within the main urban area.	Policy may have a likely significant effect on a	Water issues in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar); Recreation in-combination	Allocates 25 sites with an overall indicative capacity of 849 dwellings.

Plan section or policy	Description	Initial LSE screening	Potential risks	Comments
		European site. Screened in. LSE.	(Durham Coast SAC, Northumbria Coast SAC/Ramsar).	
Policy SP5: Former Brinkburn Comprehensive School	Allocation.	Policy may have a likely significant effect on a European site. Screened in. LSE.	Water issues in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar); Recreation in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar).	Site allocation of 151 residential units, community facilities and enhancement of playing fields.
Policy SP6: Land at former Chuter Ede Education Centre	Allocation.	Policy may have a likely significant effect on a European site. Screened in. LSE.	Water issues in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar); Recreation in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar).	Site allocation for the development of a total of 190 residential units and community facilities.
Policy SP7: Urban and Village Sustainable Growth Areas	Site allocations.	Policy may have a likely significant effect on a European site. Screened in. LSE.	Water issues in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar); Recreation in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar).	Allocates 6 sites with an overall indicative capacity of 1,108 dwellings.
Policy SP8: Fellgate Sustainable Growth Area	Allocation. Criteria for site allocation and provision of new local centre, adjusted green belt, community facilities and associated infrastructure.	Policy may have a likely significant effect on a European site. Screened in. LSE.	Water issues in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar); Recreation in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar).	Site allocation and criteria for the delivery of approximately 1,200 homes.
Policy SP9: Strategic Vision for South Shields Town Centre Regeneration	Strategic text outlining the steps to regenerate the town centre, investing in leisure facilities, residential housing, travel and active travel infrastructure.	Strategic text. Screened out.		
Policy SP10: South Shields Riverside Regeneration Area	Allocation.	Policy relates to a site already granted planning permission. Screened out.	Water issues in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar); Recreation in-combination	Mixed use development site of 299 residential properties and office space. Screened

Plan section or policy	Description	Initial LSE screening	Potential risks	Comments
			(Durham Coast SAC, Northumbria Coast SAC/Ramsar).	out at Plan level as already has planning permission and has been subject to project level HRA.
Policy SP11: South Shields Town Centre College Regeneration Site	Criteria for College Campus and Marine School relocation and development.	Policy listing general strategic text. Screened out.		
Policy SP12: Fowler Street Improvement Area	Site allocations. Criteria for the development of student and residential accommodation and overall enhancement to the area.	Policy may have a likely significant effect on a European site. Screened in. LSE.	Water issues in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar); Recreation in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar).	Improvement area contains 2 sites (H4 and H5) that are allocated under SP4 for the provision of 75 homes.
Policy SP13: Foreshore Improvement Area	Policy supporting leisure and tourism development. Flags need for proposals to have regard to HRA issues as well as Shoreline Management Plan and flood risk.	Strategy for Sustainable Development to meet identified needs	Recreation in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar).	Policy area refers to shoreline in close proximity (5 metres) to Northumbria Coast SPA/Ramsar of which the pier is used as a roost by wintering birds and Durham Coast SAC (55 metres). While policy is strategic, with no specific allocation it does refer to public realm improvements and therefore screened in on a precautionary basis.
Policy SP14: Wardley Colliery	Employment land allocation.	Policy may have a likely significant effect on a European site. Screened in. LSE.	Water issues in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar).	Allocation for general economic development (12.7ha).

Plan section or policy	Description	Initial LSE screening	Potential risks	Comments
Chapter 6: Promoting Healthy Communities				
Policy 1: Promoting Healthy Communities	Developments that promote healthy lifestyles by the provision of active travel networks, addressing levels of pollutants and enhancing green and blue infrastructure networks will be supported.	Policy listing general criteria. Screened out.		
Policy 2: Air Quality	Development will be supported where air quality is improved.	Policy listing general criteria. 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 <u>People Over Wind</u>).
Policy 3: Pollution	Criteria for development proposals to prevent the levels of pollutants from being harmful.	Policy listing general criteria. Screened out.		
Policy 4: Contaminated Land and Ground Stability	Criteria that require ground stability and contamination to be considered within development proposals.	Policy listing general criteria. Screened out.		
Chapter 7: Meeting the challenge of climate change,				

Plan section or policy	Description	Initial LSE screening	Potential risks	Comments
flooding and coastal change				
Policy SP15: Climate Change	Criteria to deliver sustainable developments and demonstratively reduce carbon emissions to mitigate and adapt to the effects of climate change.	Policy listing general criteria. Screened out.		
Policy 5: Reducing energy consumption and carbon emissions	Policy outlines guidance for any developments to reduce their carbon emissions, considering the lifetime of carbon within materials, water/waste management and overall design.	Policy listing general criteria. Screened out.		
Policy 6: Renewables and Low Carbon Energy Generation	Criteria for the development of district heating networks and wind energy developments.	Policy listing general criteria. 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 outlines the management of flood risk in the district, including only allowing development in low flood risk areas.	Policy listing general criteria. Screened out.		
Policy 8: Flood Risk Assessment (FRA) and Drainage Strategy	Development proposals will demonstrate that they are not at risk of flooding and will not increase	Strategic text. Screened out.		

Plan section or policy	Description	Initial LSE screening	Potential risks	Comments
	flood risk elsewhere. Policy also details guidance for developments in each flood zone.			
Policy 9: Sustainable Drainage Systems	SuDs will be required for any major developments, in accordance with current standards and contribute towards blue/green infrastructure networks.	Strategic text. Screened out.		
Policy 10: Disposal of Foul Water	Outlines the drainage hierarchy for developments and refers to the Foul Water Management Plan assessment for trade waste during development.	Policy listing general criteria. Screened out.		
Policy 11: Protecting Water Quality	Policy states general criteria to enhance and protect groundwater bodies with appropriate mitigation of pollutants, a development free buffer and naturalising or creating wetland habitat where possible.	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 a European site and therefore does not conflict with <u>People Over Wind.</u>
Policy 12: Coastal Change	Development within the Coastal Management Area will be limited and dependant on policy criteria regarding coastal erosion.	General plan-wide environmental protection policy. Screened out.		Development proposals that may have likely significant effects on coastal European Sites will be subject to a project level HRA.
Chapter 8: Delivering a mix of homes				

Plan section or policy	Description	Initial LSE screening	Potential risks	Comments
SP16: Housing Supply and Delivery	Sets the overall quantum of growth required to deliver level of housing, and the existing areas with allocations.	Policy may have a likely significant effect on a European site alone. LSE.	Water issues alone (Durham Coast SAC, Northumbria Coast SPA/Ramsar); Recreation alone (Durham Coast SAC, Northumbria Coast SPA/Ramsar).	Overall quantum of growth of approximately 5,235 new homes (309 per year).
Policy 13: Windfall and Backland sites	Policy lists criteria including character, site location and access infrastructure for which smaller developments would be supported.	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 14: Housing Density	Developments must optimise the density of the site.	Policy listing general criteria. Screened out.		
Policy 15: Existing Homes	Policy addresses regeneration of the district, by enhancing the attractiveness and energy efficiency of existing residential neighbourhoods, and repurposing buildings for residential use.	Policy that cannot have any conceivable adverse effect on a site. Screened out.		
Policy 16: Houses in Multiple Occupation	General criteria for multiple occupation developments.	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 17: Specialist Housing – Extra Care & Supported Housing	Developments for specialist housing will be supported where there is reasonable access to local facilities and infrastructure. Independent living will be promoted in new developments.	Policy listing general criteria. Screened out.		
Policy 18: Affordable Housing	Developments of 10 or more dwellings will be required to deliver a level of affordable housing as described within the policy criteria.	Policy listing general criteria. Screened out.		

Plan section or policy	Description	Initial LSE screening	Potential risks	Comments
Policy 19: Housing Mix	Developments should deliver a mix of housing types within the district, and where possible seek to supply detached housing, including bungalows suitable for an increasing elderly population.	Policy listing general criteria. Screened out.		
Policy 20: Technical Design Standards for New Homes	All new developments will be built to meet appropriate regulations (specifically wheelchair and accessible homes).	Policy listing general criteria. Screened out.		
Policy 21: Gypsies, Travellers and Travelling Showpeople	Policy states that existing gypsy and traveller site will be maintained and states the criteria for proposals of any new sites.	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Chapter 9: Building a strong, competitive economy				
Policy SP17: Strategic Economic Development	Objectives for economic developments and investments in the district.	Policy may have a likely significant effect on a European site alone. LSE.	Water issues alone (Durham Coast SAC, Northumbria Coast SPA/Ramsar).	General policy linking to SP2 and setting the overall quantum of economic growth (portfolio of 278.35ha for general development and a further 141.3ha for specialist port).
SP18: Employment Land for General Economic Development	Employment allocations.	Policy may have a likely significant effect on a European site alone. LSE.	Water issues alone (Durham Coast SAC, Northumbria Coast SPA/Ramsar).	Policy lists 11 sites allocated for employment development.

Plan section or policy	Description	Initial LSE screening	Potential risks	Comments
SP19: Provision of Land for Port and River- Related Development	General aspirations about the type of employment development that will be supported Port of Tyne.	General allocations and policy. Screened out.		
Policy 22: Protecting Employment Uses	Policy lists the criteria for which alternative developments within employment allocated land would be permitted.	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 23: Employment Development beyond Employment Allocations	Policy lists criteria for which employment developments will be supported outside the main urban area.	Policy listing general criteria. Screened out.		
Policy 24: Safeguarding land at CEMEX Jarrow Aggregates Wharf	Land at CEMEX Wharf safeguarded for processing of marine aggregates.	General criteria for testing the acceptability of proposals. Screened out.		
Policy 25: Leisure and Tourism	Policy outlines the enhancement at extension of existing tourist infrastructure, including recreational facilities and accommodation.	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 does not conflict with <u>People</u> <u>Over Wind.</u>
Chapter 10: Ensuring the vitality of centres				

Plan section or policy	Description	Initial LSE screening	Potential risks	Comments
Policy SP20: The Hierarchy of centres	Policy sets out the key locations for investment and proposed town centre uses.	Policy that cannot lead to development or other change. Screened out.		
Policy 26: Ensuring Vitality and Viability in Town, District and Local Centres	General criteria to designed to maintain the vitality and viability of centres.	Policy that cannot lead to development or other change. Screened out.		
Policy 27: Prioritising Centres Sequentially	Development proposals outside of the centre will require a sequential assessment.	Policy that cannot lead to development or other change. Screened out.		
Policy 28: Impact Assessment	Impact assessments will be required for any leisure or retail developments outside of the town centre.	Policy that cannot lead to development or other change. Screened out.		
Policy 29: Local Neighbourhood Hubs	Policy lists general development criteria for small-scale shops, services and community facilities in local hubs.	Policy listing general criteria. Screened out.		
Policy 30: South Shields Market	South Shields market and associated events will continue to be supported in the town centre.	Policy that cannot lead to development or other change. Screened out.		
Policy 31: Evening and Night-time Economy in South Shields Town Centre	Evening and night-time attractions that enhance the vitality of the town centre will be supported.	Policy listing general criteria. Screened out.		
Policy 32: Hot Food Takeaways	Criteria that assess the viability of hot food takeaways in town centres and surrounding areas.	Policy that cannot lead to development or other change. Screened out.		
Chapter 11: Conserving and				

Plan section or policy	Description	Initial LSE screening	Potential risks	Comments
enhancing the Natural Environment				
Policy SP21: Natural Environment	Criteria to enhance and protect the natural environment.	General plan-wide environmental protection. Screened out.		
Policy 33: Biodiversity, Geodiversity and Ecological Networks	Ensures the protection and enhancement of networks during development to minimise adverse effects and provide appropriate mitigation.	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 the coastal European sites. Following <i>People Over Wind</i> this is screened in for further consideration as part of the appropriate assessment.
Policy 35: Delivering Biodiversity Net Gain	BNG should where possible enhance local ecological networks and be delivered by any non-exempt development.	General plan-wide environmental protection. Screened out.		
Policy 36: Protecting Trees, Woodland and Hedgerows	Criteria designed to protect ecological features and enhance local wildlife networks.	General plan-wide environmental protection. Screened out.		
Policy SP22: Green and Blue Infrastructure	Outlines the criteria to ensure that green and blue infrastructure will	General criteria plan-wide environmental protection. Screened out.		

Plan section or policy	Description	Initial LSE screening	Potential risks	Comments
	deliver a range of social, economic, health and environmental benefits.			
Policy 37: Protecting and enhancing Open Spaces	Criteria for the provision of open spaces with new developments, including the protection and enhancement of existing open spaces.	General criteria for plan-wide environmental protection. Screened out.		Policy criteria provides and protects open spaces, including the provision of recreational facilities. These provisions may incidentally help protect/mitigate European sites through absorbing additional recreational use.
Policy SP23: Sports provision and Playing Pitches	Policy lists the sites where recreational and sporting facilities will be enhanced or provided, with the criteria for meeting the sporting needs of the district.	Policy lists general criteria for testing proposals and protecting pitches. Screened out.		
Policy 38: Providing for Cemeteries	Policy states criteria for the extension or development of cemeteries.	Policy listing general criteria. Screened out.		
Policy 39: Areas of High Landscape Value	Developments within areas of high landscape value will protect the character, the views and opportunities for habitat enhancement.	General plan-wide environmental protection. Screened out.		
Policy 40: Agricultural Land	Development proposals will avoid the best agricultural land, with positive use of existing agricultural land encouraged within this policy, for environmental benefits.	General plan-wide environmental protection. Screened out.		

Plan section or policy	Description	Initial LSE screening	Potential risks	Comments
Policy 41: Green Belt	National planning policy will inform developments within the green belt.	General plan-wide environmental protection. Screened out.		
Chapter 12: Conserving and Enhancing the Historic Environment				
Policy SP24: Heritage Assets	Development proposals should enhance and positively contribute awareness of the historic environment.	Policy listing general criteria. Screened out.		
Policy 42: World Heritage Sites	Policy highlights the need to enhance, protect and contribute to the value of Hadrian's Wall and references the management plan, the buffer zone and notes that developments should not have any negative impacts to the site.	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 states criteria for developments involving heritage assets.	Policy listing general criteria. Screened out.		
Policy 44: Archaeology	Developments that would affect a potential archaeological site will require a desk-based assessment.	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 45: Development Affecting Non-Designated Heritage Assets	General criteria for developments near non-designated heritage assets.	Policy listing general criteria for testing the acceptability of proposals. Screened out.		

Plan section or policy	Description	Initial LSE screening	Potential risks	Comments
Policy 46: Heritage At Risk	Policy details methods for reducing the assets listed on Heritage at Risk register.	Policy that could not have any conceivable effect on a site. Screened out.		
Chapter 13: Well- designed places				
Policy 47: Design Principles	Design of developments will be sustainable, accessible and characteristic of the surroundings, achieved via the criteria in this policy.	Policy listing general criteria for testing the acceptability of proposals. Screened out.		
Policy 48: Shopfronts	Criteria for shopfront developments or alterations to existing shopfronts.	Policy listing general criteria. Screened out.		
Policy 49: Advertisements	Guidelines for advertisements to ensure that they will not affect public safety are respectful of their immediate surroundings.	Policy listing general criteria. Screened out.		
Chapter 14: Transport and Infrastructure				
Policy SP25: Infrastructure	Strategic text to ensure that the social, environmental and physical infrastructure are delivered.	Policy that could not have any conceivable effect on a site. Screened out.		
Policy 50: Social and community infrastructure	Provision of social and community infrastructure will be supported by the Council and criteria for meeting community infrastructure needs are set out in this policy.	Policy listing general criteria. Screened out.		
SP26: Delivering sustainable transport	Policy lists general criteria for the delivery of sustainable transport, access to public and private transport with new developments.	Policy listing general criteria. Screened out.		

Plan section or policy	Description	Initial LSE screening	Potential risks	Comments
Policy 51: Improving Capacity on the Road Network	Policy lists road networks where improvements will be targeted.	Policy that could not have any conceivable effect on a site. Screened out.		
Policy 52: Safeguarding Land for Metro and Rail Development	Policy lists the sites safeguarded for Metro and Rail developments.	Policy could not have any conceivable effect on a site. Screened out.		
Policy 53: Airport and Aircraft Safety	Development will be permitted where it does not impact air traffic safety.	Strategic text. Screened out.		Policy relates to development that may impact aircraft safety and would not impact the number of flights and therefore have any implications for air quality.
Chapter 15: Waste and Minerals				
Policy 54: Waste Facilities	Policy lists criteria under which developments for new waste management facilities would be supported.	Policy listing general criteria. Screened out.		
Policy 55: Existing Waste Facilities	Existing waste management facilities will be protected.	Policy listing general criteria. Screened out.		
Policy 56: Minerals Safeguarding	General criteria to ensure that mineral resources and infrastructure will be safeguarded from non- mineral related development.	Policy listing general criteria. Screened out.		
Policy 57: Development Management Considerations for Mineral Extraction	Policy lists general criteria for proposals of mineral extraction, with regard to the extent, quality and significance of reserves extracted.	Policy listing general criteria. Screened out.		

Plan section or policy	Description	Initial LSE screening	Potential risks	Comments
Chapter 16: Implementation and Monitoring				
Policy 58: Implementation and Monitoring	The Plan will be monitored via the Local Plan Monitoring Framework.	Policy that could not have any conceivable effect on a site. Screened out.		
Policy 59: Delivering Infrastructure	Strategic text stating the responsibility to contribute to or provide mitigation for the impacts of development.	Policy that could not have any conceivable effect on a site. Screened out.		
Policy 60: Developer Contributions, Infrastructure Funding and Viability	Strategic text stating that new development will be expected to contribute to infrastructure provision.	Policy that could not have any conceivable effect on a site. Screened out.		

Table 2: Summary of distances (km) from the closest part of each housing site to the closest point of each of the European sites. Distances under 500m are shown in red.

		NL	Distance (km) from allocation	
Allocation		No. dwellings	Durham Coast SAC	Northumbria Coast SPA/Ramsar
SP4: Housing Allocations in the Main Urban Area:				
Land at Chatsworth Court	H.1	15	1.6	0.75
Land at Salem Street	H.2	18	2.1	1.1
Land at Queen Street	H.3	20	2.1	1.1
Winchester Street	H.4	35	1.6	0.9
Land to the rear of Fowler Street	H.5	40	1.8	1.0
Site of Former St Aidans Church	H.6	14	1.7	0.4
Site of Former South Tyneside College – South Shields Campus	H.7	163	0.9	1.0
Land at Associated Creameries	H.8	30	2.7	2.9
Former Temple Park Infant School	H.9	22	3.6	3.7
Connolly House, Reynolds Avenue	H.10	18	3.6	3.7
Tyne Dock housing-led Regeneration Site	H.11	69	2.9	3.0
Land at Biddick Hall Drive	H.12	6	3.5	3.6
Land behind Ryedale Court	H.13	15	3.9	4.0
Land at Horton Avenue	H.14	4	3.4	3.5
Land at Cheviot Road	H.15	25	0.6	0.7
Land at Bonsall Court	H.16	16	2.6	2.6
Land at Lizard Lane	H.17	12	0.2	0.5
Land at Dean Road	H.18	62	1.4	1.6
Land at Trent Drive	H.19	8	6.6	6.6
Perth Green Youth Centre, Perth Avenue	H.20	44	5.2	5.3
Land at previously Martin Hall, Prince Consort Road	H.21	15	5.4	5.5
Land at Falmouth Drive	H.22	40	4.8	4.9

		Na	Distance (km) from allocation	
Allocation	Site Ref	No. dwellings	Durham Coast SAC	Northumbria Coast SPA/Ramsar
Land at Kirkstone Avenue	H.23	2	6.2	6.2
Hebburn New Town	H.24	110	7.7	7.9
Land south-west of Prince Consort Road	H.25	46	8.0	8.1
SP5: Former Brinkburn Comprehensive School	SP5	150	2.1	2.3
SP6: Land at former Chuter Ede Education Centre	SP6	190	4.0	4.2
SP7: Urban and Village Sustainable Growth Areas:				
Land at South Tyneside College, Hebburn Campus	GA1	115	8.6	8.7
Land at North Farm	GA2	263	4.6	4.6
Land to North of Town End Farm	GA3	400	5.9	5.9
Land at West Hall Farm	GA4	259	1.9	1.9
Land at Whitburn Lodge	GA5	30	0.4	0.9
Land to North of Shearwater	GA6	41	0.4	0.8
SP8: Fellgate Sustainable Growth Area	SP8	1200	6.9	6.9
SP10: South Shields Riverside Regeneration Area	SP10	299 ²⁰	2.3	1.5
SP12: Fowler Street Improvement Area ²¹	SP12	75	1.7	0.8

²⁰ Already permitted and included in commitments

²¹ The distances here reflect the distance from the improvement area to the relevant European sites. Sites H4 and H5 are within the improvement area (and allocated under Policy SP4).

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:
 - Water (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: Water issues alone (Durham Coast SAC, Northumbria Coast SPA/Ramsar); Recreation effects alone (Durham Coast SAC, Northumbria Coast SPA/Ramsar)..
 - Policy SP4: Housing Allocations in the Main Urban Area: Water issues in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar); Recreation in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar).
 - Policy SP5: Former Brinkburn Comprehensive School: Water issues in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar); Recreation in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar).
 - **Policy SP6: Land at former Chuter Ede Education Centre:** Water issues in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar); Recreation in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar).
 - **Policy SP7: Urban and Village Sustainable Growth Areas:** Water issues in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar); Recreation in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar).
 - **Policy SP8: Fellgate Sustainable Growth Area:** Water issues incombination (Durham Coast SAC, Northumbria Coast SAC/Ramsar); Recreation in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar).

- **Policy SP12: Fowler Street Improvement Area:** Water issues incombination (Durham Coast SAC, Northumbria Coast SAC/Ramsar); Recreation in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar).
- **Policy SP13: Foreshore Improvement Area**: Recreation alone (Durham Coast SAC, Northumbria Coast SPA/Ramsar).
- **Policy SP14: Wardley Colliery:** Water issues in-combination (Durham Coast SAC, Northumbria Coast SAC/Ramsar).
- **Policy SP16: Housing Supply and Delivery:** Water issues alone (Durham Coast SAC, Northumbria Coast SPA/Ramsar); Recreation alone (Durham Coast SAC, Northumbria Coast SPA/Ramsar).
- **Policy SP17: Strategic Economic Development:** Water issues alone (Durham Coast SAC, Northumbria Coast SPA/Ramsar).
- Policy SP18: Employment Land for General Economic Development: Water issues alone (Durham Coast SAC, Northumbria Coast SPA/Ramsar).
- 3.13 Water issues and recreation are therefore topics that are taken to appropriate assessment and are the focus for the later stages of this assessment.
- 3.14 Screening did not take into account mitigation measures, which are set out in Policy 34: Internationally, Nationally and Locally Important Sites.
 Mitigation measures are considered in detail within the relevant appropriate assessment section.

4. Appropriate assessment topic: water issues

- 4.1 Screening identified likely significant effects for the following policy alone for the Durham Coast SAC and the Northumbria Coast SPA/Ramsar in relation Hydrological impacts. The policy establishes the overall level of growth 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.
- 4.2 Screening identified likely significant effects for the following policies incombination:
 - Policy SP4: Housing Allocations in the Main Urban Area
 - Policy SP5: Former Brinkburn Comprehensive School;
 - Policy SP6: Land at former Chuter Ede Education Centre
 - Policy SP7: Urban and Village Sustainable Growth Areas
 - Policy SP8: Fellgate Sustainable Growth Area
 - Policy SP12: Fowler Street Improvement Area
 - Policy SP14: Wardley Colliery
 - Policy SP16: Housing Supply and Delivery
 - Policy SP17: Strategic Economic Development
 - Policy SP18: Employment Land for General Economic Development.

Introduction

- 4.3 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 where the qualifying features depend on water quality.
- 4.4 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.
- 4.5 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

- 4.6 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.
- 4.7 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.
- 4.8 The first River Basin Management Plans were produced in 2009 and then updated in 2015 and 2022. In the more recent third 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 European 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.
- 4.9 The Northumbria Water Resources Management Plan²² 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 secure supply of water over the given period. The South Tyneside Infrastructure Delivery Plan²³ confirms there are no water supply issues.

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

²³ Available on the <u>S. Tyneside Council website</u>, see para 6.22

- Natural England's site improvement plan²⁴ for the Durham Coast SAC does 4.10 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 seacliffs) 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.
- 4.11 GIS data indicating the locations of flushes and seepages around the cliffs are not available and may well shift and change over time. On a precautionary basis, risks are therefore identified for any that might affect hydrology around the cliffs, for example by preventing water percolating through the ground, affecting run-off or changing water movement. All the allocations identified in the Plan are set well back from the coast and based on the locations (see Map 3) adverse effects on integrity can be ruled out alone. Given the locations there are no residual effects and no need for incombination assessment.
- 4.12 The site improvement plan for the Northumbria Coast SPA²⁵ 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. As such there are no risks relevant for this site and adverse effects on integrity can be ruled out alone or in-combination.

Water quality

4.13 Wastewater or sewage is very damaging to water bodies as it can contain large amounts of nutrients (such as phosphorus and nitrates), ammonia,

²⁴ See <u>relevant page on Natural England website</u>

²⁵ See <u>relevant page on Natural England website</u>

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.

- 4.14 River Basin Management Plans provide the framework for protecting and enhancing the water environment. The relevant plan for Northumbria²⁶ 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.
- 4.15 Natural England (NE) has advised 74 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.
- 4.16 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.
- 4.17 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

²⁶ https://www.gov.uk/guidance/northumbria-river-basin-district-river-management-plan-updated-2022

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.

- 4.18 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."
- 4.19 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.
- 4.20 As such risks are therefore identified for any that might affect water quality in the seepages and flushes around the cliffs, for example affecting run-off or any outflow from septic tanks etc. All the allocations identified in the Plan are set well back from the coast and will be connected to the sewer system; based on the locations (see Map 3) adverse effects on integrity can be ruled out alone. Small sites and windfall will require assessment at a project level and this is made clear in Policy 34 and the section on international sites. Given the allocations in the Plan, there are no residual effects and no need for in-combination assessment.
- 4.21 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 same plan (namely Lindisfarne SPA, Berwickshire & North Northumberland Coast SAC and the Tweed SAC).
- 4.22 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).
- 4.23 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. Both species feed on invertebrates, including those associated with rotting seaweed/algae, and there is little apparent risk in terms of water quality for these species. As such adverse effects on integrity can be ruled out alone or in-combination.

5. Appropriate assessment topic: Recreation

- 5.1 The initial screening identified the potential for likely significant effects in respect to recreation for the following policies alone; these either set the overall quantum of growth or, in the case of the improvement area, are very close to the coast:
 - Policy SP2: Strategy for Sustainable Development to meet identified needs.
 - Policy SP13: Foreshore Improvement Area
- 5.2 The following policies relate to specific allocations or growth at specific locations and the potential for likely significant effects were identified incombination:
 - Policy SP4: Housing Allocations in the Main Urban Area
 - Policy SP5: Former Brinkburn Comprehensive School
 - Policy SP6: Land at former Chuter Ede Education Centre
 - Policy SP7: Urban and Village Sustainable Growth Areas
 - Policy SP8: Fellgate Sustainable Growth Area
 - Policy SP12: Fowler Street Improvement Area
 - Policy SP16: Housing Supply and Delivery
- 5.3 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. 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

- 5.4 The Northumbria Coast SPA qualifies for two species of wintering waterbirds (as well as the terns), Turnstone and Purple Sandpiper.
- 5.5 Disturbance to wintering and passage waterfowl can result in:
 - A reduction in the time spent feeding due to repeated flushing/increased vigilance (Fitzpatrick and Bouchez, 1998; Stillman and Goss-Custard, 2002; Bright *et al.*, 2003; Thomas, Kvitek and Bretz, 2003; Yasué, 2005)
 - Increased energetic costs (Stock and Hofeditz, 1997; Nolet *et al.*, 2002)

- Avoidance of areas of otherwise suitable habitat, potentially using poorer quality feeding/roosting sites instead (Cryer *et al.*, 1987; Gill, 1996; Burton *et al.*, 2002; Burton, Rehfisch and Clark, 2002)
- Increased stress (Regel and Putz, 1997; Weimerskirch *et al.*, 2002; Walker, Dee Boersma and Wingfield, 2006; Thiel *et al.*, 2011)
- 5.6 Disturbance has been identified by Natural England as a generic issue across many European Marine Sites (see Coyle and 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 and Fearnley, 2010; Liley and 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 events²⁷ 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. The birds are mobile and will utilise different areas at different times of year and respond to changing conditions, weather and prey availability. At some times birds may use areas outside the SPA and where there is functional-linkage, such areas are relevant to the assessment.
- 5.7 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 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 of human disturbance. The inference was that the refuges, which were off-shore

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

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

- 5.8 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.
- 5.9 Dog fouling is a widely recognised issue in low-nutrient semi-natural systems (Taylor *et al.*, 2005; Groome, Denton and Smith, 2018). 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.
- 5.10 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.
- 5.11 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.

- 5.12 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, Butler and Klier, 2018). The illicit use of vehicles, such as 4x4s and quad bikes is likely to be especially damaging.
- 5.13 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.
- 5.14 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 and Tantram, 1999).
- 5.15 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.
- 5.16 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 3: 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 <i>et al.</i> (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 <i>et al.</i> (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 <i>et al.</i> (2005); Wichmann <i>et al.</i> (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 <i>et al.</i> (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 <i>et al.</i> (2008).	Localised damage to vegetation and soil, e.g. from use of disposable BBQs.
Disturbance to birds	Purple Sandpiper and Turnstone	September - March	Whittingham <i>et al.</i> (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

- 5.17 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 and Caals, 2022).
- 5.18 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, Panter and Chapman, 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.
- 5.19 There is little information on overall visitor numbers. Exeter University's ORVaL tool (Day and 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

5.20 The supplementary conservation advice for the Northumbria Coast SPA²⁸ 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 so

²⁸ See <u>relevant page on Natural England website</u>

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

5.21 The supplementary conservation advice for the Durham Coast SAC²⁹ 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.

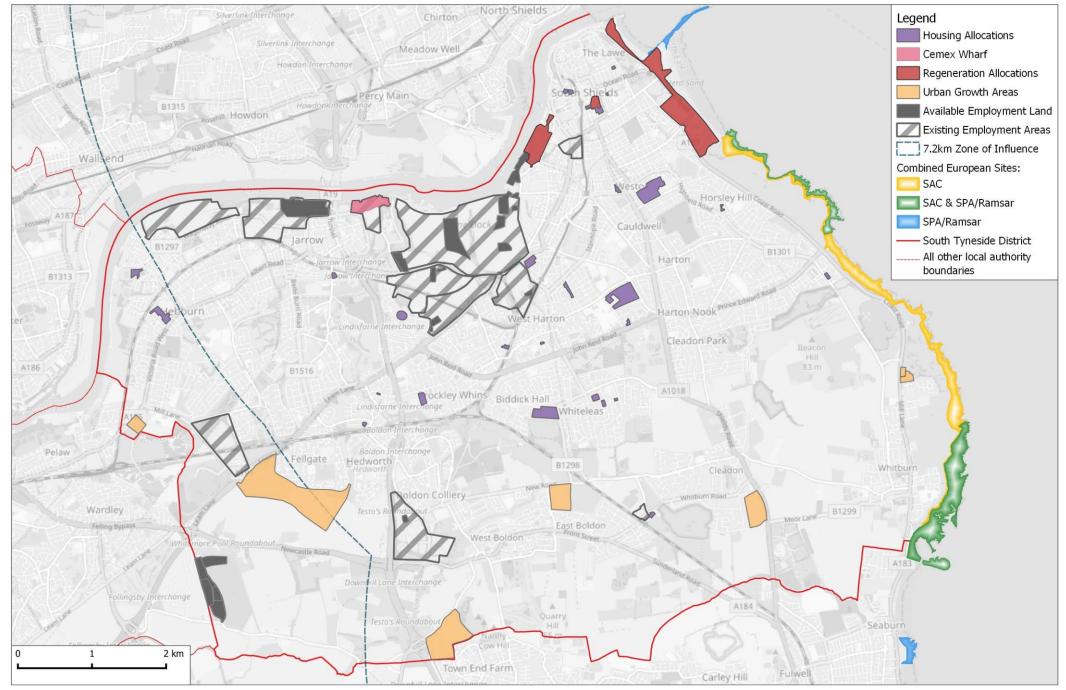
Implications for the Plan

- 5.22 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.
- 5.23 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. Policy 34 (Internationally, Nationally and Locally Important Sites) in the Plan now refers to 7.2km and it is also clear that this may change with time depending on the most recent data. The 7.2km zone and allocations within the Plan are shown in Map 4.
- 5.24 All new residential developments (Use Class C3 and C4, Change of Use to C3/C4 and Prior Notifications) are 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.
- 5.25 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 longterm 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.

²⁹ See <u>relevant page on Natural England website</u>

5.26 South Tyneside Council have been drafting a new version of the Strategy and this is intended to be in place by the time the Local Plan is submitted for examination. Visitor surveys has been commissioned over the winter 2022/23, on the advice of Natural England, and these will provide background evidence to underpin any changes to the strategy, for example whether access has changed following the pandemic and whether there are any changes in the zone of influence.

Map 4: European Sites and the current 7.2km Zone of Influence in relation to Local Plan allocations.



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6. Integrity Test

- 6.1 The South Tyneside Local Plan (Regulation 19 version, December 2023) has been subjected to an appropriate assessment and integrity test according to the statutory provisions laid out in the Habitats Regulations 2017 as amended. The HRA can conclude that the South Tyneside Local Plan is in conformity with the Habitats Regulations, and at a plan level a conclusion of no adverse effects, alone or in-combination, on European site integrity can be drawn.
- 6.2 Given the distribution of development in the Plan, we can identify that housing growth and other development will not lead to any further deterioration in water quality or supply on the Durham Coast SAC. With no impacts alone, there is no need for in-combination assessment as there is no risk of cumulative effects.
- 6.3 For the Northumbria Coast SPA/Ramsar water availability and water quality in relation to impacts from development are not identified as a cause for concern and this position has been checked with Natural England. With no impacts alone, adverse effects on integrity can be ruled out, alone or in-combination for water-related issues and the Northumbria Coast SPA/Ramsar.
- 6.4 Recreation impacts in the absence of mitigation are identified for the Durham Coast SAC and the Northumbria Coast SPA/Ramsar. Mitigation is delivered through a mitigation strategy which has been running since 2018 and is secured in policy within the Plan.
- 6.5 With an updated mitigation strategy in place and delivering the necessary mitigation it will be possible to conclude adverse effects on integrity from recreation can ruled out. The strategy dovetails with similar strategies running along the coast and the strategic mitigation means adverse effects on integrity can also be ruled out in-combination. The revised strategy is planned to accompany the Local Plan at submission.

References

Bluegrass (2015) *Habitats Regulations Assessment Winter Findings November 2014 - April 2015*. Bluegrass (2016) *South Tyneside, Sunderland and Durham Coastal Visitor Winter Survey*.

- Bright, A. *et al.* (2003) 'Effects of motorised boat passes on the time budgets of New Zealand dabchick, Poliocephalus rufopectus', *Wildlife Research*, 30(3), pp. 237–244.
- Burton, N.H., Rehfisch, M.M. and Clark, N.A. (2002) 'Impacts of disturbance from construction work on the densities and feeding behavior of waterbirds using the intertidal mudflats of Cardiff Bay, UK', *Environ Manage*, 30(6), pp. 865–71.
- Burton, N.H.K. *et al.* (2002) 'Impacts of man-made landscape features on numbers of estuarine waterbirds at low tide', *Environ. Manage.*, 30(6), pp. 857–864.
- CIEEM (2021) *Advice on Ecological Assessment of Air Quality Impacts*. Chartered Institute of Ecology and Environmental Management.
- Cook, A.S.C.P. et al. (2013) Changes in numbers of wintering waterbirds in the Constituent Countries of the United Kingdom, Special Protection Areas (SPAs) and Sites of Specific Scientific Interest (SSSIs). BTO Research Report 641. Thetford, Norfolk: BTO. Available at: http://www.bto.org/volunteer-surveys/webs/publications/webs-alerts.
- Coyle, M. and Wiggins, S. (2010) *European Marine Site Risk Review*. Natural England Research Report NERR038. Natural England.
- Cryer, M. *et al.* (1987) 'Disturbance of overwintering wildfowl by anglers at two reservoir sites in South Wales.', *Bird Study*, 34(3), pp. 191–199.
- Day, B.H. and Smith, G. (2018) *Outdoor Recreation Valuation (ORVal) User Guide: Version 2.0.* Land, Environment, Economics and Policy (LEEP) Institute, Business School, University of Exeter. Available at: http://leep.exeter.ac.uk/orval/.

- Fitzpatrick, S. and Bouchez, B. (1998) 'Effects of recreational disturbance on the foraging behaviour of waders on a rocky beach', *Bird Study*, 45(Pt2), pp. 157–171.
- Gill, J.A. (1996) 'Habitat choice in wintering pink-footed geese: quantifying the constraints determining winter site use', *Journal of Applied Ecology*, 33, pp. 884–892.
- Groome, G., Denton, J. and Smith, P. (2018) *The impact of dogs on the environment*. CIEEM, pp. 12–16.
- Haycock and Jay Associates Ltd. (2021) *Durham Coast Special Area of Conservation South Tyneside and Sunderland Phase 1 and National Vegetation Classification Survey*. Report for South Tyneside Council.
- Holman, C. *et al.* (2019) *A guide to the assessment of air quality impacts on designated nature conservation sites - version 1.0.* London: Institute of Air Quality Management. Available at: http://www.iaqm.co.uk/text/guidance/air-quality-impacts-on-nature-sites-2019.pdf.
- Hoskin, R. et al. (2018) South Tyneside Interim Habitats Regulations Assessment and
 Supplementary Planning Document. Report 3: Supplementary planning Document.
 Mitigating for the Effect of Increased Coastal Recreation from New Residential Development.
 Footprint Ecology / South Tyneside Council. Available at:
 https://www.southtyneside.gov.uk/media/36738/SPD-23-AdoptionStatement/pdf/Interim_SPD23_Adoption_Notice.pdf.
- Hoskin, R. *et al.* (2019) *Habitats Regulations Assessment of the South Tyneside Pre-publication Draft Plan (Regulation 18 stage).* Unpublished report for South Tyneside Council 560. Footprint Ecology / South Tyneside Council.

Kirby, J.S. and Tantram, D.A.S. (1999) *Monitoring heathland fires in Dorset: Phase 1*. Liddle, M.J. (1997) *Recreation Ecology*. London: Chapman & Hall. Liley, D. et al. (2010) Welsh Seasonal Habitat Vulnerability Review. Footprint Ecology / CCW.

- Liley, D. *et al.* (2017) *Recreational activity and interactions with birds within the SSSIs on the North-West coast of England*. Unpub. 362. Footprint Ecology / Natural England.
- Liley, D. and Fearnley, H. (2012) *Poole Harbour Disturbance Study*. Footprint Ecology / Natural England.
- Liley, D., Panter, C. and Chapman, C. (2021) 'Zones of influence for strategic housing growth and recreation impacts: review and best practice', *Habitats Regulations Assessment Journal*, (16), pp. 20–22.
- Liley, D., Stillman, R.A. and Fearnley, H. (2010) *The Solent Disturbance and Mitigation Project Phase II. Results of bird disturbance fieldwork, 2009/10.* Footprint Ecology / Solent Forum.
- Lowen, J. *et al.* (2008) 'Access and Nature Conservation Reconciliation: supplementary guidance for England.' Available at: internal-pdf://NECR013 Access and N C Reconciliation - Supp Guidance-2802587904/NECR013 Access and N C Reconciliation -Supp Guidance.pdf.
- Martin, R.H., Butler, D.R. and Klier, J. (2018) 'The influence of tire size on bicycle impacts to soil and vegetation', *Journal of Outdoor Recreation and Tourism*, 24, pp. 52–58. Available at: https://doi.org/10.1016/j.jort.2018.08.002.
- Natural England (2018) *Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations*. NEA 001. Natural England. Available at:

http://publications.naturalengland.org.uk/file/5431868963160064.

Nolet, B.A. *et al.* (2002) 'Habitat switching by Bewick's swans: maximization of average longterm energy gain?', *J. Anim. Ecol.*, 71(6), pp. 979–993.

- Oates, M. (1999) 'Sea cliff slopes and combes their management for nature conservation', *British Wildlife*, 10(6), pp. 395–402.
- Panter, C. and Caals, Z. (2022) *South Tyneside and Sunderland Coast Visitor Survey Analysis*. Footprint Ecology.
- Percival, S. et al. (2017) Wansbeck Blyth Harbour Wind Farm: Turnstone and Purple Sandpiper Project 2016-2017.
- Regel, J. and Putz, K. (1997) 'Effect of human disturbance on body temperature and energy expenditure in penguins', *Polar Biology*, 18(4), pp. 246–253.
- Stillman, R.A. *et al.* (2012) *Solent Disturbance and Mitigation Project Phase II: Predicting the impact of human disturbance on overwintering birds in the Solent*. Solent Forum / Bournemouth University / Footprint Ecology.
- Stillman, R.A. and Goss-Custard, J.D. (2002) 'Seasonal changes in the response of oystercatchers Haematopus ostralegus to human disturbance', *J. Avian Biol.*, 33(4), pp. 358–365.
- Stock, M. and Hofeditz, F. (1997) 'Compensatory limits: energy budgets of Brent Geese, Branta b. bernicla, the influence of human disturbance', *Journal für Ornithologie*, 138(4), pp. 387–411.

Taylor, K. et al. (2005) Dogs, access and nature conservation. Peterborough: English Nature.

Thiel, D. *et al.* (2011) 'Winter tourism increases stress hormone levels in the Capercaillie Tetrao urogallus', *Ibis*, 153(1), pp. 122–133. Available at: https://doi.org/10.1111/j.1474-919X.2010.01083.x.

- Thomas, K., Kvitek, R.G. and Bretz, C. (2003) 'Effects of human activity on the foraging behavior of sanderlings Calidris alba', *Biological Conservation*, 109(1), pp. 67–71. Available at: https://doi.org/10.1016/S0006-3207(02)00137-4.
- Thuiller, W. *et al.* (2005) 'Niche-based modelling as a tool for predicting the risk of alien plant invasions at a global scale', *Global Change Biology*, 11(12), pp. 2234–2250. Available at: https://doi.org/10.1111/j.1365-2486.2005.001018.x.
- Tyldesley, D. and Chapman, C. (2021) *The Habitats Regulations Handbook*. DTA Publications. Available at: https://www.dtapublications.co.uk/handbook/.
- Underhill-Day, J.C. (2005) *A literature review of urban effects on lowland heaths and their wildlife*. Peterborough: English Nature. Available at: internal-pdf://EN RR 623, John Day literature review of urban effects-3794804480/EN RR 623, John Day literature review of urban effects.pdf.
- Walker, B.G., Dee Boersma, P. and Wingfield, J.C. (2006) 'Habituation of Adult Magellanic Penguins to Human Visitation as Expressed through Behavior and Corticosterone Secretion', *Conservation Biology*, 20(1), pp. 146–154.
- Weimerskirch, H. *et al.* (2002) 'Heart rate and energy expenditure of incubating wandering albatrosses: basal levels, natural variation, and the effects of human disturbance', *J Exp Biol*, 205(Pt 4), pp. 475–83.

Whitehouse, A.T. (2007) *Managing coastal soft cliffs for invertebrates*. Peterborough: Buglife.
Available at: internal-pdf://Whitehouse 2007 Managing Soft Cliffs for Invertebrates2258167041/Whitehouse 2007 Managing Soft Cliffs for Invertebrates.pdf internalpdf://Whitehouse 2007 Managing Soft Cliffs for Invertebrates_Summary2224645121/Whitehouse 2007 Managing Soft Cliffs for Invertebrates_Summary.pdf.

- Whittingham, M.J. *et al.* (2019) 'Offshore refuges support higher densities and show slower population declines of wintering Ruddy Turnstones Arenaria interpres', *Bird Study*, 66(4), pp. 431–440. Available at: https://doi.org/10.1080/00063657.2020.1713725.
- Wichmann, M.C. *et al.* (2009) 'Human-mediated dispersal of seeds over long distances', 276(1656), pp. 523–532. Available at: https://doi.org/10.1098/rspb.2008.1131.
- Yasué, M. (2005) 'The effects of human presence, flock size and prey density on shorebird foraging rates', *Journal of Ethology*, 23(2), pp. 199–204. Available at: https://doi.org/10.1007/s10164-005-0152-8.

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 website³⁰, and the link cross-references to the Ramsar site information page.

European site	Qualifying features	Description
<u>Durham Coast</u> <u>SAC</u>	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.
<u>Northumberland</u> <u>Marine SPA</u>	A191 <i>Sterna sandvicensis</i> ; Sandwich tern (Breeding) A192 <i>Sterna dougallii</i> ; Roseate tern (Breeding) A193 <i>Sterna hirundo</i> ; 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 <u>http://archive.jncc.gov.uk/default.aspx?page=2392</u>

European site	Qualifying features	Description
	A194 <i>Sterna paradisaea</i> ; Arctic tern (Breeding) A195 <i>Sternula albifrons</i> ; Little tern (Breeding) A199 <i>Uria aalge</i> ; Common guillemot (Breeding) A204 <i>Fratercula arctica</i> ; 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.
<u>Northumbria</u> <u>Coast Ramsar</u>	Little tern, <i>Sternula albifrons</i> - Breeding Purple sandpiper, <i>Calidris maritima</i> - Wintering Turnstone, <i>Arenaria interpres</i> - 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.
<u>Northumbria</u> <u>Coast SPA</u>	A148 Calidris maritima; Purple sandpiper (Non-breeding) A169 Arenaria interpres; Ruddy turnstone (Non-breeding) A194 <i>Sterna paradisaea</i> ; 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 <i>Sternula albifrons</i> , whilst in winter the mixture of rocky and sandy shore supports large number of Turnstone <i>Arenaria interpres</i> and Purple Sandpiper <i>Calidris maritima</i> .