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Sunderland Recreation Mitigation Strategy (to accompany the Allocations and Designations Plan)

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Summary

This report relates to recreation pressure on the Durham Coast Special Area of Conservation (SAC) and Northumbria Coast Special Protection Area (SPA) and Ramsar site and sets out a strategy for mitigation to address impacts resulting from new housing growth.

Sunderland City Council's Core Strategy and Development Plan ('CSDP', adopted in January 2020) and the Draft Allocations and Designations Plan form part of Local Plan for the City from 2015 to 2033.

The CSDP has been the subject of Habitats Regulations Assessment that concluded that increased residential development within 6km of the coastal European sites is likely to result in increased recreation pressure on the European sites. The HRA concluded that a dedicated strategy was required, in order to establish necessary measures to avoid or mitigate for the potential increase in recreation pressure. Further HRA work on the Draft Allocations and Designations Plan further supports the need for the mitigation.

Using the most recent visitor survey data we define a zone of influence of 7.2km, updating the 6km used in the CSDP HRA. Around 3456 new dwellings (that do not currently have planning consent and are allocated in the CSDP or the Draft A&D Plan) are anticipated to come forward within the plan period within 7.2km of the coast. Impacts from recreation on the European sites include: dog fouling, trampling/damage, spread of invasive species, inappropriate management, challenges to management, fires and barbeques, disturbance to wintering birds and disturbance to breeding birds.

A package of mitigation measures is set out that includes dedicated staff, awareness raising, education and interpretation, enhancement of existing greenspaces and monitoring.

New residential development (and other types of development as necessary) within 7.2km of the coast can contribute towards the above package, which will provide confidence that adverse effects on integrity (from recreation impacts) can be ruled out. Developer contributions will be collected through Section 106 agreements, which will be set at a per dwelling tariff of £557.14.

This Strategy accompanies the Draft Allocation and Designation Plan (A&D Plan) and is produced to aid developers to deliver their HRA requirements.

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Acknowledgements

Cover image of Sunderland Coastline © Ian Graham, Sunderland City Council.

1. Context and Background Information

Context

1.1 This report provides a technical analysis of recreation pressure on the Durham Coast Special Area of Conservation (SAC) and Northumbria Coast Special Protection Area (SPA) and Ramsar site and sets out a strategy for mitigation to address the impacts identified. It has been prepared by Footprint Ecology, commissioned by Sunderland City Council.

1.2 A Habitats Regulations Assessment (HRA) considers the implications of a plan or project for European wildlife sites, in terms of any possible harm to the habitats and species that form an interest feature of the European sites in close proximity to the proposed plan or project, which could occur as a result of the plan or project being put in place.

1.3 A Habitats Regulations Assessment HRA is the step by step process of ensuring that a plan or project being undertaken by, or permitted by a public body, will not adversely affect the ecological integrity of a European wildlife site. Where it is deemed that adverse effects cannot be ruled out, a plan or project must not proceed, unless exception tests are met. This is because European legislation, which is transposed into domestic legislation and policy, affords European sites the highest levels of protection in the hierarchy of sites designated to protect important features of the natural environment.

1.4 The relevant European legislation is the Habitats Directive 1992[1] and the Wild Birds Directive 2009[2], which are transposed into domestic legislation through the Conservation of Habitats and Species Regulations 2017, as amended. These Regulations are normally referred to as the 'Habitats Regulations.' As a public body, local planning authorities are identified as a 'competent authority' within the Habitats Regulations, and the requirement to assess the implications for European sites is applicable in situations where the competent authority is undertaking or implementing a plan or project, or authorising others to do so. Local planning authorities therefore have a duty to undertake HRA on plans and projects being produced by, or authorised by, the authority. This report has been commissioned in response to HRAs undertaken by Sunderland City Council on plans and projects where implications for the coastal European sites, arising

[1] Council Directive 92/43/EEC
[2] Council Directive 2009/147/EC

from increased recreation pressure associated with the plans and projects, has been raised.

1.5 A competent authority is responsible for ensuring that plans and projects do not result in adverse effects on the integrity of European sites in terms of the wildlife interest features. Where the potential for adverse effects are highlighted by HRAs, the competent authority must seek suitable solutions to prevent those adverse effects, or alternatively the plan or project cannot proceed unless there are exceptional reasons, detailed within the legislation, that would still allow the plan or project to proceed.

1.6 This report has been commissioned in recognition of the implications of additional housing growth for the Durham Coast SAC and Northumbria Coast SPA and Ramsar site in terms of additional recreation pressure at these coastal sites. This report secures the measures necessary to enable new growth whilst protecting the European sites from recreation impacts. It should be noted that the report solely relates to recreation impacts and does not address other issues which may relate to nearby housing growth, such as water quality or air quality issues.

1.7 The Durham Coast SAC and Northumbria Coast SPA and Ramsar site run along the Northumbria coastline and include the coastal areas of both Sunderland and South Tyneside administrative areas. This document sets out a mitigation strategy for Sunderland only, however there is considerable overlap in measures required, the need for those measures to be implemented in a co-ordinated way, and the opportunities for resource efficiency with a partnership approach between the two authorities.

1.8 The principle of a strategic mitigation approach for new housing growth is now established for a number of European sites around England, including coastal, heathland and woodland sites. The strategies are implemented by developing a suite of measures to manage access and therefore have confidence that adverse effects on the European site interest features are prevented. The measures are funded by new growth, with developers providing a per house contribution towards the measures, which are delivered by the local planning authority and often in partnership with a range of other relevant bodies. The approach is explained in more detail within this technical report.

The purpose of the technical information

1.9 This part of the report provides the technical analysis of measures that are needed to give certainty that the housing growth will not result in increased risks to the Durham Coast SAC and Northumbria Coast SPA and Ramsar site, to the extent that the ecological integrity of the sites, and their wider contribution to

the network of European sites, is not compromised. This should be taken to be that the maintenance of the sites into the long term is not adversely affected, and any restorative measures being undertaken or programmed to be undertaken, are not impeded. The technical requirements and justifications for the strategy are set out here, providing the evidence necessary to support HRA work and mitigation requirements.

1.10 A strategic approach to mitigating for cumulative recreation pressure arising from new growth is a means by which sustainable housing growth can be delivered, whilst adequately protecting European wildlife sites. By developing an strategy to resolve impacts at a plan wide level, there is a solution to the additional recreation pressure that can facilitate development and ensure impacts are addressed through an integrated suite of avoidance and mitigation measures that are supported by comprehensive evidence and experience gained from other European site mitigation strategies.

1.11 The 'precautionary principle' is an accepted principle that is embedded within the wording of the legislation, and latterly within case decisions, both European and domestic. Essentially, a competent authority should only give effect to a plan or authorise/undertake a project after having ascertained that it will not adversely affect the integrity of the European site. This means that in the absence of certainty, the plan or project should not normally proceed (subject to the further exceptional tests set out within the legislation).

1.12 A competent authority should therefore only allow plans or projects to proceed where there is certainty and should apply a precautionary approach where uncertainties remain. Competent authorities should have enough evidence to satisfy themselves that there are feasible measures to prevent adverse effects. These should be feasible in terms of cost, practical implementation, timeliness and attributing responsibility.

1.13 The European Court of Justice is an important source of relevant caselaw, often dealing with cases relating to the interpretation of the European Birds and Habitats Directives. Many of the rulings have defined key aspects of the assessment process, and those working as HRA and mitigation strategy practitioners need to continually check their understanding alongside new caselaw. HRAs and mitigation strategies are written with the principle of "*no reasonable scientific doubt,*" which was established in the '*Waddensee*' case (*C-127/02*).

1.14 The Judgment in April 2018 of the European Court of Justice – *People Over Wind & Sweetman v Coillte Teoranta (Case C-323/17)*, being referred to as the 'People Over Wind Ruling,' refers to the need for "*a full and precise analysis of the measures capable of avoiding or reducing any significant effects*" and "*complete, precise and*

definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects."

1.15 This strategy for the Durham Coast SAC and Northumbria Coast SPA and Ramsar site provides robust and comprehensive consideration of the avoidance and mitigation measures that will adequately prevent adverse effects on European sites in terms of recreation pressure. This strategy is therefore a solution to the legislative duties placed on Sunderland Council as the competent authority, and is an enabling strategy, unblocking potential HRA issues at the individual development project level where recreation pressure is difficult to mitigate for on a piecemeal basis because it relies on a suite of integrated activities.

1.16 It is within this context that a strategic approach should be developed. A strategic approach is built on the principle that by putting together a suite of interrelated measures, that work collectively to target key mitigation areas such as visitor education, dedicated staff, visitor infrastructure improvements or providing alternative locations for some aspects of recreation, a robust multi-layered strategy can give certainty in effectiveness. The multiple measures approach across these different themes also gives certainty that if a small number of measures do not work in the way in which they were intended, they will not critically alter the overall objective of preventing adverse effects, if identified and rectified early.

1.17 This technical report provides a suite of measures to avoid and mitigate for increased recreation pressure, drawing on a range of information, evidence and the views of key stakeholders, Natural England and the expertise of the Footprint Ecology team.

Understanding the European sites

1.18 European sites include Special Protection Areas (SPAs), which are classified for their bird populations of European interest, and Special Protection Areas (SACs), which are designated for habitats and species of European interest. The relevant European legislation is the Habitats Directive 1992[3] and the Wild Birds Directive 2009[4], which are transposed into domestic legislation through the Habitats Regulations. Ramsar sites are listed in accordance with an international commitment to the protection of wetland sites globally, through the Ramsar Convention. Ramsar sites can often overlap with SPAs and SACs in terms of their geographical extent and interest features. Ramsar sites are protected as a matter of Government policy within the National Planning Policy Framework in

[3] Council Directive 92/43/EEC
[4] Council Directive 2009/147/EC

the same way that European sites are protected and are therefore normally grouped together with SPAs and SACs under the term 'European sites.'

1.19 European sites are at risk if there are possible means by which any aspect of a plan 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 means by which the plan or project could potentially affect the European site.

1.20 Every European site has a set of 'interest features,' which are the ecological features for which the site is designated or classified, and the features for which Member States should ensure the site is maintained or, where necessary restored. Each European site has a set of 'conservation objectives' that set out the objectives for the site interest, i.e. what the site should be achieving in terms of restoring or maintaining the special ecological interest of European importance, and then additional supplementary advice published by Natural England as the statutory nature conservation body relates to the interpretation of the conservation objectives at each individual site.

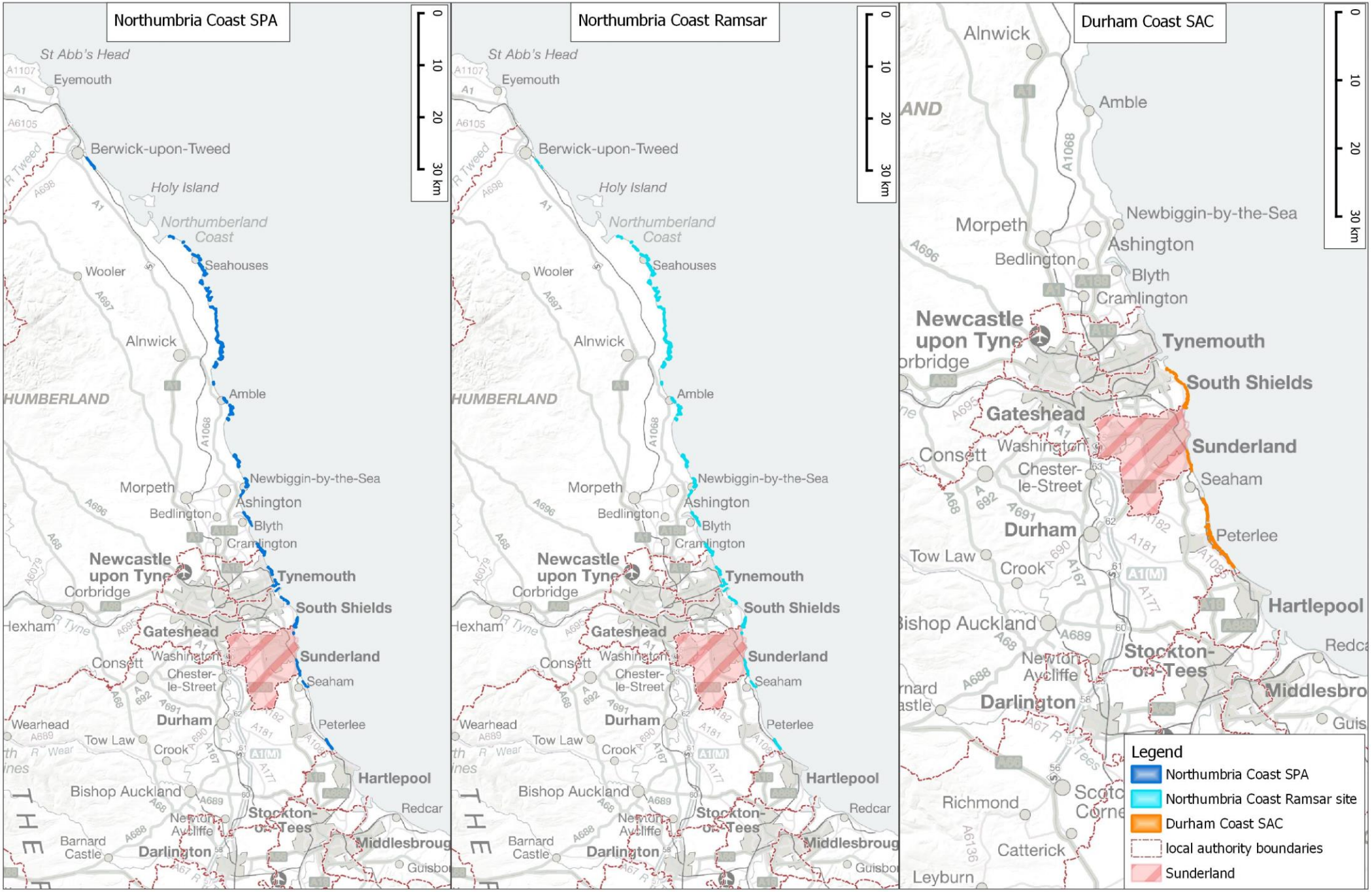
1.21 The Habitats Directive requires competent authorities to 'maintain and restore' European sites. Where sites are meeting their conservation objectives, the requirement is to maintain this position and not allow deterioration. Where a site requires restoration, competent authorities should work to bring site interest features back to a status that enables conservation objectives to be met.

1.22 Natural England produces Site Improvement Plans (SIPS) for each European site in England as part of a wider programme of work under the 'Improvement Programme for England's Natura 2000 sites.' Each plan includes a set of actions for alleviating issues that are impeding the delivery of conservation objectives, with lead delivery bodies identified and indicative timescales.

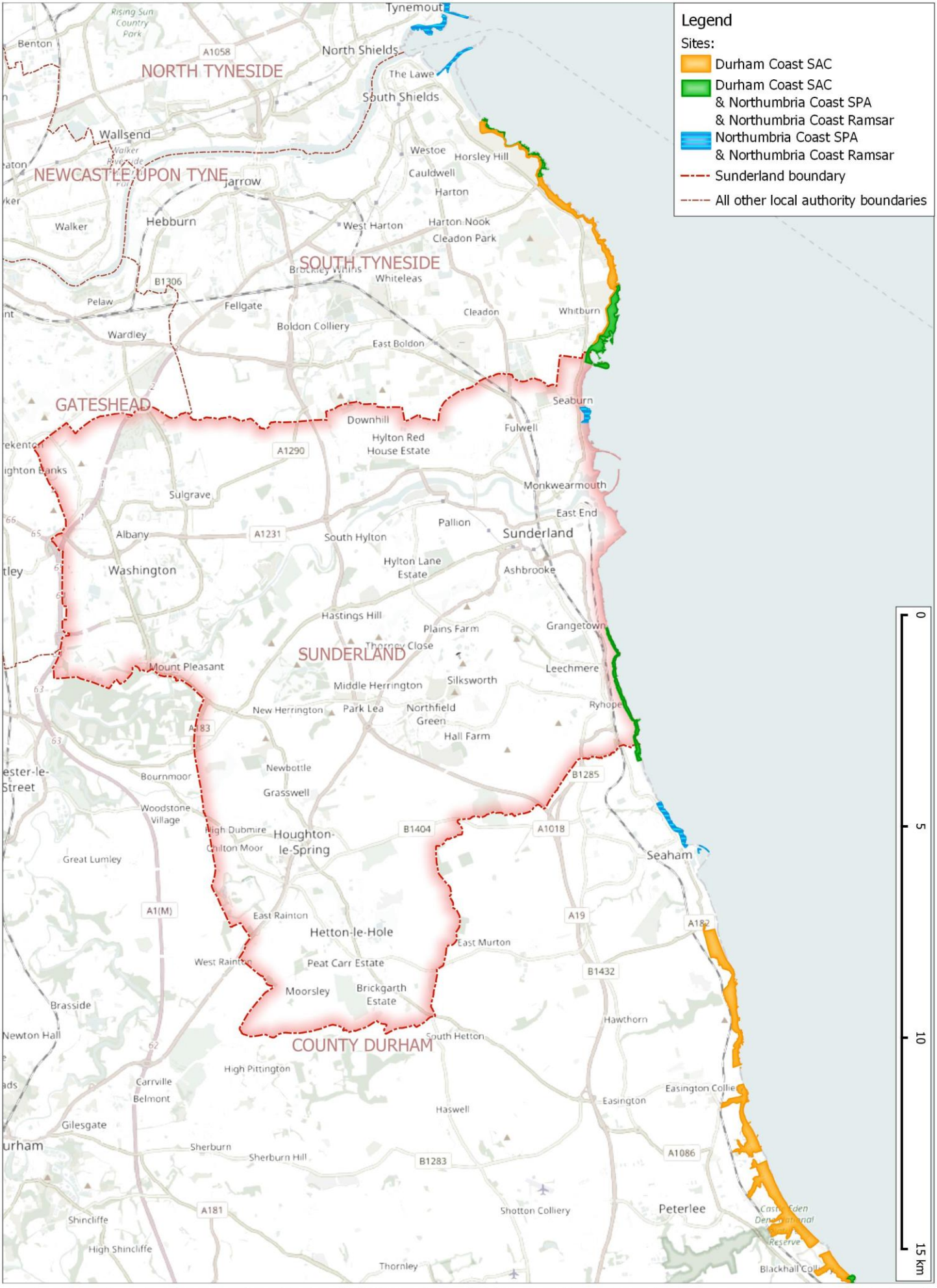
1.23 Map 1 shows the three European sites for which this mitigation approach has been developed. The three sites have significant overlap but are not entirely contiguous. Map 2 is focussed on Sunderland and the respective areas within each designated are shaded.

1.24 Recently published Government guidance on HRA within the Planning Practice Guidance advises that a HRA should catalogue the habitat types and species for which a site is protected, and it is therefore consistent that this should also be stated within a mitigation strategy associated with any HRA. The following sections provide information on the designated interest features of the three European sites.

Map 1: Location of the three European sites of interest within the context of Sunderland.



Map 2: Distribution of the three European sites of interest around Sunderland.



Durham Coast SAC

1.25 The Durham Coast SAC runs from South Shields down to Blackhall Rocks along a 20km stretch of coastline, as illustrated on Map 1. The citation for the site explains that this SAC protects the only example of vegetated sea cliffs on magnesian limestone exposures in the UK. The species rich vegetation community of the cliffs is therefore not found anywhere else in the UK and are reliant upon the combination of sea spray, coastal winds, calcareous flushes and the dynamic nature of the cliffs with slippage of the soft limestone bedrock and overlying glacial drifts.

1.26 The formal description of the qualifying habitat type, in accordance with Annex I of the Habitats Directive is 'vegetated sea cliffs of the Atlantic and Baltic coasts.' Whilst the site is designated for a single interest feature, it is important to note that the habitat type is a complex mosaic of grassland, fen, flushes and scrub. It is highly sensitive to impacts that change the conditions of the site, including nutrient enrichment and direct habitat damage.

1.27 The site-specific supplementary advice for the Durham Coast SAC has recently been finalised and published by Natural England in 2019. This highlights that in order to meet the conservation objectives, there should be no reduction in the extent, structure and function of the vegetated sea cliffs habitat feature; additionally, maintaining the range of characteristic vegetation types, which vary across the site due to aspect, soil, drainage and influence of coastal processes. This therefore flags potential risks in terms of vegetation loss, but also vegetation change as a result of indirect influences. Nutrient enrichment of vegetation and wet/flushed areas is also a significant risk.

1.28 Recreation can lead to erosion of soils, loss and damage to sensitive vegetation, and changes in vegetation diversity through nutrient enrichment from dog waste. Recreation can also exacerbate urbanisation impacts, which are those found when a European site is in very close proximity to an urban area. Urbanisation impacts including dumping of garden waste and setting fires, both of which are noted within the supplementary advice as potential issues for the site. A lack of knowledge in relation to the hydrology of some of the wetland areas is noted in the supplementary advice and new development could therefore inadvertently cause hydrological changes that are again exacerbated by additional recreation pressure.

1.29 Key current pressures and threats to the SAC set out in the SIP include natural changes to site conditions; inappropriate coastal management; invasive species; fertilizer use; illicit use by vehicles; changes to site conditions and public access/disturbance. The illicit vehicle use relates to the illegal use of motorbikes, quadbikes and 4x4s in specific areas along the coast, especially around soft cliffs

and dunes, causing erosion and damage to vegetation. Public access/disturbance is a pressure and the issue relates to dog fouling, which results in increased nutrient levels which can lead to a change in vegetation communities present.

1.30 Currently there is little information to assist with the assessment of impacts on the habitats of the SAC. Sunderland City and South Tyneside Councils have jointly commissioned a full survey of the SAC, which will provide further information on the distribution of different vegetation communities and will identify any particular issues affecting the SAC. This will be an important resource to inform this mitigation strategy in the future. At this point in time, the information available from Natural England indicates that issues are present but localised and could therefore be dealt with in specific locations.

Northumbria Coast SPA

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

1.32 The SPA qualifies for its breeding population of Little Tern *Sterna albifrons* and Arctic tern *Sterna paradisaea* and overwintering populations of Purple Sandpiper *Calidris maritima* and Turnstone *Arenaria interpres*.

1.33 Within the Northumbria Coast SPA, there is limited habitat for Little Terns to nest and the key location for the species is Beadnell Bay (Newton Links/Long Nanny) , which is a considerable distance to the north (approx. 62km) of South Tyneside. A further colony at Crimdon Dene to the south of the Northumbria Coast SPA forms part of the Little Tern interest for the Teesmouth and Cleveland Coast SPA, which continues along the coast to the south.

1.34 Consideration of the available habitat on the Sunderland City and South Tyneside Coast leads to a conclusion that Little Tern is unlikely to establish a nesting colony due to lack of open beach that has a low level of surrounding urbanisation and recreational use. There could be however options for habitat creation in the future, and scoping this with key land owners such as the National Trust could form part of this mitigation strategy.

1.35 The Northumbria Coast SPA is a marine European site and therefore has the benefit of a package of advice produced by Natural England. This is known as Regulation 33 advice, which is complementary to the supplementary advice published by Natural England for non-marine European sites. The Regulation 33 advice for the Northumbria Coast SPA highlights the importance of the habitats present within the SPA for the bird interest features. For Little Tern, as a breeding feature of the site the sandy beaches are critical. The breeding colony

is highly susceptible to disturbance and the colony may shift location. Nesting locations within the SPA are therefore restricted, and any area of the site providing historic or potential use should be safeguarded.

1.36 Artic Terns breed at Newton Links/Long Nanny along with the Little Terns. The Regulations 33 advice indicate the population has increased since classification and to 1,773 pairs (5 year peak mean 2013-2017).

1.37 Shallow inshore waters provide the foraging habitat for both species of tern. The overlapping Northumberland Marine SPA protects the surrounding waters that are used for foraging.

1.38 For the overwintering bird interest features of the SPA, the Regulations 33 advice lists rocky shores with associated boulder and cobble beaches as a key sub-feature supporting Purple Sandpiper and Turnstone. The rocky shores provide invertebrate food sources for both species. The advice states that the important bird populations require a naturally functional intertidal habitat for roosting, breeding and feeding. Artificial high tide roosts are also important for this SPA, and there are a number of known areas where birds roost in good numbers, including the River Tyne South Pier, in South Tyneside, for which the advice states should be deemed to be a sub-feature of the SPA.

1.39 Maintaining the extent and quality of sub-feature habitat is a key element of the conservation objectives for the site. Direct habitat loss can occur, but for the consideration of new growth impacts, it is the indirect effect of reduction in habitat quality as a result of disturbance, which is the primary concern.

1.40 Both the wintering waders are known to use other locations outside the SPA, and the use of these other areas by the SPA interest potentially means these other locations are functionally-linked.

Northumbria Coast Ramsar site

1.41 The Northumbria Coast Ramsar site is listed for the same interest features as the SPA, qualifying for its populations of international importance of Little Tern, Purple Sandpiper and Turnstone. The additional publications prepared by Natural England for the SPA, described above, are therefore also of similar relevance to the Ramsar site in terms of feature sensitivities.

Available ornithological data for the Northumbria Coast SPA/Ramsar site

1.42 The bird survey reports available for the Northumbria Coast SPA/Ramsar site include survey work commissioned by Natural England to inform SSSI condition assessment work, a formal and regular aspect of Natural England's role in overseeing the maintenance and restoration of designated sites. Condition

assessments are undertaken on a rolling programme for all SSSIs, and therefore provide useful evidence when considering the overlying European site designations. The survey work by Ecology Consulting on behalf of Natural England undertaken in 2015 - 2016 covers the coastline of Sunderland and South Tyneside and the presence of birds along the habitat sub features of the SPA.

1.43 Sunderland City Council and South Tyneside Council have worked together to gather ecological evidence to contribute to the evidence base for their Local Plans. This includes initial survey work of wintering birds within the SPA by Arcus, commissioned by Sunderland City Council and South Tyneside Council and undertaken in 2014 - 2015. This report provides bird survey information and also identifies any disturbance events witnessed by the surveyors. This was followed up by a second overwintering bird survey undertaken by BSG Ecology, which is the Coastal Sites Sunderland and South Tyneside 2015-2016 non-breeding bird survey. The surveys have since been continued by the Coast Project[5].

1.44 Additionally, as recommended by the Arcus survey, Sunderland City Council and South Tyneside Council recognised the need for extra survey work outside the designated site boundaries. Two bird surveys outside the SPA were specifically commissioned by Sunderland City Council and South Tyneside Council, again to inform HRAs of emerging local plans for both local planning authorities. The River Wear Sunderland and South Tyneside 2015-2016 non-breeding bird survey, prepared by BSG Ecology (Beamsley, 2016b, 2016a). incorporates the lower tidal reaches of the River Wear, surveying overwintering wader species to assess a potential functional link with the Northumbria Coast SPA/Ramsar site. Similarly, the Inland Sites Sunderland and South Tyneside 2015-2016 non-breeding bird survey, again prepared by BSG Ecology, looks at bird usage of inland areas as potential functionally linked land.

1.45 The two functionally linked land surveys focus on the over-wintering species for which the SPA is classified; Purple Sandpiper *Calidris maritima* and Turnstone *Arenaria interpres*, and also consider the presence of other wader species: Knot *Calidris canutus*, Redshank *Tringa totanus*, Curlew *Numenius arquata*, oystercatcher *Haematopus ostralegus*, Sanderling *Calidris alba*, Golden Plover *Pluvialis apricaria*, Ringed Plover *Charadrius hiaticula*, Dunlin *Calidris alpina*, Black-tailed Godwit *Limosa lapponica*, Snipe *Gallinago gallinago* and Lapwing *Vanellus vanellus.*

[5] Results are summarised in the 2019-20 annual report

2. The Policy Requirement

Local Plan Policy and the strategic approach to mitigation

Sunderland City and its Local Plan

2.1 Sunderland City Council has recently prepared its Core Strategy and Development Plan (CSDP), which forms part of Local Plan for the City from 2015 to 2033 (and was adopted in January 2020).

2.2 The CSDP will be accompanied by the Allocations and Designations Plan, which will set out the site allocations and land use designations to support and enable delivery of the policies within the CSDP.

2.3 The CSDP sets a strategic policy for growth as the first policy within the plan, Policy SP1 Spatial Strategy commits to the delivery of at least 13,410 new homes. The strategic sites policies within the CSDP identify the larger development sites, including the South Sunderland Growth Area, the Vaux and a number of Housing Growth Areas. Further allocations will be provided for within the forthcoming Allocations and Designations Plan to meet the remainder of the housing requirement. The Sunderland CSDP provides protection for European sites in Policy NE2, which sets out the requirements of the Habitats Regulations. The supporting text makes it clear (para 10.9) that mitigation measures may include the provision of Suitable Alternative Natural Greenspace (SANG) or Strategic Access Management and Monitoring (SAMM). In addition, the CSDP highlights in Policy NE4 that any impacts on greenspace from development will need to be considered in relation to the implications for European sites. The supporting text (para 10.29) clarifies that any impact to the quality and/or quantity of greenspace could have an indirect impact on European sites along the coast, by virtue of the potential to increase trips to the coast. This particularly affects sites within 6km of the coast (but could extent further) and further details will be provided in the forthcoming Allocations and Designations Plan HRA.

2.4 The CSDP has been the subject of Habitats Regulations Assessment (BSG Ecology, 2019). The HRA concluded that increased residential development within 6km of the coastal European sites is likely to result in increased recreation pressure on the European sites. The HRA gives particular focus to the Housing Growth Areas and other strategic site allocations set out within the plan, as being sources of increased recreation pressure in the future. It concluded that a dedicated strategy to establish necessary measures to avoid or mitigate for the potential increase in recreation pressure needs to be put in place. The HRA

recommendation is that a suite of on site and off-site access management measures are required to be implemented alongside housing growth coming forward, in order to mitigate for this potential increase in recreation pressure. Sunderland City Council has responded positively to the advice given by Natural England at the Examination of the CSDP, which highlighted the need to take forward a strategic mitigation strategy in accordance with the high level recommendations made within the plan level HRA.

2.5 Over recent years a number of housing sites have been given planning permission within the north and south Sunderland sub areas and further development sites are come forward within the emerging Allocations and Designations Plan, continuing the focus of new housing in these areas. HRA work has been undertaken by the Council to enable these sites to come forward and alongside the Allocations and Designations Plan. This mitigation strategy follows on from that previous work.

Coast - Sunderland

2.6 A combination of on and offsite measures have been funded by development in the Sunderland North and Sunderland South sub areas, which is now enabling a number of key mitigation measures to be delivered. The mitigation project is called COAST – Sunderland and to date it has achieved the establishment of a ranger in post and a range of engagement events, the creation of a dedicated website[6], and a range of surveys/monitoring work. Full details are provided in the annual report for 2019/20 (Graham, 2020).

2.7 The CSDP HRA report and Graham (2020) should be referred to for background information leading to the requirement for this Recreation Mitigation Strategy.

The South Tyneside Local Plan

2.8 While this strategy relates to Sunderland, it should be noted that HRA work for the South Tyneside Local Plan at the Issues and Options Stage (Hoskin, Liley, Panter, & Underhill-Day, 2018a) identified risks to the relevant European sites from recreation and an interim mitigation approach was established (Hoskin, Liley, Panter, & Underhill-Day, 2018b). This provides a mechanism for implementing a package of mitigation measures to avoid or mitigate for increased recreation pressure that would otherwise occur as a result of new growth. Using a zone of influence of 6km, it provides the process by which development over a wide area can contribute to measures that are implemented as part of the spatial planning and development management

[6] See the Coast – Sunderland website

functions of South Tyneside Council. The interim SPD has provided a mechanism that can be applied to enable sustainable housing growth to be delivered to meet need, whilst also protecting and maintaining the wildlife interest of the European sites into the long term.

2.9 In South Tyneside's Local Plan, Pre-Publication Draft, Policy NE2 sets out the requirements of the Habitats Regulations and also specifically states that any residential development within 6km of the Durham Coast Special Area of Conservation and Northumbria Coast Special Protection Area, as defined on the Policies Map, should have regard to the Interim Supplementary Planning Document 23: Mitigation Strategy for European Sites (Recreational Pressure).

2.10 The interim SPD (Hoskin et al., 2018b) applies to development proposals of 10 units or more. For these developments there is the option to provide contributions to a strategic approach to mitigation, managed by the Council. This delivers a package of measures that include a delivery officer, a dog project, greenspace enhancement, interpretation and signage, plus a review of car parking and monitoring of access. The tariff at £403 per dwelling, based on the anticipated number of dwellings still to come forward within the Plan period within the relevant area and the overall cost of the measures proposed. The interim strategy runs until 2023 at the latest.

3. The Evidence

Impacts of recreation and the European site interest

Recreation and disturbance to birds

3.1 Strategic work commissioned by Natural England reviewed all intertidal SPAs (with wintering waterbird interest) in order to identify which were particularly vulnerable to recreation impacts linked to local housing (Ross et al., 2014). Ross *et al.* used the extent of current housing and a range of other metrics including the amount of access along the shore (i.e. how much of the shoreline had public access), the area of intertidal habitats (and the area close to path networks), parking provision and substrate to rank sites. The approach was such that sites with high levels of housing, small areas of intertidal habitat, larger proportions of intertidal habitat close to footpaths, a high proportion of the shoreline with access and relatively firm substrates (i.e. such that the intertidal areas are easily accessible on foot) would be the most vulnerable. This led to sites such as the Wirral and Mersey Narrows, Benfleet and Southend and Portsmouth Harbour being ranked as vulnerable, and large, remote and more rural sites such as the Solway Firth being considered the least vulnerable.

3.2 Such an approach allows sites to be compared and highlights those where strategic approaches to mitigation are likely to be most relevant. In the ranking, the Northumbria Coast was not identified as especially vulnerable, appearing roughly half- way in the ranking. The Northumbria Coast was not ranked near the top as the level of housing surrounding the SPA, the number of car parks and the proportion of the shoreline with current access (i.e. paths/tracks etc) were relatively low. However, for the Sunderland part of the coastline there is a concentration of urbanisation, access and car parks.

3.3 The work by Ross *et al.* therefore indicates that the Northumbria Coast is perhaps of less concern regarding recreational disturbance compared to other sites. Ross *et al.*'s work was not intended to replace the need for HRA work, but rather to provide some context and background to help site specific HRAs. Any assessment must also consider the species involved, the scale (and distribution) of housing change and the proportion of the SPA potentially affected. The Northumbria Coast is in many ways quite different to the other SPAs considered in the review as it is very long and thin and is predominantly open coast rather than estuary. The Northumbria Coast SPA qualifies for two species of wintering waterbirds (as well as the terns), Turnstone and Purple Sandpiper, while most other intertidal sites are estuaries with a wide range of species associated with intertidal habitats.

3.4 Disturbance to wintering and passage waterfowl can result in:

- A reduction in the time spent feeding due to repeated flushing/increased vigilance (Bright, Reynolds, Innes, & Waas, 2003; Fitzpatrick & Bouchez, 1998; Stillman & Goss-Custard, 2002; Thomas, Kvitek, & Bretz, 2003; Yasué, 2005)
- Increased energetic costs (Nolet, Bevan, Klaassen, Langevoord, & Van der Heijden, 2002; Stock & Hofeditz, 1997)
- Avoidance of areas of otherwise suitable habitat, potentially using poorer quality feeding/roosting sites instead (N. H. K. Burton, Armitage, Musgrove, & Rehfisch, 2002; N. H. Burton, Rehfisch, & Clark, 2002; Cryer, Linley, Ward, Stratford, & Randerson, 1987; Gill, 1996)
- Increased stress (Regel & Putz, 1997; Thiel, Jenni-Eiermann, Palme, & Jenni, 2011; Walker, Dee Boersma, & Wingfield, 2006; Weimerskirch et al., 2002)

3.5 Disturbance has been identified by Natural England as a generic issue across many European Marine Sites (see Coyle & Wiggins, 2010), and can be an issue for a range of species. Disturbance can result from a range of different activities or events taking place on or around the shore. Activities on the intertidal or the water are more likely to result in a behavioural response from birds present, as are those involving dogs, particularly dogs off-lead (Liley & Fearnley, 2012; e.g. Liley, Stillman, & Fearnley, 2010). In the work across North-west estuary sites undertaken by Liley *et al.* (2017), dog walking was the cause of 77% of major flight events[7] 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.

3.6 Both Turnstone and Purple Sandpiper are associated with rocky habitats (and also sometimes areas of seaweed washed up on beaches), which potentially are less accessible to people, for example they can feed on rocky areas at the base of cliffs and utilise islands etc. that are not necessarily easily accessible to people. 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, Barimore, Holt, Read, & Austin, 2013). These declines appear to span relatively long time periods. A recent study on Turnstones on the Northumbria Coast (Whittingham et al., 2019) found that Turnstone density was higher, and the population declines less, in areas on or close to offshore refuges than on mainland sites subject to greater levels of human disturbance. The inference was that the refuges, which were off-shore

[7] 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.

3.7 Little Terns nest in colonies on open beaches, often in areas of open sand, often the areas also preferred by people. The eggs are laid directly onto the sand and colonies are vulnerable to predation and disturbance. Birds avoid otherwise suitable habitat where there are lots of people (Ratcliffe, Schmitt, Mayo, Tratalos, & Drewitt, 2008). Where they do nest, the instigation of proactive measures to minimise disturbance (wardening, signs and fencing) results in an increase in breeding success (Medeiros et al., 2007). While relevant to the SPA as a whole, given the lack of Little Tern colonies close to Sunderland, this pathway is not relevant to this mitigation strategy.

Recreation and vegetation damage

3.8 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 stablised 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.

3.9 Dog fouling is a widely recognised issue in low-nutrient semi-natural systems (Groome, Denton, & Smith, 2018; Taylor, Anderson, Taylor, Longden, & Fisher, 2005). The resulting increase in nitrogen and phosphorus changes vegetation communities, encouraging bulky competitive species at the expense of less vigorous species adapted to low-nutrient situations. A change from typical species to rank species-poor grassland communities is a common sight along and on the margins of paths and tracks and around many car parks.

3.10 Urination is also an issue. This can result in the loss of lower plant communities at spots that are repeatedly utilised, such as trees, rocks etc. Contamination may also result from persistent veterinary compounds that are transferred into the aquatic environment by dogs splashing through any water bodies, such as streams. These may include worming treatments and external parasite treatments (Denton & Groome, 2017; Groome et al., 2018).

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

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

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

3.14 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 & Tantram, 1999).

3.15 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

3.16 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 1: Impact pathways on interest 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.

Pathway	Interest feature	Relevant months	Source/evidence	Notes
Dog fouling	H1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts	All year	SIP; Lowen *et al.* (2008).	Excessive eutrophication leading to coarse species locally outcompeting characteristic species.
Trampling/damage	H1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts	All year	SIP; Lowen *et al.* (2008).	Damage from footfall and also motorbikes/illegal vehicles. Some cliff areas will be inaccessible.
Spread of invasive species	H1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts	All year	SIP, Thuiller *et al.* (2005); Wichmann *et al.* (2009)	There are already a number of garden plants that have become established. Risks from deliberate introductions and accidental spread on clothing/footwear/pets.
Inappropriate management	H1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts	All year	Whitehouse (2007); Lowen *et al.* (2008).	Risk of inappropriate interventions such as path surfacing, stabilising substrate, drainage etc. where demands for access.
Challenges to 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.
Fires and BBQs	H1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts	All year, but particularly growing season (around April- August)	Lowen *et al.* (2008).	Localised damage to vegetation and soil, e.g. from use of disposable BBQs.
Disturbance to wintering birds	Purple Sandpiper and Turnstone	September - March	Many, e.g. Ross et al. (2012); Stillman et al.	Impacts will vary according to weather, prey availability and prey distribution. Activities on

Pathway	Interest feature	Relevant months	Source/evidence	Notes
			(Stillman et al., 2012). Issue is cited in SIP but not for Purple Sandpiper.	the intertidal or around roost sites most relevant.
Disturbance to breeding birds	Little Tern and Arctic Tern	April-July	Medeiros et al. (2007); (Ratcliffe et al., 2008); SIP	Disturbance may result in otherwise suitable habitat being unused or reduced breeding success.

Recreational use of the coast and visitor survey data

3.17 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 (Panter & Caals in prep).

3.18 The 2019-20 surveys included 344 interviews from the spring 2019 (S. Tyneside only) and 1213 interviews along the S. Tyneside and Sunderland Coast (including just into Durham). Results were broadly in line with previous surveys and provide the best available evidence of recreation use of the coast. The main activity was dog walking (53% of interviewees in the winter) and dog walkers were recorded with up to 11 dogs. Three-quarters (75%) of dog walkers interviewed indicated they let their dog off-lead on the beach.

3.19 At virtually all the 2019—20 survey locations, at least 50% of interviewees visited at least a couple of times a week, indicating frequent use. Around 27% of the interviewees from the winter 2019-20 survey stated they might use a suitable area of green space instead of the coast if it was closer to home. This would suggest that alternative greenspace should not be relied on as a sole mitigation approach as the coast clearly has a particular draw.

3.20 The majority of interviewees (70%) drove to the site where they were interviewed, with around a quarter (25%) walking. Interviewees were relatively local, with 75% of interviewees from the 2019-20 pooled data living within 7.2km of the coast. This figure, based on the most recent data, updates the 6km figure from the CSDP HRA and previous versions of this strategy and represents the zone of influence for this strategy. It is shown in Map 3.

3.21 There is little information on overall visitor numbers. Exeter University's ORVaL tool (Day & Smith, 2018), which is based on models developed at a national scale rather than actual data collected in the field, estimates that residents of Sunderland make 16,104,120 visits to green spaces per year. The models estimate around 2,385,224 visits per annum to the coastal European sites within Sunderland.

Natural England's advice

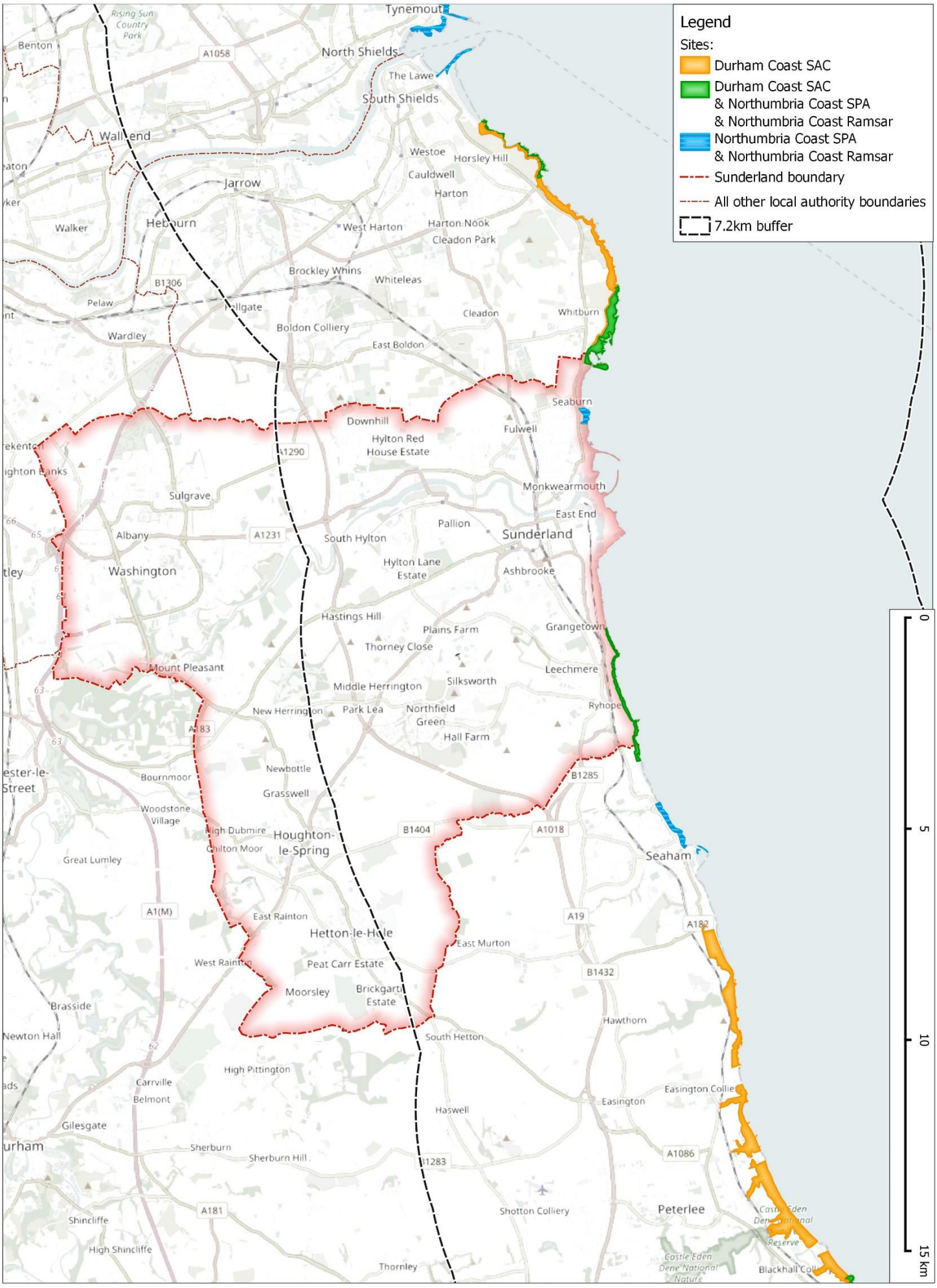
3.22 Natural England is the statutory and technical advisor on HRA matters for plans and projects with a potential impact on European sites. The Council must have regard for Natural England's advice.

3.23 Natural England has advised on the need for mitigation to prevent adverse effects on the Durham Coast SAC and Northumbria Coast SPA and Ramsar site and has consistently supported the Council's HRA work to develop a strategic approach to managing recreation pressure.

The Stakeholder Workshop

3.24 During the development of the suite of mitigation measures set out in this report, both Sunderland and South Tyneside Councils and Footprint Ecology ran a stakeholder workshop in October 2019 to allow stakeholders to provide input to the mitigation strategy. This event was attended by a range of statutory and non-statutory bodies, Council Members, staff, other competent authorities and landowners. The workshop discussions led to the development of the mitigation measures set out in later sections and the key findings are summarised in Appendix 2.

Map 3: Extent of a 7.2km buffer applied to the three European sites of interest.



4. The Mitigation Measures to be Funded

Mitigation approaches in other parts of the UK

4.1 In other parts of the UK, strategic approaches to mitigation have been established where multiple local authorities have worked together to establish a series of avoidance and mitigation measures carefully designed to resolve the in-combination impacts associated with local development and recreation impacts. Examples include the Thames Basin Heaths, the Dorset Heaths, the Solent, Epping Forest, the Essex Coast, South-east Devon, North Kent, Bradford and Cannock Chase.

4.2 A suite of mitigation measures should function together to have confidence that adverse effects arising from recreation have been prevented. In most instances when developing a strategy for development, each measure taken alone is unlikely to give that certainty. A combination of measures, developed and targeted after analysis of available information, gives greater certainty. This is because the combination of measures working together reduces risk and builds in contingency for amending the strategy if some measures do not perform as well once implemented. Other measures can still be functioning in the short term whilst some are revised. An integrated suite of measures delivered together also improves efficiency, which in turn adds to effectiveness with improved value for money.

4.3 Rangers and SANGs are common themes in strategic mitigation for European sites, and all schemes also include monitoring to target and hone interventions. Other measures within these schemes have included dog projects, interpretation, changes to infrastructure, codes of conduct and various engagement approaches.

4.4 Many of these interventions are widespread and commonly used and there are a range of studies that support their effectiveness (e.g. Allinson, 2018; Burger & Leonard, 2000; Medeiros et al., 2007; Williams et al., 2017), however there is little experimental work or similar to explicitly test or compare how well different interventions work.

4.5 The Bird Aware Solent Project[8] delivers the mitigation for the Solent Coast and they have established branding and communication guidelines, which have since been adopted in other parts of the country, for example on the Essex Coast[9]. As such the other mitigation projects provide context and ideas. Some, such as the

[8] See Bird Aware Solent website
[9] See Bird Aware Essex website

Dorset Heaths and the Thames Basin Heaths have been running for many years and are long established. The different mitigation teams meet up annually to share ideas, resources and information.

4.6 Many of the measures bring wider benefits besides simply providing mitigation. Enhancing access, providing better connections between local people and their environment, providing education resources and providing new green infrastructure all have wide benefits for society and potential economic benefits.

Mitigation for the Northumbria Coast

4.7 The mitigation strategy is a suite of measures to be reviewed and updated over time. The measures have been developed using discussions with the relevant local authorities, Natural England and other stakeholders at the mitigation strategy workshop and the experience and expert opinions of the Footprint Ecology team assisting the Council. Many of the measures are successfully used around the country, but the package has been chosen based on the local circumstances and needs for the Durham Coast SAC and Northumbria Coast SPA and Ramsar site and the scale of growth in the nearby local authorities.

4.8 The mitigation package includes:

- Dedicated staff;
- Awareness raising, education and interpretation;
- Enhancement of existing greenspaces
- Monitoring.

4.9 These work together and it is the package as a whole that will be effective. Each is considered in more detail below.

Dedicated staff

4.10 Dedicated staff to deliver a strategic mitigation scheme are essential. Their recruitment should be prioritised over the delivery of other measures, because they are fundamental to the effective delivery of those measures, a coastal project officer is the minimum requirement to project manage the strategy delivery, oversee the work and provide the main contact. The project officer would work alongside ranger/engagement staff who would provide the face-face engagement.

4.11 The presence of rangers/engagement staff along with the range of other measures has continually been shown to be effective in ensuring the successful delivery of such strategies elsewhere and a gradual positive change in visitor behaviour. We have costed for a single ranger/engagement post and this will complement a similar costed post in South Tyneside, providing coverage along

the coast. The post will need to deliver mitigation through their promotion of positive visitor behaviours. This will require being out on the coast, talking to visitors. Essential skills will therefore be their engagement skills with people. There will be a requirement to work unsociable hours and to potentially have some enforcement role, for example with regards illicit vehicle use.

4.12 A mobile ranger team is a feature of other mitigation schemes such as the Solent, the South-Devon sites, the Thames Basin Heaths and the Dorset Heaths. In these examples the rangers form a mobile team that spend the majority of their time outside, talking to visitors, influencing how visitors behave and showing people wildlife. The advantage of such an approach is that the staff can focus their time at particular sites/locations as required. This means that as particular projects are set up, as development comes forward, or if access issues become a concern at a particular location, the staff can be present and target their time accordingly. Monitoring data can help inform the ranger effort and ensure their work is directly linked to where development comes forward and where there are issues. This then leaves the delivery officer to focus on overseeing the mitigation strategy and management of specific mitigation projects.

Awareness raising, education and interpretation

4.13 Changing visitor perceptions of the coast as a convenient greenspace space to an understanding that it is an internationally important wildlife asset that needs sustainable management will require a long-term approach and a range of material.

4.14 This workstream includes a range of education, information provision and awareness raising options and these will be developed by the staff, utilising an allocated budget. The project as a whole needs to be supported by a strong website presence, potentially building on the existing coast website. In addition, communication through social media will ensure visitors can access information about the mitigation package, the work being undertaken and be made aware of particular initiatives. Use of social media will help extend the reach of the project within the community and help provide links to the wider conservation community in the area.

4.15 Social media/website promotion could potentially include information on events, natural history and wildlife sensitivity, where to park, where and how to see wildlife without causing disturbance, and the promotion of alternative recreation sites. Mitigation budget has also been allocated for school education resources, providing the potential for the rangers to work with local schools and extend the reach into the community. Work with schools could involve leading school visits to the coast or the rangers visiting schools. Focus should be on local schools.

4.16 The mitigation package includes funding for an audit of current provision and the design of new interpretation boards. Signs direct people or inform them of how they should behave whereas interpretation provides information about the place being visited. Careful thought on how signage and interpretation can be most effective in these areas is required. The audit will also need to consider existing branding and the different signage requirements of different areas.

Enhancement of existing greenspaces

4.17 Suitable Alternative Natural Greenspaces (SANGs) is the term given to greenspaces that are created or enhanced with the specific purpose of absorbing recreation pressure that would otherwise occur at sites designated as European wildlife sites. SANGs are created, or existing greenspaces enhanced to create a SANG, in order to mitigate for the effects of new housing development, absorbing the level of additional recreation pressure associated with the new development.

4.18 Larger and strategic housing allocations have greater potential to provide a quantum of suitable green space within the development that can accommodate a good level of on-site recreational activity. Given the Sunderland context, viability and the way in which new housing is likely to be delivered, there will be relatively few opportunities where large scale development can deliver SANGs of a suitably large size and wild feel to draw people from the coast. Land availability will be a constraint on the provision of any strategic SANGs (i.e. sites SANGs providing mitigation for multiple small developments). It is therefore proposed that, with the exception of any larger sites/urban extension sites coming forward in the future through the new site allocations, the mitigation strategy should focus on maximising opportunities for enhancing the capacity and recreation experience at existing greenspace sites.

4.19 This part of the mitigation measures has been costed for with an initial budget, which should be developed by the Coastal Project Officer into a programme of site enhancements after further work to review which existing greenspace sites offer or have the potential to draw visits from local residents who might otherwise visit the coast. The review should consider how improvements might work to increase visitor numbers and capacity away from the coast, for example linking greenspaces, adding parking or making spaces more attractive to visit. The review should consider existing nature conservation interest and any other constraints and derive a prioritised list of works.

4.20 Greenspace sites are shown in Map 4. These have been plotted using the Open Greenspace data from Ordnance Survey, and these have been filtered just to show public parks and gardens. It can be seen that there are a range of large sites with existing public access and therefore a range of options to draw

recreation from the European sites. The budget allocated will enable the attraction of and capacity within these sites to be enhanced. It will be important for the staff to refine this mitigation measure in terms of its scope and which sites should be focused on. Given the particular draw of being by the sea, alternative greenspace will need to be carefully targeted, potentially for certain activities such as dog walking. Any greenspace provision will need to also link closely to the other measures – for example with greenspaces promoted on the website.

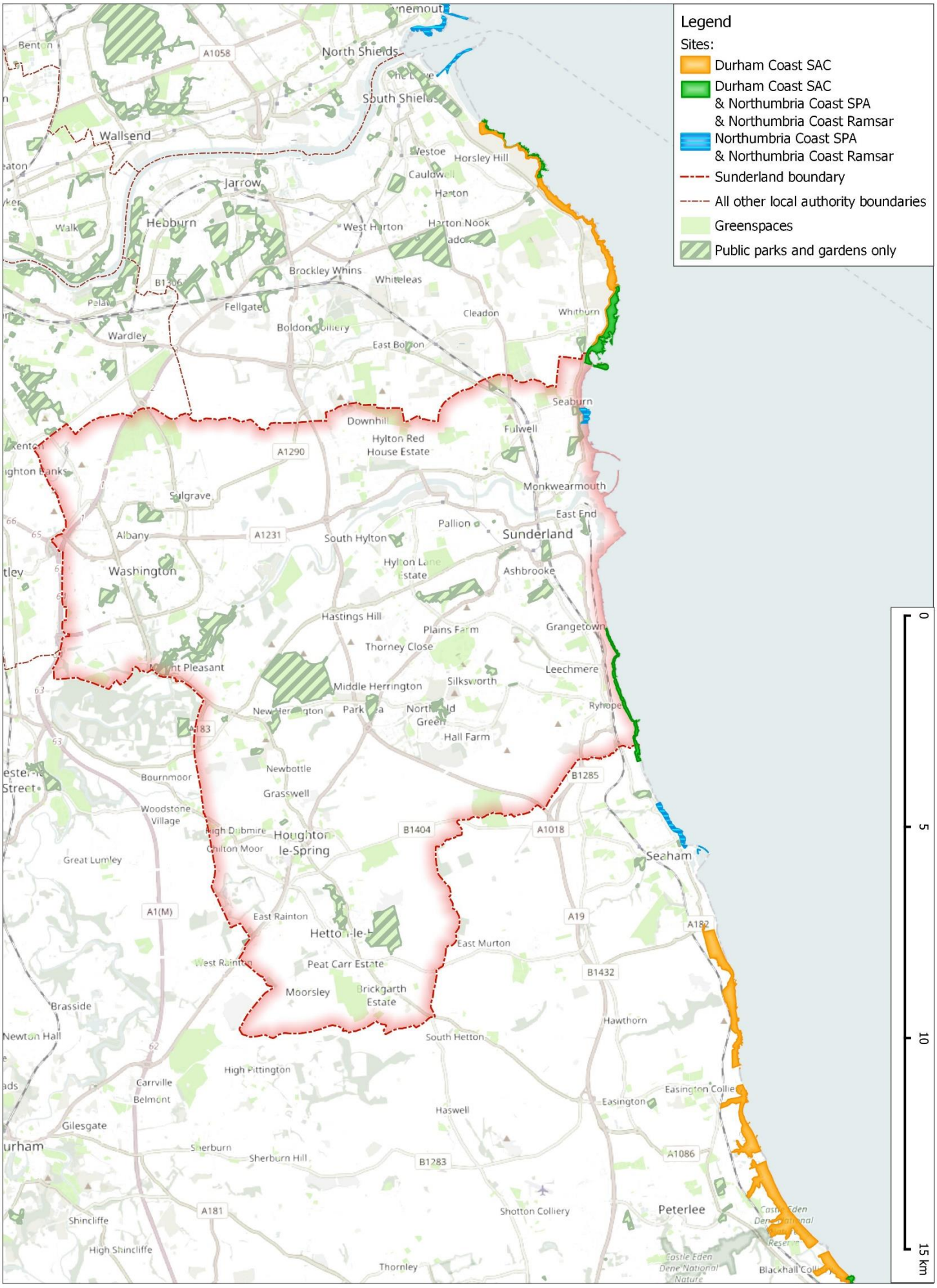
Monitoring

4.21 Critical to the success of a strategic mitigation strategy is its monitoring. The dedicated staff will be responsible for monitoring delivery over time, and monitoring will include the following:

- Effective delivery of measures;
- Timely delivery of measures in alignment with housing growth coming forward;
- Checking that mitigation delivery aligns with any peak locations for housing coming forward at any given time;
- Visitor monitoring and ecological monitoring (undertaken with consultancy support) to check whether measures are effective and what additional measures may be needed over time.

4.22 These will inform the review of the strategy, which could include light touch reviews on an annual basis and more significant reviews at key points in time, which may be best aligned to the Local Development Scheme.

Map 4: Greenspace sites in and around Sunderland.



Explanation of costs

4.23 Table 3 provides the list of mitigation measures that collectively make up the mitigation strategy. These measures have been developed with regard for the factors described above. The package of measures will be reviewed each time the strategy is reviewed. The table includes cost estimates which are indicative, drawn primarily from other mitigation strategies, discussion between the Council and the HRA consultants, and the collective experience of the costs of different works. The costs are broad estimates and allow a per dwelling cost to be identified that will ensure appropriate levels of mitigation are possible.

4.24 The costs table works at this level to identify an overall budget and level of funding that will deliver mitigation. It is important to recognise that priorities are likely to change over time and unforeseen opportunities may arise. For example, storms may reshape the beaches in particular areas, leading to changes in bird use or access patterns may change, for example with different activities becoming popular. As such, there should be scope for the budget to be flexible and adjusted annually in order to maximise the effectiveness of the mitigation and to target resources efficiently. Furthermore, the amount of new development coming forward may not be as expected, either in the short-term or longer term. The monitoring results will be important to help prioritise the implementation, to match the level of growth and ensure the measures are appropriately targeted.

4.25 The guidance will be reviewed to ensure that it is up to date in terms of current evidence, housing figures and progression of the strategy. There is the opportunity to refine the measures based on how implementation progresses. A first priority is to secure the coastal project officer in place, as this is a key member of staff to then progress with the other practical measures. The appointment of ranger staff should shortly follow.

4.26 It is common practice to include staff costs for 20 years, to allow some extension into a new plan period, with a view to this being reviewed and extended in future plan periods. It is also common practice to include a 10% contingency factor, to allow for unforeseen changes to costings and requirements. Both of these are factored into the mitigation costings.

Table 2: Estimated costs of proposed mitigation measures.

	Measure	Further detail	Capital/ one-off Cost	Annual Cost	No. years to budget for annual cost	Total Cost	Notes on how cost calculated
Staff	Coastal Project Officer (full time)	Role to cover wider liaison, awareness raising, implementation etc.		£46,850	20	£937,000	Estimated at £31,000 annual salary, plus 35% (to cover NI, superannuation, etc.) and £5000 per annum support costs .
	Engagement officer/ranger (part time)	Role to cover face-face engagement, enforcement, on-site presence. Potential to expand to additional posts as necessary if more housing.		£18,350	20	£367,000	Costs per ranger would be: £22,000 annual salary, plus 35% (to cover NI, superannuation, etc.) and in addition vehicle costs and other support costs (£7000 per annum). Assumed part time, half full time post equivalent
Signs & Interpretation	Audit of current provision	Audit to check existing signs, identify gaps and key locations for new provision. Undertaken by Project Officer/ranger.	£2,000			£2,000	Undertaken by ranger/project officer, small budget to cover costs of report production
	Graphic design for new interpretation and signs	Following initial audit	£8,000			£8,000	£8,000 for design of new interpretation and messaging relating to highlighting nature conservation importance, bird disturbance, dog fouling etc.
	New interpretation boards	New boards will raise awareness and provide information for visitors	£20,000			£20,000	£2,000 per board for production of timber frame and graphic panel, delivery and installation. Estimate of 10 boards. Costs allowed for 1x replacement, therefore 20 total
	New Signs, waymarking etc.	Way-marking will help direct people away from sensitive areas	£28,000			£28,000	Cost based on 25 posts at £300 per post to cover production, delivery and

	Measure	Further detail	Capital/ one-off Cost	Annual Cost	No. years to budget for annual cost	Total Cost	Notes on how cost calculated
							installation. Treated softwood marker posts, 1.6m high with slanting top and coloured band or marking incorporated. Costs allowed for 1x replacement, therefore 50 total. Additional £500 for waymarking discs or signs made of glass reinforced plastic for longevity.
Education & awareness raising	Dog Project	Awareness raising work focussed at local dog walkers, highlighting sensitivities, where to walk etc.	£26,500	£2,500	20	£76,500	Website design estimated at £10,000 with a further £10k during the plan period for update/refresh and new material and £5,000 for specialist consultant support. Capital costs also include £1,500 to cover initial purchase of gazebo, merchandise etc, plus annual costs to help with specialist/consultants at events etc. (Delivery officer time required too).
	Development of education material for schools	Printed material to help ranger/project officer with school visits	£5,000			£5,000	Estimate for resources to support educational work with community, design and printing, consultancy input working with rangers.
	Social media and website	Simple website with information for visitors, gazeteer on where to go	£12,000	£300	20	£18,000	Costs to cover design and annual fee for updates, hosting etc.
Infr ast	Review of existing greenspaces near to European sites	Review to check existing and potential greenspace sites that	£10,000			£10,000	Review to identify potential sites and identify potential improvements

	Measure	Further detail	Capital/ one-off Cost	Annual Cost	No. years to budget for annual cost	Total Cost	Notes on how cost calculated
		could absorb recreational use and identify scope for improvement					
	Enhancement of local greenspace	Funds to implement recommendations from review	£200,000			£200,000	Flexible budget to be targeted as informed by review of existing greenspaces
	Path improvements	On-site improvements to help direct visitors and keep visitors to paths		£8,750	20	£175,000	Based on £35m^2 for path surfacing: budget would allow for 0.25km of path works per annum.
	Fencing	Temporary fencing as required around tern breeding areas		£1,000	20	£20,000	Breeding sites are fenced already and none locally. Areas used may change over time and funding to provide resources as required.
	New habitat creation/modification	Potential to create artificial wader roosts in disturbance free locations and scope to reprofile beaches in certain locations to provide nesting habitat in disturbance/flooding free areas		£5,000	20	£100,000	Notional sum as annual figure - depends on works required but will provide budget that can build over time.
	Dog bins	Additional bins to minimise impacts of fouling and encourage responsible dog walking. Locations identified by ranger/project officer	£2,400	£1,600	20	£34,400	£600 per bin initial cost, for timber fronted dual waste bin; £400 per bin per year to empty. 4 bins
Parking & Travel	Review of parking		£10,000			£10,000	One-off cost for consultancy report, all car parks on SPA visited, plus other greenspace nearby. All parking mapped and assessed and strategic review to consider potential changes and options for charging

	Measure	Further detail	Capital/ one-off Cost	Annual Cost	No. years to budget for annual cost	Total Cost	Notes on how cost calculated
	Parking improvements/modifications		£100,000			£100,000	Potential for costs to be used in conjunction with revenue collected for parking charges; £100,000 would be the equivalent of 1 new car parks with around 25 spaces. Costs anticipated to be spread more widely for more minor changes across more car parks.
Monitoring	Visitor interviews	Face-face interviews would give home postcodes, routes walked, awareness and motivations for visiting. Will inform mitigation work. Initial survey early on to inform potential greenspace for improvements	£40,000			£40,000	Estimated cost for face-face interviews with visitors at stratified sample of locations across relevant European sites £20,000. Budget allows for repeat survey.
	Visitor numbers and activities	Regular monitoring to identify the spatial use of different areas and monitor change		£15,000	10	£150,000	Biannual monitoring involving repeated transects/ car park counts and other counts done by consultant (potential to also use wardens/volunteers)
	Recording implementation of mitigation					£0	no cost as undertaken as part of core work by delivery officer
	Levels of new development					£0	no cost as undertaken as part of core work by delivery officer/LPAs
	Ecological	Bird disturbance monitoring and trampling damage/dog fouling within SAC		£5,000	20	£100,000	Annual sum available for targeted monitoring/match funding as required. Potential for ranger time as additional support.

	Measure	Further detail	Capital/ one-off Cost	Annual Cost	No. years to budget for annual cost	Total Cost	Notes on how cost calculated
	Total					**£2,640,990**	
	10% Contingency					**£240,090**	
	Total inc.contingency					**£2,640,990**	

5. Implementation

5.1 This section considers the practicalities of this guidance, how it will be administered and run.

Zone of Influence and likely housing growth

5.2 This strategy relates to a 7.2km zone of influence (see Map 3). Within this zone increases in residential properties will trigger likely significant effects, in combination, and mitigation will be necessary.

5.3 The amount of housing in Sunderland that could come forward within 7.2km of the European sites are summarised in Table 3. These housing numbers are based on site allocations within the CSDP and the Draft Allocations and Designations Plan and include an allowance for windfall. It is likely that, for some sites, build out over long periods will extend beyond the end date of the Plan and the small sites/windfall are estimated only[10]; as such the numbers in Table 3 are a guide only. They provide a snapshot of the potential growth and an indication of total dwellings that can be used to calculate the per dwelling contribution.

5.4 From Table 3 it can be seen that mitigation will be required for around 3456 dwellings.

[10] The Council has made an allowance for 50 dwellings per annum within the plan, the strategy therefore estimates around 30 might be expected within 7.2km.

Table 3: Summary of potential new dwellings likely to come forward within 7.2km of the Durham Coast SAC and Northumbria Coast SPA and Ramsar site development. Totals based on allocations within the CSDP and the A&D Plan that do not have planning consent (as of November 2020).

	Number of dwellings
Houses allocated under Policy H8 of A&D Plan	2016
Housing allocated through Riverside Sunderland allocation	1000
CSDP: Housing Growth Areas	80
Small sites (30 per annum over 12 years from 2021)	30
Total	**3456**

Implementation across Sunderland and South Tyneside

5.5 This strategy relates to Sunderland yet the mitigation overlaps with South Tyneside. There is a complementary strategy approach for South Tyneside (see Hoskin et al., 2018b), and while both are independent, separate strategies there is potential for a single, more coherent approach to develop overtime, spanning both authorities. This is likely to provide opportunities to reduce costs and therefore change the per dwelling tariff.

Tariff

5.6 There are 3456 houses anticipated to come forward at this point in time and an overall budget for mitigation measures of £2,640,990.

5.7 To date, £890,565.70 has been collected or is committed as mitigation revenue from dwellings already granted planning permission, this total reflecting funds that can contribute towards the mitigation in this strategy[11], thereby reducing the overall budget to £1,750,424.30.

5.8 This gives a per dwelling cost of £506.49, with a further 10% cost to cover administration and management, this would give a per dwelling cost of £557.14.

5.9 It should be noted that the costs table does not include any adjustments for inflation or any discounting. It is also important to note that the number of dwellings used to calculate the tariff is a snapshot, allowing a per dwelling figure

[11] Note that a comprehensive set of mitigation measures were agreed as part of some of those developments and the £890,565.70 includes the remaining budget that can contribute towards this strategy rather than the total amount of mitigation revenue secured.

to be derived. The actual level of growth could of course vary, with windfall levels in particular being hard to predict. Relatively small variations in growth will make little difference and the mitigation delivery/implementation is flexible such that measures can be slowed or increased to reflect the growth actually coming forward. The tariff will need to be subject to review at regular intervals, and is likely to vary in time to accommodate further refinement to reflect any changes in the numbers of houses coming forward.

Which developments are required to make a payment?

5.10 This guidance applies to any development granted planning permission by the Council that results in a net increase in residential units (i.e. C3 Use Class), located within 7.2km of the Durham Coast SAC or the Northumbria Coast SPA/Ramsar site.

5.11 While the guidance is focussed towards C3 Use Class, there are other uses and forms of development that may have different impacts on the coastal European sites. Examples of other uses are listed below and will need to be assessed on a case-by-case basis:

- Houses in Multiple Occupation (sui generis);
- Residential institutions within the C2 Use Class where the residents are not severely restricted by illness or mobility;
- Student accommodation;
- Sites for gypsy, travellers and travelling showpeople;
- Self-catering, caravan and touring holiday accommodation.

5.12 For the above types of development, this guidance provides a means of ensuring effective mitigation can be delivered. While in general each unit for the above could be considered a single dwelling, there may be a need to adjust the rate of contribution for different types, for example according to occupancy rates for tourist accommodation.

5.13 This strategy is intended to set out an approach to enable development through the implementation of measures to rule out adverse effects on integrity for the relevant European sites. The option remains for individual developers to provide suitable mitigation through a different approach and to provide detailed evidence to support the measures proposed.

Legal mechanism to secure developer contributions

5.14 A planning obligation under Section 106 of the Town and Country Planning Act (1990) will provide the legal mechanism for the tariff collection. The S106 will set out trigger point(s) for payment.

5.15 The S106 will need to include:

- The per house tariff – to be paid upon commencement of development[12], no dwellings shall be occupied until the tariff is paid.
- An administration fee – to be paid within 28 days of signing the Unilateral Undertaking.
- A monitoring fee – to be paid within 28 days of signing the Unilateral Undertaking.

Governance

5.16 A mitigation approach needs to be implemented within a governance structure that will ensure its success. How a strategy is implemented in terms of its prioritisation and apportionment of time to activities, management of funds, resolution of issues and response to changing circumstances and opportunities is dependent upon a governance structure being in place. It is recommended that a small number of external partners are drawn together to have some oversight of the strategy delivery over time. This adds transparency and ensures that the funding is being targeted appropriately and delivering effective mitigation. The oversight group need not be involved in daily work of the mitigation strategy team, but rather it could possibly meet on a quarterly or bi-annual basis to enable the team to report on the progress and give external input to key decisions and review of the strategy over time. This would include priorities for new measures and confirmation of any changes in budget and finances. As such there is the potential for the strategy to be flexible in how finances are targeted in response to monitoring results, levels of housing growth etc.

Staff hosting and delivery oversight

5.17 The Sunderland – COAST Project is already well established, with its own branding and local identity. The natural expansion of the project will be the most effective way to deliver future mitigation.

[12] Commencement of development is defined by Section 56 of the Town and Country Planning Act 1990 as the earliest date on which a material operation is carried out. This includes any works of construction, demolition, digging foundations, laying out or constructing a road and a material change in the use of the land.

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Appendix 1 – The Nature Conservation Interest of the European Sites

The relevant European sites are summarised in the table below. Hyperlinks cross reference with the relevant page on the Natural England website (designated sites), with links to the relevant citation, conservation objectives and other information. Descriptions are drawn from the relevant site improvement plan or, in the case of Ramsar sites, the overview on the Ramsar information sheet. Threats/pressures are drawn from the relevant site improvement plan and are listed in priority order. The site improvement plans only relate to SPA and SAC sites and for the Northumbria Coast SPA the relevant site improvement plan also includes a number of other adjacent or overlapping sites and interest features. The threats and pressures listed are therefore just those that relate to the interest features.

European site	Interest features	Description	Threats/pressures
Durham Coast SAC	H1230 Vegetated sea cliffs of the Atlantic and Baltic coasts	Durham Coast SAC is the only example of vegetated sea cliffs on magnesian limestone exposures in the UK. These cliffs extend along the North Sea coast for over 20 km from South Shields southwards to Blackhall Rocks. Their vegetation is unique in the British Isles and consists of a complex mosaic of paramaritime, mesotrophic and calcicolous grasslands, tall-herb fen, seepage flushes and wind-pruned scrub. Within these habitats rare species of contrasting phytogeographic distributions often grow together forming unusual and species-rich communities of high scientific interest. The communities present on the sea cliffs are largely maintained by natural processes including exposure to sea spray, erosion and slippage of the soft magnesian limestone bedrock and overlying glacial drifts, as well as localised flushing by calcareous water.	Natural changes to site conditions Inappropriate coastal management Invasive species Fertilizer use Vehicles: Illicit Change to site condition Public access/disturbance
Northumbria Coast SPA	Breeding: Arctic Tern Sterna paradisaea Little Tern Sterna albifrons Non-breeding Purple Sandpiper Calidris maritima Turnstone Arenaria interpres	The Northumberland Coast SPA supports internationally important populations of over-wintering purple sandpiper and turnstone, and a breeding colony of little tern at Beadnell Bay.	Public access/disturbance Invasive species Change in species distributions Predation Coastal Squeeze Direct impact from a third party Change in land management

			Fisheries: commercial marine and estuarine
Northumbria Coast Ramsar	Wintering Turnstone & Purple Sandpiper	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 internationally important numbers of purple sandpiper and 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.	

Appendix 2: Workshop outputs

This appendix summarises the outputs of a workshop involving a range of stakeholders involved in the nature conservation of the coast, access and coastal management. Participants were asked to annotate maps and identify particular issues relating to recreation and to highlight the solutions they felt were needed. Information from this workshop has been used to inform the measures in the strategy.

Map ref	Impacts	Mitigation	Signage	Education/ Engagement	Change in access	Alternative site(s)	Wardening	Habitat creation
1	Recreation (walking)	M1a Signage and education programme into primary schools - appeal to kids through a mascot - purple sandpiper teddy and cartoon - roll out across all schools - educate about habitats as well as birds - educate councillors as well - habitat creation/roost spots - islands, rafts in ponds M1b Leasing the land south of Hendon to control land use M1c Fullwell Quarries (dog agility areas) - SANGs possibility for the large stretch of football fields (disused) could be turned into a dog rec area but could also impact on SSSI/LWS.	✓	✓	✓	✓		✓
2	Recreational fishing - fishing line - eutrophication	M2 - find out who they are - work with and steer/educate - working with schools - education resources pack - redirect via blocking access (dispersed infrastructure gets destroyed)		✓	✓			
3	Industrial disturbance (port) - physical development - dumping industrial waste around the site							
4	Anti-social behaviour 4a motorbikes/quads 4b fire	- recreate the attraction elsewhere (motorbike course)				✓		
5	Recreation watersport (motorised)	- find areas where they may be accessing the water and check if they can be blocked - Hendon Prom - educate members of the public of areas where watersport		✓	✓			

Map ref	Impacts	Mitigation	Signage	Education/ Engagement	Change in access	Alternative site(s)	Wardening	Habitat creation
		is illegal - put a byelaw in place for enforcement						
6	6a Invasives 6b Garden escapes 6c Garden waste	M6a+b - public training on what to do when they are seen (kicking/pulling) - preventative measures (knocking on doors/leaflets) M6c - contacting people at home/leaflets - education in schools (think about more interactive forms for learning - video, cartoon)		✓				
7	Remote aircraft							
8	Pigeon release	Research more to understand the subject and its effect						
9	Contamination - Mine water (a) - Landfill (b) - From the River Wear	River Wear Trust project with Groundwork to clean up the Wear						
10	Littering A Picnics B Dumping / fly-tipping							
11	Events A Pier to pier run B Illuminations C New Year celebrations D Bonfire night E Balloon release / Chinese lanterns	- Engage with organisers to let them know of sensitivities of site/sp - Environmental impact assessments? Standard proforma of issues on coast and how organisers propose to mitigate - Whatever licence agreements are given to organisers need a validation checklist - Approach Victoria French (Head of Events) - she can cascade the decisions down to the rest of the team		X				
12	Predators A Foxes B Rats C Cats D Dogs	Ecological surveys for pressure points (isolated habitats) Island creation (Terns are using river dredge material)						✓
13	Wildlife tourism	Publicising dolphin/seal sightings		X				
14	Marketing the coast for visitors	Steer the marketing to areas that are less impactful		X				
15	Horse riding							
16	Coastal erosion / managed retreat							

Sunderland issues and mitigation options identified at workshop