



Northumberland
County Council

**HABITATS REGULATIONS
ASSESSMENT REPORT**

OF

**ALNMOUTH PARISH NEIGHBOURHOOD
PLAN 2020 -2036
PRE-SUBMISSION VERSION
MARCH 2020**

**Habitats Regulations Assessment Report
of
Alnmouth Parish Neighbourhood Plan 2020 -2036
Pre-Submission Version (March 2020)**

Contents

1. Introduction	3
Purpose of the Habitats Regulations Assessment Report	3
Format of the Habitats Regulations Assessment Report	3
Habitats Regulations Assessment Consultation	4
2. Habitats Regulations Assessment Requirements and Process	5
Assessment Methodology to meet the requirements of the Habitats Directive	8
3. Stage 1A: Identification of European sites	10
4. Stage 1B: Analysis of Trends	15
Air Quality	15
Water Quality	18
Hydrology	18
Tourism and Recreation	18
Large Scale Development	19
Climate Change	19
Invasive Species	20
5. Stage 1C: Analysis of proposals and policies in the Alnmouth Neighbourhood Plan - Identification of Likely Significant Effects	22
6. Conclusion	26
7. Bibliography	27
8. Comments from Natural England	31

Habitats Regulations Assessment Report, Alnmouth Parish Neighbourhood Development Plan 2020 – 2036 Pre-Submission Version (March 2020).		
Version & Date	Assessing Officer	Supervising Officer
Pre-Submission	David Feige	

1. Introduction

Purpose of the Habitats Regulations Assessment Report

- 1.1 Alnmouth Parish Council are leading the preparation of a neighbourhood development plan (the Plan) to provide locally specific planning policies intended to address issues identified as being important to the local community, particularly where those issues are perceived as not being adequately addressed through existing planning policies.
- 1.2 As the 'competent authority' under the Conservation of Habitats and Species Regulations 2017, Northumberland County Council is required to assess development plans through the HRA process. The purpose of a HRA is to assess possible effects of development plans on the nature conservation interests of sites designated under the Habitats and Wild Birds Directives. These sites consist of Special Areas of Conservation, Special Protection Areas and also include Ramsar Sites. The HRA process is an iterative process and the integration of the HRA process as part of the preparation of development plans is fundamental to the plan making process as policies in the plan can potentially affect designated sites.
- 1.3 HRA is an iterative process and the remaining stages will be completed alongside and will inform preparation of the Plan. The screening opinion provided in this Report will be reviewed once the Plan is submitted to the County Council to ensure that any revisions to policies arising following the pre-submission consultation stage do not result in any variation to this opinion.

Format of the Habitats Regulations Assessment Report

- 1.4 This HRA Report establishes the scope of and the process for completing the HRA of the Alnmouth Neighbourhood Plan and undertakes an assessment of the Alnmouth Parish Neighbourhood Development Plan 2020 – 2036 Pre-Submission Version (March 2020). The HRA Report includes the following:
 1. Introduction
 2. HRA requirements and process.
 3. Stage 1A: Identifies the European sites.
 4. Stage 1B: Identifies the Trend Analysis.
 5. Stage 1C: Analysis of proposals and policies in the Alnmouth Parish Neighbourhood Plan - Identification of Likely Significant Effects
 6. Conclusion
 7. BibliographyAppendices

Habitats Regulations Assessment Consultation

- 1.5 It is a requirement of the Habitats Regulations to consult the appropriate statutory nature conservation organisation (Natural England). Consultation has taken place and Natural England agrees with the conclusion of this assessment.
- 1.6 This HRA report will be issued to Alnmouth Parish Council and the Steering Group to assist in supporting the submission of their Plan to the County Council and to assist the independent examination of the Plan in due course.

2. Habitats Regulations Assessment Requirements and Process

- 2.1 As a member of the European Union, the UK is bound by the terms of the Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive) and the Council Directive 92/43/EEC on the conservation of natural habitats and wild flora and fauna (the Habitats Directive). These are implemented in the UK through the Conservation (Natural Habitats &c) Regulations which provide for the protection of areas of European importance for wildlife, in the form of Special Areas of Conservation (SACs), designated under the Habitats Directive, and Special Protection Areas (SPAs), designated under the Birds Directive. Collectively, these are termed European sites, and the overall network of European sites is termed Natura 2000.
- 2.2 The UK is also a signatory to the Convention on wetlands of international importance especially as waterfowl habitat, which was signed in Ramsar, Iran in 1971. Areas designated under this Convention are called Ramsar sites. Although Ramsar sites are not European sites as a matter of law, the Government has chosen as a matter of policy to protect and manage them by applying the same procedures to them. Consequently, Ramsar sites are treated as European sites in practice.
- 2.3 Articles 6(3) and 6(4) of the Habitats Directive states the following concerning European sites:

“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.”

- 2.4 Regulation 105(1) of the Conservation of Habitats and Species Regulations 2017 states that

“Where a land use plan -

(a) is likely to have a significant effect on a European site in Great Britain or a European offshore marine site (either alone or in combination with other plans or projects), and

(b) is not directly connected with or necessary to the management of the site,

the plan-making authority for that plan shall, before the plan is given effect, make an appropriate assessment of the implications for the site in view of that site's conservation objectives."

Regulation 106 of the Regulations states;

"106.—(1) A qualifying body (i.e. Parish Council, or body designated as a Neighbourhood Forum) which submits a proposal for a Neighbourhood development plan must provide such information as the competent authority may reasonably require for the purposes of the assessment under regulation 105 or to enable it to determine whether that assessment is required."

- 2.5 The purpose of a HRA is to demonstrate that a land-use plan (or other plan or project) will not have any adverse effects on the integrity of any European sites. The assessment determines whether the plan would adversely affect the integrity of any European site in terms of its conservation objectives. Where adverse effects are identified alternative solutions should be identified and the plan modified to avoid any adverse effects. The Planning Authority can adopt the plan only after having ascertained that it will not adversely affect the integrity of a European site.
- 2.6 When preparing a suite of development plan documents, it is important that the HRA is undertaken in a way that is proportionate to the level of the document. The European Commission's own guidance on the application of the test of likely significant effect accepts that policies in a plan that are no more than general policy statements or which express the general political will of an authority cannot be likely to have a significant effect on a site.¹
- 2.7 This issue (for Local Plans) has also been addressed in the High Court case of Feeney, in which the judge stated that:
- "A Local Plan is a high level strategic document and the detail falls to be worked out at a later stage. Each appropriate assessment must be commensurate to the relative precision of the plans at any particular stage and no more. There does have to be an appropriate assessment at the Local Plan stage, but such an assessment cannot do more than the level of detail of the strategy at that stage permits"*²
- 2.8 Therefore, there is a balance to be struck between being sufficiently rigorous in the assessment of potential effects, and undertaking a lot of unnecessary work or even causing a plan to fail the appropriate assessment test of 'adverse effect on site integrity' on the basis of risks that are more hypothetical than real, or risks that are too poorly defined at the Plan stage to be meaningfully assessed at this stage. Therefore some potential effects may be noted at this stage as requiring more detailed assessment at another stage of plan-making.

¹ European Commission, 2000, *Managing Natura 2000 Sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC* section 4.3.2 at http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/provision_of_art6_en.pdf

² Sean Feeney v Oxford City Council and the Secretary of State CLG para 92 of the judgment dated 24 October 2011 Case No CO/3797/2011, Neutral Citation [2011] EWHC 2699 Admin <http://www.oxford.gov.uk/Library/Documents/Barton%20AAP/Barton%20AAP%20CD%207.20.1%20Appendix%20Feeney%20v%20OCC%202011.pdf>

- 2.9 The Feeney case has also provided helpful guidance concerning the role of protective policies for European sites or protective wording within policies. It is clear that a general protective policy in itself cannot be regarded as adequate mitigation for any significant effects, because planning applications must be determined in accordance with the Development Plan. Therefore relying too heavily on a general protective policy can just create internal conflicts with other policies within the Plan.
- 2.10 However, an element of a policy that safeguards European sites or a policy qualifying a particular proposal so as to avoid likely significant effect has been found to be permissible³, as has adopting something in principle that will not actually happen if the protective condition or qualification is not being satisfied⁴. However, it is essential that such safeguards are sufficiently specific that they are not just general safeguards apply to a range of European sites and a range of effects.
- 2.11 In the case of Neighbourhood Plans, in many cases the plan will identify the acceptability criteria for developments in a plan area, relating to location, design or the composition of types of development; with the exact detail of the resulting developments agreed via the development management process (where they are determined in accordance with the Neighbourhood Plan, the Local Plan and the National Planning Policy Framework). In most cases, the neighbourhood plan will not identify additional housing or land allocations to the Local Plan, but will set acceptability criteria. Therefore, in many cases it would be appropriate to rely on a more detailed Habitats Regulations Assessment, with more detailed mitigation measures, at a later stage or lower level of plan making. This is particularly relevant within Impact Risk Zones for European sites where certain developments are likely, alone or in combination, to have a likely significant effect on the site without mitigation.

The Habitats Regulations Assessment Handbook states “*It may be possible and appropriate for the higher level plan to outline some aspects of mitigation measures, which must be provided at the later stage or lower level plan, in order to be able to conclude that there would be no adverse effects on site integrity*”.⁵

“In order to ascertain that there would be no adverse effect on the integrity of a European site, a plan-making body may only rely on mitigation measures in a later stage or lower level of plan making if the following three criteria are all met:

- a) The earlier stage or higher level plan assessment cannot reasonably predict any effect on a European site in a meaningful way; whereas*
- b) The later stage or lower level plan, which will identify more precisely the nature, timing, duration, scale or location of development, and thus its potential effects, will have the necessary flexibility over the exact nature, timing, duration, scale and location of the proposal to enable an adverse effect on site integrity to be avoided; and*
- c) The Habitats Regulations Assessment of the plan at the later stage or lower level is required as a matter of law or Government policy.”*

³ Feeney; paragraphs 88, 90 and 92

⁴ Feeney; paragraph 96

⁵ Tyldesley, D. and Chapman, C. (2013) *The Habitats Regulations Assessment Handbook* (February 2019 update) DTA Publications Ltd section F.10.1.5

Assessment Methodology to meet the requirements of the Habitats Directive

2.12 The Council has adopted the following assessment methodology to meet the requirements of the Habitats Directive:

Stage One – Screening

This comprises an initial analysis to determine whether the Alnmouth Neighbourhood Plan is likely to have a significant effect on any European sites. The Alnmouth Neighbourhood Plan will require appropriate assessment unless it is certain that it will not have a significant effect on any European sites.

- Stage 1A: Identification of European sites relevant to the assessment, and analysis of them in terms of reasons for designation, factors affecting their integrity and trends affecting them.
- Stage 1B: Identification of underlying trends that could affect the integrity of sites.
- Stage 1C: Analysis of the Alnmouth Neighbourhood Plan objectives, proposals and proposed policies in terms of their possible adverse effects on the integrity of European sites, examination of options and alternatives to avoid or reduce these effects.
- Stage 1D: Identification of other plans and projects relevant to the assessment, to identify any likely in-combination effects. Article 6(3) of the Habitats Directive requires that plans and projects likely to have a significant effect on a European site *alone or in combination with other plans or projects* shall be subject to appropriate assessment.

The ruling of the Court of Justice of the European Union in case C-323/17 *People over Wind* in given in April 2018 has had a profound effect on the approach to screening. Prior to this ruling it was established practice to take account of mitigation measures included in a plan or project when determining if that plan or project was likely to have a significant effect. However, paragraph 40 of the ruling states that:

Article 6(3)... must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerning, of a plan or project, it is not appropriate, at the screening stage, to take account of measures intended to avoid or reduce the harmful effects of the plan or project on that site'

Accordingly, the benefit of measures intended to avoid or reduce the harmful effects of a plan or project must be disregarded when determining whether it is likely to have a significant effect on a European site.

Where required:

Stage Two – Appropriate Assessment

Determination of whether any proposals or policies in the Neighbourhood Plan identified at the screening stage as having a likely significant effect would have an adverse effect on the integrity of any European sites, in view of the conservation

objectives for those sites and the nature of the likely significant effect that has been identified. Modifications to those proposals or policies are identified to avoid any adverse effects on site integrity.

If mitigation is not possible and adverse effects on site integrity remain, the process must proceed to Stage Three

Stage Three – Alternative Solutions

The identification of alternative solutions to the relevant proposals or policies so as to avoid adverse effects on the integrity of European sites. The plan must then be modified in light of these findings.

Stage Four – Imperative Reasons of Overriding Public Interest and Compensatory Measures

If a plan or project has adverse effects on the integrity of a European site which cannot be avoided or mitigated for and there are no alternative solutions, consideration must be given to whether there are imperative reasons of overriding public interest for proceeding with the plan or project. This stage involves central Government and must be notified to the European Commission. If there are imperative reasons of overriding public interest, compensatory measures must be identified to maintain and enhance the overall coherence of the Natura 2000 network. This will only be in exceptional circumstances and must be supported by strong justification.

3. Stage 1A: Identification of European sites

- 3.1 The following European sites are wholly or partly within 10km of the plan boundary or are considered to have the potential to be affected by the Plan, and so are within the scope of the Habitats Regulations Assessment:

Special Areas of Conservation

- Berwickshire and North Northumberland Coast
- North Northumberland Dunes

Special Protection Areas

- Coquet Island
- Northumbria Coast
- Northumberland Marine SPA

Ramsar Sites wholly or partly within Northumberland

- Northumbria Coast

Site Analysis

- 3.2 This stage of the assessment details the reasons that relevant European sites have been designated (the qualifying features), the objectives intended to be achieved by designating and managing the sites, and the environmental conditions that are key to maintaining the integrity of the site. Guidance from the European Commission states that ‘a site can be described as having a high degree of integrity where the inherent potential for meeting site conservation objectives is realised, the capacity for self-repair and self-renewal under dynamic conditions is maintained, and a minimum of external management support is required’ (EC, 2000; para 4.6.3)

An asterisk * beside a qualifying feature indicates that the feature is listed as a priority habitat on Annex I of the Habitats Directive.

Site	Qualifying Features	Conservation Objectives	Key Environmental Conditions to Support Site Integrity
Berwickshire and North Northumberland Coast SAC	Large shallow inlets and bays Intertidal mudflats and sandflats Reefs Submerged or partially submerged sea caves Grey seal	Subject to natural change, to maintain in (or restore to) favourable condition the – Extent, distribution, diversity and species richness of reef communities. Diversity of sea cave communities and their characteristic zonation. The extent of eelgrass and mussel communities and the diversity of infaunal communities in the intertidal mud and sandflats Grey seal habitats, especially the extent and suitability of breeding habitat on the Farne Islands	Reefs – no significant change in water clarity (e.g. due to increases in suspended material), temperature or salinity, or in the distribution of rocky shore communities. Sea caves – no significant change in water clarity (e.g. due to increases in suspended material), temperature or salinity, or in the distribution of sea cave biotypes. Intertidal mud or sandflats – no reduction in extent, no significant change in sediment character (particle size composition, organic content) ensuring no increase in the extent of algal mats or significant changes in the distribution and abundance of eelgrass beds, mussel beds or distribution of infaunal biotopes. Grey seal habitats – human disturbance low enough to avoid reduction in numbers or displacement from key areas; no reduction in extent of rocky and

Site	Qualifying Features	Conservation Objectives	Key Environmental Conditions to Support Site Integrity
			coarse sediment shores used for breeding and hauling out.
North Northumberland Dunes SAC	Fixed dunes with herbaceous vegetation * Dunes with creeping willow Embryonic shifting dunes Humid dune slacks Shifting dunes with marram Petalwort	Subject to natural change, to maintain in (or restore to) favourable condition the listed habitats. To maintain in (or restore to) favourable condition, the habitats for the population of petalwort.	Fixed dunes – appropriate grazing levels to maintain species and structural diversity, no increase in area occupied by invasive species e.g. Dunes with creeping willow – maintain active successional processes. Embryonic shifting dunes – sufficient area between high water mark and stable dunes to allow development of embryonic dunes, presence of beach plain at low tide to supply blown sand Humid dune slacks – maintenance of hydrological regime Shifting dunes with marram -sufficient area between high water mark and stable dunes to allow development of embryonic dunes, presence of beach plain at low tide to supply blown sand, no increase in linear extent or area constrained by introduced structures or landforms, no increase in area where vegetation establishment is prevented by human activity. Petalwort – maintenance of very short vegetation in dune slacks
Northumbria Coast SPA	Internationally important breeding populations of little tern and arctic tern	To maintain in (or restore to) favourable condition the sand dunes for the breeding populations of little tern and arctic tern; To maintain in (or restore to) favourable condition rocky shores with boulder and	All features – no significant increase in human disturbance or that caused by off-lead dogs. Maintenance of sparsely vegetated dunes for nesting (little tern). Extent and quality of rocky shore feeding and roosting habitat (purple sandpiper and turnstone)

Site	Qualifying Features	Conservation Objectives	Key Environmental Conditions to Support Site Integrity
	Internationally important wintering populations of purple sandpiper and turnstone	cobble beaches for wintering purple sandpiper and turnstone.	
Northumberland Marine SPA	Internationally important breeding populations of Annex 1 species: Sandwich tern Roseate tern Common tern Arctic tern Little tern Common guillemot Atlantic puffin An internationally important seabird assemblage of over 20,000 birds	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring; <ul style="list-style-type: none"> • The extent and distribution of the habitats of the qualifying features • The structure and function of the habitats of the qualifying features • The supporting processes on which the habitats of the qualifying features rely • The population of each of the qualifying features, and, The distribution of the qualifying features within the site.	Not available yet
Northumbria Coast Ramsar Site	Internationally important breeding population of little tern Internationally	To maintain in (or restore to) favourable condition the sand dunes for the breeding population of little tern; To maintain in (or restore to) favourable condition rocky shores with boulder and cobble beaches for wintering purple	All features – no significant increase in human disturbance maintenance of sparsely vegetated dunes for nesting (little tern). extent and quality of rocky shore feeding and roosting habitat (purple sandpiper and turnstone)

Site	Qualifying Features	Conservation Objectives	Key Environmental Conditions to Support Site Integrity
	important wintering populations of purple sandpiper and turnstone	sandpiper and turnstone.	

4. Stage 1B: Analysis of Trends

- 4.1 Trends are influences on a European site other than other plans and projects, which have influenced it and are likely to continue to influence it. It is important that relevant trends are considered alongside the plan that is subject to Habitats Regulations Assessment and other plans and projects, in order to identify the factors which, in combination, may be affecting a European site.
- 4.2 The following trends have been identified as being relevant to this Habitats Regulations Assessment:
- Air quality
 - Water quality and hydrology
 - Tourism and recreation
 - Large scale development
 - Climate change
 - Non-native invasive species

Air Quality

- 4.3 The most significant pollutants in the UK are as follows:

Sulphur Dioxide SO₂

- 4.4 The main sources of SO₂ are power stations and industrial combustion processes burning large quantities of fossil fuels.
- 4.5 Wet and dry deposition of SO₂ acidifies soils and fresh waters, thereby altering the composition of plant communities by causing a decline in species intolerant of more acid conditions. The significance of impacts depends on the levels of deposition and the buffering capacity of the receiving environment; basic environments have a higher buffering capacity while acid soils and waters have a much lower buffering capacity and so are more severely affected.

Nitrogen Oxides NO_x (nitrate (NO₂), nitrogen oxides (NO₃) and nitric acid (HNO₃))

- 4.6 NO_x are mainly produced by combustion, with about a quarter of UK emissions from power stations, half from vehicle exhausts and the rest from industrial and domestic combustion.
- 4.7 Deposition of NO_x can lead to acidification of soils and freshwater. As with SO₂, the degree of harm depends on the level of deposition and on the buffering capacity of these environments. NO_x can also lead to the eutrophication of soils and waters, leading to the competitive exclusion of sensitive species as more vigorous ones take advantage of the increased nutrient levels.

Ammonia (NH₃)

- 4.8 Ammonia is released during the decomposition of animal wastes, and adverse effects are caused by eutrophication, mainly within or near intensive livestock rearing environments in the lowlands.

4.9 Levels have been greatly increased by the development of intensive livestock rearing systems during the twentieth century. However recent agricultural policy reforms and the introduction of agri-environment schemes are likely to facilitate a reverse in this trend.

Low Level Ozone O₃

4.10 A secondary pollutant generated by photochemical reactions from NO_x and volatile organic compounds.

4.11 Concentrations of O₃ exceeding 40 ppb are toxic to humans and wildlife, altering the species composition of semi-natural habitats.

Underlying Trends in Air Pollution

4.12 The National Expert Group on Transboundary Air Pollution report of 2001 *Transboundary Air Pollution: Acidification, Eutrophication and Ground-Level Ozone in the UK* reported the following findings:

1. Total SO₂ emissions have decreased substantially in recent decades due to a decline in heavy industry, a decreasing contribution of coal burning in electricity generation, selection of lower sulphur coals for this purpose and cleaner burning of fossil fuels in power stations. Direct effects on vegetation have been virtually eliminated
2. Critical loads for acidification were exceeded in 71% of UK ecosystems in 1997, but this is forecast to drop to 47% by 2010, by which time NO_x will have replaced SO₂ as the major contributor.
3. Critical loads for eutrophication were exceeded in 25% of sensitive grasslands and 55% of heathland in 1995-97. This is expected to drop to 20% and 40% respectively, due to decreasing NH₃ and NH₄ emissions.
4. Overall, current deposition of nitrogen is probably changing the composition of vegetation in many nutrient-poor (acidic) habitats, and these changes may not be readily reversible.

4.13 Although technological advances have reduced NO_x emissions from vehicle engines, increasing traffic levels are likely to cause NO_x levels to start to increase again, and NO_x levels are identified as a problem for sensitive sites adjacent to major transport routes.

4.14 Vehicle use is likely to continue to increase in Northumberland for a number of reasons; rising levels of car ownership, increasing levels of economic activity, increasing levels of tourism, population growth (albeit at a very modest level). The Design Manual for Roads and Bridges⁶ includes an equation describing the characteristic decrease in pollutant concentrations with increasing distance from roads. Based on this and other research, it is considered that NO_x emissions generated within 200m of a European site which has interest features which are vulnerable to nitrogen deposition need to be considered in Habitats Regulations Assessments.

⁶ <http://www.dft.gov.uk/ha/standards/dmr/vol11/section3/ha20707.pdf>

European sites currently receiving acid deposition, nitrogen deposition or both above their critical loads

4.15 Based on the UK Air Pollution Information System (APIS) and the Environment Agency study *Impact of atmospheric emissions from JEP coal and oil-fired power stations on sites protected by the Habitats Directive* (February 2006), the following table shows European sites where acid deposition, nitrogen deposition or ozone are above their critical loads. The figures show air pollution levels divided by the critical load that the site can carry, so a figure in excess of 1.0 shows that the critical level is being exceeded.

European Site	Acid Deposition	Nitrogen Deposition	Ozone	Features most sensitive to N and acid deposition	Largest non-agricultural source
North Northumberland Dunes SAC	0.25	1.01	0.90	Fixed dunes Embryonic shifting dunes	Acid – LCP N - LCP

NB

1. Marine and intertidal features were not considered to be at risk due to the buffering effects of seawater.
2. Information was not available for freshwater sites, but the risk presented from atmospheric nitrogen was considered to be de *minimus* compared to inputs from surface and groundwater runoff.

4.16 The table shows that the North Northumberland Dunes SAC is at risk from increased nutrient loads.

Water Quality

- 4.17 Parts of rural Northumberland are not served by mains sewerage, resulting in the usage of non-mains systems such as septic tanks and package treatment plants. Their proper functioning is dependent on appropriate maintenance by their owners, which isn't always kept up, potentially resulting in a large number of small sources of pollution that can be hard to trace and manage.
- 4.18 Increased algal growth is of concern in Budle Bay, where it is adversely affecting the intertidal sand and mudflats which are an interest feature of the Berwickshire and North Northumberland Coast SAC and, by displacing eelgrass beds, adversely affecting Lindisfarne SPA by reducing the quality and quantity of feeding habitat of grazing wildfowl such as light-bellied Brent goose, wigeon and whooper swan. The reasons for the increased algal growth in this area have not been clearly determined; however, nutrient input from diffuse agricultural pollution in the Tweed catchment is likely to be a significant factor.

Hydrology

- 4.20 The supply of water in Northumberland is divided into two water resource zones, Kielder WRZ and Berwick and Fowberry WRZ. The Kielder WRZ serves most of the population of Northumberland and is supplied via river systems and reservoirs. For the most part, there are no water availability issues within this WRZ, primarily due to the very substantial supplies at Kielder Reservoir; however, both the rivers Coquet and Font have been identified as experiencing water availability issues. The Berwick and Fowberry WRZ is supplied primarily from an underlying aquifer, and supply shortages have been experienced during periods of high demand. Water abstraction for agriculture occurs from the Tweed catchment rivers, potential impacts on the SAC are being managed through abstraction licence reviews.

Tourism and Recreation

- 4.21 Tourism is concentrated in certain areas of the county, especially the coast. Disturbance can be a significant impact arising from coastal recreation, with potential adverse impacts on nesting and feeding tern species, feeding and roosting migratory and winter waders and wildfowl and on fragile dune communities. Dogs, especially off-lead animals, increase the effect of casual disturbance of birds by walkers.
- 4.22 European sites at particular risk of disturbance impacts include the Northumbria Coast SPA and Ramsar Site, Lindisfarne SPA and Ramsar Site and the North Northumberland Dunes SAC. European sites vulnerable to disturbance from increasing visitor numbers include the North Pennines SPA.
- 4.23 Improvements in treatment of sewage arising from coastal settlements in order to meet Urban Waste Water Treatment Directive obligations will help to ensure that increasing visitor numbers do not contribute to the eutrophication of intertidal and subtidal habitats.

Large Scale Development

- 4.24 Development of land is occurring at a comparatively modest pace in Northumberland, with the bulk of housing and industrial development occurring in and adjacent to the settlements of south-east Northumberland, on the periphery of the Tyneside conurbation. New development causes a range of impacts that can affect European sites, including increased or changing patterns of air pollution from changing or increasing vehicle uses, and increases in water demand and in waste arisings. Urban expansion can also cause loss of or increased disturbance to land which is used as high tide and night time roosts by bird species which are key features of the coastal SPAs, and it can increase disturbance within these SPAs, for example through increased recreational use of the intertidal zone and through light pollution. Recreational disturbance such as dog walking can be a particular problem when new residential development occurs close to the Northumbria Coast SPA and Ramsar Site; feeding opportunities for turnstone and purple sandpiper are already restricted by the tides and the limited daylight of winter, so lost feeding time and increased energy use evading perceived predators could be significant. Some high tide and night time roost sites used by these species are known to occur in close proximity to development, but overall knowledge of the location of roost sites is incomplete. There is currently a high degree of uncertainty about the breeding locations of the golden plover that winter on the Northumberland Coast; however, adverse effects on the wintering populations could affect the integrity of the North Pennines Moors SPA or other SPAs that they breed in.
- 4.25 Demand for particular types of building stone, for markets within and outwith Northumberland, can create demand for particular sites to be quarried. In Northumberland, demand for dimensional building stone is generally for sandstone, with a low likelihood of significant effects on European sites.
- 4.26 The highest quality concreting sands and gravels in Northumberland are derived from igneous rocks, and so occur in the north of the county, in valleys of rivers which are within the River Tweed SAC. Potential significant effects include releases of silt or pollutants to the watercourses and hydrological changes arising from water abstraction for processing.

Climate Change

- 4.27 Changes in climate arising from increasing levels of atmospheric CO₂ are very complex and difficult to predict. However, increasingly warm dry summers and mild, stormy winters along with rising sea levels seem to be the most likely trends. Possible impacts on European sites include the following:
- coastal squeeze, as habitats such as saltmarshes and sand dunes are caught in a decreasing amount of space between rising sea levels on their seaward side and human land uses on their landward side. This is likely to affect all coastal European sites, but effects will be felt first and most severely on European sites with intertidal habitats and dunes, which are Berwickshire and North Northumberland Coast SAC, Tweed Estuary SAC, North Northumberland Dunes SAC, Lindisfarne SPA and Ramsar Site, Northumbria Coast SPA and Ramsar Site. Increased depths of water due to sea level rise may also affect coastal reefs and caves in the Berwickshire and North Northumberland Coast SAC.

- distribution patterns of many species affected by shifts in their 'climate space' (the geographic area which has the appropriate climate for that species) which may have impacts on coastal sites.
- increasing rates of colonisation by new species, including pests and diseases
- higher summer water temperatures, with consequent decrease in levels of dissolved oxygen and increases in levels of primary productivity and decay processes.

4.28 Measures likely to assist in reducing the impacts of or in adapting to climate change include habitat restoration to improve 'ecosystem services', and land use change to facilitate the movement of communities and species. Examples of ecosystem services include the hydrological functioning of blanket bogs in absorbing large quantities of water from rainfall and gradually releasing it to watercourses, and the flood storage function of river floodplains. The hydrological function of blanket bogs in the uplands of Northumberland and surrounding areas has been adversely affected by the excavation of drainage ditches, especially during the 1950s – 1970s, and through afforestation. Projects to block ditches and restore afforested bogs are underway in the North Pennines and the Border Uplands, but are of a small scale compared to the areas affected. The area of functional floodplain in Northumberland has been greatly reduced over a long time period as flood defences have been put in place for settlements and farmland; however, increasingly severe winter storms will increase the need for it. Coastal realignment (the setting back of coastal defences) has the potential to allow coastal habitats such as saltmarsh to migrate landwards rather than being lost to coastal squeeze; projects are currently underway at Alnmouth and Goswick through the Northumberland Foreshores Project which will demonstrate the potential of this approach, although again these are of very limited scale compared to the problem.

4.29 The issue of facilitating the movement of communities and species in response to movements in their climate space is complex, as they vary greatly in their ability to make such movements and their requirements that they have in order to do so; accordingly such changes are likely to be chaotic rather than simple, with more adaptable species and less specialist communities faring much better than more demanding and specialist ones. It is unclear whether beneficial land management practices can be initiated on a significant enough scale to assist in this process; however, those activities that are most likely to have a beneficial effect in this respect include restoring existing habitats to good condition to maximise their resilience, and increasing ecological connectivity by increasing the overall extent of semi-natural vegetation in the wider countryside; reinforcing and expanding features that act as links and corridors such as watercourses and their associated riparian habitats; increasing the density of networks of habitats such as wetlands, semi-natural grasslands and native woodlands; and managing farmland in a way that integrates food production and wildlife conservation. This requires that nature conservation is planned and implemented at a landscape scale, rather than on the traditional site-by-site basis.

Invasive Species

4.30 Thousands of non-native species have become established in the UK, having been brought here either intentionally or accidentally by people. A small proportion of non-native plants have become highly invasive, displacing native vegetation and forming

dense single-species stands of little value to wildlife. Similarly, a few such animals are displacing native species, either directly or via pests or diseases that they have brought with them. Significant problems within European sites are as follows:

- Pirri-pirri bur is adversely affecting dune grassland within the North Northumberland Dunes SAC.
- *Spartina* (a saltmarsh grass) is adversely affecting mudflats within the Berwickshire and North Northumberland Coast SAC and Lindisfarne SPA.
- Japanese knotweed and giant hogweed are displacing native riparian vegetation in the River Tweed SAC and many other rivers.
- Crayfish plague, associated with the introduced signal crayfish, is spreading in northern England, and so the integrity of the River Eden SAC is at risk.
- Pacific oyster *Crassostrea gigas*, a non-native invasive species is currently being farmed within Lindisfarne SPA and Ramsar Site, Northumberland Marine SPA and the Berwickshire and North Northumberland Coast SAC.

5. Stage 1C: Analysis of proposals and policies in the Alnmouth Parish Neighbourhood Plan - Identification of Likely Significant Effects

- 5.1 The objectives, policies and community actions contained within the Alnmouth Neighbourhood Plan have been evaluated to identify where there could be a likely significant effect on the interest features of European sites.

Paragraph 177 of the NPPF states that the presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the European site.

- 5.5 The following European sites are within the boundary of the Plan. The North Northumberland Dunes SAC and Northumberland Marine SPA are present along the tidal reaches of the River Aln, with the other sites being present at the coast. Each European Site is underpinned by a number of component Sites of Special Scientific Interest.

Special Areas of Conservation

- Berwickshire and North Northumberland Coast
- North Northumberland Dunes

Special Protection Areas

- Northumbria Coast
- Northumberland Marine SPA

Ramsar Sites

- Northumbria Coast

5.6 Current Condition of Designated Sites and Threats to Site Integrity

Site	Qualifying Features	Current Condition of Component SSSIs within 10km of the Plan boundary	Threats to Site Integrity
Berwickshire and North Northumberland Coast SAC	Large shallow inlets and bays Intertidal mudflats and sandflats Reefs Submerged or partially submerged sea caves Grey seal	<u>Howick to Seaton Point SSSI</u> – favourable.	Reefs –significant change in water clarity (e.g. due to increases in suspended material), temperature or salinity, or in the distribution of rocky shore communities. Sea caves –significant change in water clarity (e.g. due to increases in suspended material), temperature or salinity, or in the distribution of sea cave biotypes. Intertidal mud or sandflats –reduction in extent, significant change in sediment character (particle size composition, organic content), increase in the extent of algal mats or significant changes in the distribution and abundance of eelgrass beds, mussel beds or distribution of infaunal biotopes. Grey seal habitats – human disturbance causing reduction in numbers or displacement from key areas; reduction in extent of rocky and coarse sediment shores used for breeding and hauling out.
North Northumberland Dunes SAC	Fixed dunes with herbaceous vegetation * Dunes with creeping willow Embryonic shifting dunes Humid dune slacks Shifting dunes with marram Petalwort	<u>Warkworth Dunes and Saltmarsh</u> 100% favourable condition; no mention of any access-related problems in the ‘Condition of SSSI Units’ report. <u>Alnmouth Saltmarsh and Dunes</u> 100% favourable condition; no mention of any access-related problems in the ‘Condition of SSSI Units’ report.	Fixed dunes – loss of species and structural diversity, no increase in area occupied by invasive species e.g. Dunes with creeping willow – loss of active successional processes. Embryonic shifting dunes – loss of area between high water mark and stable dunes to allow development of embryonic dunes, loss of beach plain at low tide to supply blown sand Humid dune slacks –hydrological regime changes Shifting dunes with marram – lack of sufficient area between high water mark and stable dunes to allow development of embryonic dunes, presence of beach plain at low tide to supply blown sand, increase in linear extent or area constrained by introduced structures or landforms, increase in area where vegetation establishment is prevented by human activity. Petalwort –loss from dune slacks

Site	Qualifying Features	Current Condition of Component SSSIs within 10km of the Plan boundary	Threats to Site Integrity
Northumbria Coast SPA/Ramsar Site	Internationally important breeding populations of little tern and arctic tern Internationally important wintering populations of purple sandpiper and turnstone	100% of the underlying SSSI units are assessed as being in favourable condition.	All features –significant increase in human disturbance or that caused by off-lead dogs. Loss of sparsely vegetated dunes for nesting (little tern). Changes to the extent and quality of rocky shore feeding and roosting habitat (purple sandpiper and turnstone)
Northumberland Marine SPA	Internationally important breeding populations of Annex 1 species: Sandwich tern Roseate tern Common tern Arctic tern Little tern Common guillemot Atlantic puffin An internationally important seabird assemblage of over 20,000 birds	Not available yet	Not available yet

Assessment of the Plan Policies:

5.7 Policy: PRINCIPAL RESIDENCE HOUSING

This policy constrains any new housing to be for principal residency only. It does not in itself support new development and so will not have a significant effect on any European sites. Therefore it can be screened out.

Conclusion.

- 6.1 This is a record of the determination as to whether the Alnmouth Parish Neighbourhood Plan Pre-Submission Version (March 2020) is likely to have a significant effect on any European sites, as required under Regulation 106 of the Conservation of Habitats and Species Regulations 2017 as amended.
- 6.2 The Neighbourhood Plan contains a single policy, which states that proposals for new housing will only be supported where occupation is restricted to permanent residents. This policy will not facilitate new development and therefore cannot cause a significant effect on any European sites, alone or in combination with any other plans or policies.
- 6.3 In accordance with Regulation 106 of the Conservation of Habitats and Species Regulations 2017 as amended, Northumberland County Council concludes that the Alnmouth Parish Neighbourhood Plan Pre-Submission Version (March 2020) is unlikely to have a significant effect on any European sites and therefore it is unnecessary to undertake an appropriate assessment prior to the adoption of the Plan.

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10. Comments from Natural England

Natural England agree with the conclusions of this document and have no further comment to make.

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14/05/20