

Transport for the North Strategic Transport Plan Integrated Sustainability Appraisal

Habitats Regulations Assessment – Stage 1
Screening

Transport for the North

January 2018

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This document has 45 pages including the covers.

Document history

Job number: 5153450			Document ref: TfN STP – HRA (Stage 1 Screening)			
Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 1.0	Draft for comment	Emily Clark 	Alex Watson 	Alex Watson 	M Hewlett	November 2017
Rev 2.0	Final (For Consultation)	ISA Team	PMcE	MH	MH	January 2018

Client Signoff

Client	Transport for the North
Project	Transport for the North Strategic Transport Plan Integrated Sustainability Appraisal
Document Title	Habitats Regulations Assessment – Stage 1 Screening
Job No.	5153450
Copy No.	
Document Reference	

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1. Introduction

1.1. Background to this Assessment

Atkins Limited (Atkins) has been commissioned by Transport for the North (TfN) to undertake a Habitats Regulations Assessment (HRA) Stage 1 Screening of the Transport for the North Strategic Transport Plan (STP) 2017.

This information has been gathered on behalf of TfN to allow them to make a decision on whether there will be any likely significant effects on European sites as a result of the Strategic Transport Plan 2017, and therefore if an appropriate assessment is required.

1.2. Background to Habitats Regulations Assessment

HRA is required under Article 6 of the Habitats Directive¹ and Regulation 61 of the Conservation of Habitats and Species 2010 (as amended) (the Habitats Regulations), for all plans and projects which may have likely significant effects on a European site (either alone or in combination with other plans or projects) and are not directly connected with, or necessary to, the management of the site.

European sites include Special Areas of Conservation (SAC) and Special Protection Areas (SPA). HRA is also required, as a matter of UK Government policy for potential SPAs (pSPA), candidate SACs (cSAC), Wetlands of European importance (Ramsar sites), and proposed Ramsar sites (pRamsar) for the purposes of considering plans and projects, which may affect them². Hereafter all of the above designated nature conservation sites are referred to as 'European sites'.

There are four stages to the HRA process. These are summarised below:

- **Stage 1 – Screening:** To test whether a plan or project either alone or in combination with other plans and projects is likely to have a significant effect³ on an European site;
- **Stage 2 – Appropriate Assessment:** To determine whether, in view of a European site's conservation objectives, the plan (either alone or in combination with other projects and plans) would have an adverse effect on the integrity of the site with respect to the site structure, function and conservation objectives. If adverse impacts are anticipated, potential mitigation measures to alleviate impacts should be proposed and assessed;
- **Stage 3 – Assessment of alternative solutions:** Where a plan is assessed as having an adverse impact (or risk of this) on the integrity of an European site, there should be an examination of alternatives (e.g. alternative locations and designs of development); and
- **Stage 4 – Assessment:** In exceptional circumstance where no alternative solutions remain and where adverse impacts remain (e.g. where there are imperative reasons of overriding public interest). Compensatory measures would usually be required to offset negative impacts.

This report comprises the Stage 1 – Screening of the Plan.

1.3. Outline of this Report

Following this introduction:

¹ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive)

² *National Planning Policy Framework*. Department for Communities and Local Government. March 2012.

³ Likely significant effect is any effect that may reasonably be predicted as a consequence of a plan or project that may affect the conservation objectives of the features for which the site was designated. If any plan or project causes the cited interest features of a site to fall into unfavourable condition they can be considered to have a likely significant effect on the site.

- Section 2 outlines the details of the TfN STP;
- Section 3 of this report sets out the methodology used for the Stage 1 - Screening;
- Section 4 details the results of Stage 1 - Screening for the European sites;
- Section 5 provides the conclusions of the Stage 1 – Screening assessment.

2. Background to Strategic Transport Plan

The Strategic Transport Plan (STP) for the North sets out the case for connectivity priorities for transport infrastructure for the next thirty years (up to 2050). A key component of the STP is the series of transport objectives, which set out the aims of the STP and which will be applied across the North of England. These transport objectives are all of equal standing and as such, a key focus is on ensuring that sustainability is embedded throughout the STP. These objectives are detailed in **Error! Reference source not found.** below.

Table 2-1 – TfN Network Principles and Ambitions

Transforming economic performance;	To secure investment in transport between economic centres and assets to support transformation of the North's economic performance. This objective focuses on addressing the challenges identified in the Northern Powerhouse Independent Economic Review (NPIER) and securing investment in transport interventions that improve productivity across the North and delivers agglomeration benefits between the North's important economic centres and assets, both rural and urban.
Promote and support the built and natural environment;	To ensure that transport interventions across the strategic transport system protect and enhance the natural and built environment, ensuring that the north's strategic transport system is as sustainable as possible. It covers a range of issues, including the need to provide sustainable travel choices for the movement of people and goods across the North; reducing emissions from transport; making best use of our existing transport infrastructure before investing in new capacity; and ensuring that new infrastructure is designed to minimise the negative impacts on both the natural and built environment.
Improve opportunities across the North;	To ensure that the STP improves access to opportunities for all across the North. Ultimately transport is a means to an end, to ensure that economic growth in the North is as inclusive as possible, investment in the strategic transport network should enable better access to key opportunities, including employment, healthcare, social activities and education, for all, regardless of their age, income-level and mobility. This will require a carefully co-ordinated approach to ensure that strategic and local transport investment programmes and policies are aligned and complimentary
Increase efficiency, reliability and resilience in the transport system;	To improve the performance of the North's strategic transport network by making the case for interventions that improve its efficiency, reliability and resilience. This will ensure that the North's strategic transport networks meet the needs of its users, whether they are residents, businesses or visitors. The management of these networks will need to be able to adapt to changing demands over the period to 2050, such as shifting commuter patterns, changing leisure aspirations, more extreme weather conditions as a result of climate change and the emergence of new disruptive technologies, such as connected and autonomous vehicles. TfN will also identify opportunities to improve travel choices for the movement of both people and freight, to boost the resilience and sustainability of our pan-Northern networks, with a particular focus on making more sustainable travel options as attractive as possible. TfN will also promote measures that help to make the best of our existing networks, exploring new technologies and demand management tools that help to maximise network efficiency.

The TfN STP focuses on creating an integrated and well co-ordinated transport system that supports a range of different travel needs. Supporting these transport objectives within the STP, a series of strategic development corridors that are connectivity priorities to support economic growth of the north, these are;

- Connecting the Energy Coasts – Improving connectivity for people and goods between the nationally significant non-carbon energy and research assets located in Cumbria, Lancashire, North Yorkshire, North East and Tees Valley;
- West and Wales – Improving connectivity, for people and goods to, from and through the important economic centres and assets of Cheshire, Liverpool City Region and Greater Manchester, with strategic connectivity to North Wales and the Midlands;
- Central Pennines – Improving strategic east-west connectivity for some of the North's important economic centres and assets in North Yorkshire, West Yorkshire and Hull and Humber through to Greater Manchester, Lancashire and Liverpool City Region;
- Southern Pennines – Improving the strategic east-west, multi-modal connectivity between the important economic centres, assets and ports within Liverpool City Region, Greater Manchester, Cheshire, Sheffield City Region and Hull and Humber, as well as cross-border movements to the Midlands;
- North west to Sheffield City Region – Strengthening rail connectivity between the advanced manufacturing clusters and assets in Cumbria, Lancashire, Greater Manchester and Sheffield City region, with improved connectivity from the North in to Scotland;
- East Coast to Scotland – Strengthening rail connectivity along the East Coast Main Line and other key parallel rail lines, such as the Durham Coast Line, to provide enhanced strategic and local connectivity in the North East, Tees Valley and north Yorkshire;
- Yorkshire to Scotland – Strengthening road connectivity between the Midlands, South Yorkshire, West Yorkshire, North Yorkshire, Tees Valley, the North East and Scotland, building on the existing road investment commitments.

2.1. Provisions within the TfN STP that Protect European Sites

When planning applications are determined all of the relevant policies and supporting text in the TfN STP are taken into account and used as the basis for decision-making.

The TfN STP includes text within the 'TfN's principle for Pan-Northern Transport System' on page 86 – 87 of the STP, which seeks to protect European sites by setting out how the HRA process should be taken forward for new infrastructure projects within the STP region. The text clearly states that any proposed development that may have an adverse effect on European important sites will be subject to the HRA process by the competent authority (see relevant text below).

The North of England contains a number of statutory and non-statutory designated sites that are protected for their importance for nature conservation. Prime amongst these sites are Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), which form the Natura 2000 European network of core breeding and resting sites for rare and threatened species, along with some rare natural habitat types. It is the aim of this network to ensure the long-term survival of Europe's most valuable and threatened species and habitats, listed under the European Commission's Habitats and Birds Directives. In addition to the Natura 2000 sites, there are also internationally important wetlands designated as Ramsar sites.

At a UK level there are a large number of nationally important Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs), and many important Local Nature Reserves (LNRs) and green spaces that support wildlife and enhance the wellbeing of the local population. Therefore, any specific infrastructure proposals will need to be in-line with the TFN ISA and will need to satisfy Manchester City Council and Natural England that there will be no adverse effect on the integrity of the European designated sites. Any adverse effects on integrity must be effectively mitigated, or, as a last result, compensated.

The Strategic Transport Plan and Investment Programme recognises the importance of all these sites and TfN are committed to work with Partners to avoid and/or minimise any adverse impacts on important nature conservation sites as far as possible. Any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, and/or compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. This would include for European designated sites (including Ramsar sites), when necessary, Habitats Regulation Assessment.

Whilst it is not directly connected to European Site the TfN STP on page 86 also states:

the pan-Northern transport objectives, and will be developed over time to ensure TfN's Investment Programme becomes an exemplar in how it:

- *Explores opportunities for 'green' and 'blue' infrastructure to enhance landscapes and habitats, and support a net gain in biodiversity where possible.*

The TfN STP therefore ensures that the competent authority (in consultation with Natural England) will give consideration to European sites in order to inform infrastructure planning decisions on new transport projects. The text states that any development which has an adverse impact on an important environmental site should be avoided as far as possible. If this cannot be achieved, the adverse impacts will be adequately mitigated, or, as a last result, compensated for. A Habitat Regulations Appropriate Assessment will be undertaken in the case of European designated sites for any proposal likely to have significant effects on the site itself.

Therefore, any specific infrastructure proposals will need to be in-line with the TfN's STP and will need to satisfy the relevant Local Authority and the relevant statutory conservation body (Natural England, Scottish Natural Heritage and Natural Resources Wales) that there will be no adverse effect on the integrity of the European designated sites. Any adverse effects on integrity must be effectively mitigated, or, as a last result, compensated.

3. Methodology

3.1. Gathering Information

All available information about the Plan was gathered in order to analyse whether the Plan is likely to have any likely significant effects on the European sites.

3.2. Determination of European Sites included in the HRA

An initial review of the Plan in light of the Habitats Regulations has been undertaken by Atkins as part of the HRA process. This initial review looked at the geographic extent or zone of influence of any impacts which could arise as a result of the Plan and considered which international sites should be included within the assessment.

3.3. Obtaining Information on International Sites with the Potential to be Affected

The Conservation Objectives and site vulnerabilities for all European sites (where available) have been obtained from Natural England⁴ for the purpose of this assessment. Further details of these international sites are provided in Appendix A.

3.4. Identification of Relevant European Sites

The TfN STP will apply to an area of the north of England comprising the combined overall geographical extents of the 11 Local Enterprise Partnerships (LEP)⁵. All the European sites within the STP area and up to 20 km from its boundaries have been identified. Table 3-1 below provides a summary of the constituent local authorities of the various LEP areas and the European site which fall within each area

Note that sites may cross the boundary of a number of LEP areas and as such are noted in relation to each LEP. There are also sites within 20km of the STP area boundary which are in Scotland and as such would require consideration of trans-boundary issues:

⁴ <http://publications.naturalengland.org.uk/category/6490068894089216>

Table 3-1 – European Sites Designated for Nature Conservation

LEP Area	SAC	SPA	Ramsar
Cheshire	Dee Estuary	Mersey Estuary	Rostherne Mere
	River Dee and Bala Lake	The Dee Estuary	Mersey Estuary
	Oak Mere	Peak District Moors (South Pennine Moors Phase 1)	The Dee Estuary
	South Pennine Moors		Midland Meres & Mosses Phase 2
	Rixton Clay Pits		Midland Meres & Mosses - Phase 1
	Manchester Mosses		
Cumbria	Moor House-Upper Teesdale	Upper Solway Flats & Marshes	Esthwaite Water
	Helbeck & Swindale Woods	North Pennine Moors	Upper Solway Flats & Marshes
	Tarn Moss	Morecambe Bay & Duddon Estuary	Irthinghead Mires
	River Kent		Duddon Estuary
	Ullswater Oakwoods		Morecambe Bay
	South Solway Mosses		
	Solway Firth		
	Cumbrian Marsh Fritillary Site		
	Drigg Coast		
	Morecambe Bay Pavements		
	Roudsea Wood & Mosses		
	Witherslack Mosses		
	Yewbarrow Woods		
	Tyne & Nent		
	Clints Quarry		
	Bolton Fell Moss		
	Walton Moss		
	Border Mires, Kielder-Butterburn		
	River Eden		
	Borrowdale Woodland Complex		

	Lake District High Fells		
	River Derwent & Bassenthwaite Lake		
	North Pennine Dales Meadows		
	North Pennine Moors		
	Subberthwaite, Blawith & Torver Low Commons		
	Asby Complex		
	River Ehen		
	Naddle Forest		
	Wast Water		
	Duddon Mosses		
	Morecambe Bay		
Greater Manchester	Rochdale Canal	Peak District Moors (South Pennine Moors Phase 1)	None identified
	South Pennine Moors	South Pennine Moors Phase 2	
	Manchester Mosses		
Humber	Lower Derwent Valley	Hornsea Mere	Lower Derwent Valley
	Thorne Moor	Lower Derwent Valley	Humber Estuary
	River Derwent	Flamborough Head & Bempton Cliffs	
	Flamborough Head	Humber Estuary	
	Humber Estuary	Thorne & Hatfield Moors	
	Hatfield Moor		
Lancashire	Morecambe Bay Pavements	Leighton Moss	Ribble & Alt Estuaries
	Calf Hill & Cragg Woods	Martin Mere	Leighton Moss
	South Pennine Moors	Ribble & Alt Estuaries	Martin Mere
	Morecambe Bay	Bowland Fells	Morecambe Bay
	North Pennine Dales Meadows	Morecambe Bay	
		South Pennine Moors Phase 2	
		Liverpool Bay	

Leeds City Region	Lower Derwent Valley	Lower Derwent Valley	Lower Derwent Valley
	River Derwent	North Pennine Moors	Malham Tarn
	Kirk Deighton	Peak District Moors (South Pennine Moors Phase 1)	
	Denby Grange Colliery Ponds	South Pennine Moors Phase 2	
	Ingleborough Complex		
	South Pennine Moors		
	Strensall Common		
	North Pennine Dales Meadows		
	North Pennine Moors		
	Craven Limestone Complex		
	Skipwith Common		
Liverpool City Region	Dee Estuary	Mersey Estuary	Ribble & Alt Estuaries
	Sefton Coast	Ribble & Alt Estuaries	Mersey Estuary
		The Dee Estuary	Mersey Narrows & North Wirral Foreshore
		Mersey Narrows & North Wirral Foreshore	
		Liverpool Bay	
North Eastern	Moor House-Upper Teesdale	Farne Islands	Holburn Lake & Moss
	River Tweed	Holburn Lake & Moss	Lindisfarne
	Tweed Estuary	Lindisfarne	Teesmouth & Cleveland Coast
	Newham Fen	Teesmouth and Cleveland Coast	Northumbria Coast
	Thrislington	Northumbria Coast	Irthinghead Mires
	Ford Moss	Coquet Island	
	Berwickshire & North Northumberland Coast	North Pennine Moors	
	North Northumberland Dunes		
	Castle Eden Dene		
	Durham Coast		
	Border Mires, Kielder-Butterburn		

	River Eden		
	Simonside Hills		
	Harbottle Moors		
	North Pennine Dales Meadows		
	North Pennine Moors		
	Tyne & Allen River Gravels		
	Roman Wall Loughs		
Sheffield	Thorne Moor	Peak District Moors (South Pennine Moors Phase 1)	None identified
	Peak District Dales	Thorne & Hatfield Moors	
	Bees Nest & Green Clay Pits		
	Gang Mine		
	South Pennine Moors		
	Hatfield Moor		
Tees Valley	North York Moors	North York Moors	Teesmouth and Cleveland Coast
		Teesmouth and Cleveland Coast	
York, North Yorkshire and East Riding	Lower Derwent Valley	Hornsea Mere	Lower Derwent Valley
	Fen Bog	Lower Derwent Valley	Humber Estuary
	Thorne Moor	North York Moors	Malham Tarn
	River Derwent	Flamborough Head & Bempton Cliffs	
	Kirk Deighton	North Pennine Moors	
	North York Moors	Humber Estuary	
	Ox Close	South Pennine Moors Phase 2	
	Ingleborough Complex	Thorne & Hatfield Moors	
	Beast Cliff-Whitby (Robin Hood's Bay)		
	Arnecliff & Park Hole Woods		
	Flamborough Head		
	South Pennine Moors		
	Strensall Common		

	North Pennine Dales Meadows		
	North Pennine Moors		
	Ellers Wood & Sand Dale		
	Humber Estuary		
	Craven Limestone Complex		
Natura 2000 sites within 20km of the STP area boundary.	Shell Flat and Dune Leap	Castleloch, Lochmaben	Castleloch, Lochmaben
	Saltfleetby- Theddlethorpe Dune and Gibraltar Point	Langholm- Newcastleton Hills	Greenlaw Moor
	Birklands and Bilhaugh	Greenlaw Moor	Din Moss-Hoselaw Loch
	Pasturefields salt marshes	St Abbs Head to Fast Castle	
	West Midlands mosses		
	Cannock Chase		
	Fenns, Whixall, Bettisfield, Wem and Cadney Mosses		
	Solway Mosses North		
	Raeburn Flow		
	River Tweed		
	Dogden Moss Skipwith Common		

This HRA is a record of the assessment of 'likely significant effects' from the TfN STP on the 130 European sites listed above. Information regarding their location, reasons for designation has not been included at this stage. Further details regarding the conservation objectives and site vulnerabilities and threats are provided in Appendix A.

3.5. Obtaining Information on the European Sites with the Potential to be Affected

Information on the vulnerabilities of all European sites identified, was obtained from the Joint Nature Conservation Committee (JNCC) website⁶.

3.6. Assessing the Impacts of the Plan 'Alone' and 'In-Combination'

Following the gathering of information on the TfN STP and the European sites, an assessment was undertaken to predict the likely significant effects of the TfN STP on the European sites 'alone'. In order to inform this process, the TfN STP was assessed to see if they could result in likely significant effects on the European sites.

Following the gathering of information on the Plan and the international sites an assessment has been undertaken to predict the likely significant effects of the Plan on the international sites 'alone'. In order to inform this process, all parts of the Plan were assessed to see if they could result in likely significant effects on the international sites. This HRA assesses each of the Spatial Strategy, Development Policies and Sub Area Policies, as well as the objectives that support the policies.

Each of the principles, spatial themes and accompanying interventions (interventions which may lead to new infrastructure, improved access across the region or new development) have been examined to see if the TfN STP could have a likely significant effect on the integrity of the European sites. However, as the STP is at a strategic level (i.e. the new infrastructure, extent of improvements to existing transport links, associated development that may arise as a result these interventions is unknown at this stage), the HRA has also been undertaken at a strategic level.

Although impacts from an individual project or plan may have no likely significant effect on a European site, cumulative impacts from other plans and projects may result in an 'in combination' effect on one or more interest features of the European site. Although impacts from an individual project or plan may have no likely significant effect on a European site, cumulative impacts from other plans and projects may result in an 'in combination' effect on one or more interest features of the European site. Examples of how these in-combination effects may occur is summarised in Table 3-2 below.

Table 3-2 – Examples of Potential In-combination Effects

Example Plans and Projects	Potential In-combination Effects
Local Core Strategies and Allocation Plans	<ul style="list-style-type: none">• Direct land take;• Hydrology changes;• Water quality;• Air quality;• Noise;• Lighting;• Recreation.
Local Transport Plans	
Nationally Significant Infrastructure Projects and associated developments	

Likely significant effects by these means must also be considered, however, at this stage as TfN STP covers the whole of the north of England which has identified 130 European sites. The TfN STP is a very high level plan which provides no detail or outline of any development proposals or the details of where development may be located other than general areas, their design and/or when (or if) these sites will be constructed.

⁶ <http://jncc.defra.gov.uk>

Therefore, it is recommended that ‘in combination’ assessment is undertaken at a lower tier when further details are known.

The Strategic Transport Plan seeks to protect European sites (through text under the ‘TfN’s principle for Pan-Northern Transport Investment’ on page 86 – 87 of the Strategic Transport Plan) which states that any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, or, as a last resort, compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. Therefore, should infrastructure development arise from the interventions, the need for HRA will be highlighted and undertaken at the development management stage.

Likely significant effects are assessed by reference to the conservation objectives of the qualifying feature (interest feature) of the international site. Any plan or project that causes the cited interest features of a site to fall into unfavourable condition can be considered to have a likely significant effect on the site. Stage 1 of the HRA process does not assess effects on the integrity of international sites (this forms Stage 2 of the HRA process). However the definition of integrity provided below has been taken into account during the assessment of likely significant effects:

“...the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified.”

Plans or projects can adversely affect a site by:

- Causing delays in progress towards achieving the conservation objectives of the site;
- Interrupting progress towards achieving the conservation objectives of the site;
- Disrupting those factors that help to maintain the favourable conditions of the site; and
- Interfering with the balance, distribution and density of key species that are the indicators of the favourable condition of the site.

HRA is an iterative process. Where necessary, suggestions can be made of how to amend the Strategy to avoid likely significant effects on a European site. This iterative approach has been adopted as part of this assessment and recommendations that were submitted to TfN have been included in the TfN STP.

4. Stage 1 – Screening Results

The findings of the Stage 1 – Screening for the European sites under consideration are provided in Table 4-1 below. Justification for the conclusions drawn below is provided in **Appendix B**.

Table 4-1 - Results of the HRA Stage 1 – Screening

Site Designation	Sites List in Table 3-1
<p>Describe the individual elements of the TFN STP likely to give rise to impacts on the European sites</p>	<p>The four strategic objectives and seven strategic development corridors policies focus on the need for improvements to existing infrastructure, creation of new transport links by the development of new infrastructure, and improved (i.e. faster and more efficient) connectivity across the North of England.</p> <p>As such the objectives or policies will lead to development and will not lead directly to new infrastructure or any associated impacts, therefore none of the objectives or policies will lead to likely significant effects on the European Sites identified.</p> <p>Any proposed future development associated with the Plan would have to take into account the possibility of likely significant effects on the qualifying features of the European sites.</p> <p>The Plan also contains a commitment to protect European sites, important habitats and species. The principle ensures that any potential infrastructure project is adequately assessed for likely significant effects on European sites. The TFN STP states the following:</p> <p><i>“87. The Strategic Transport Plan and Investment Programme recognises the importance of all these sites and TfN are committed to work with Partners to avoid and/or minimise any adverse impacts on important nature conservation sites as far as possible. Any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, and/or compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. This would include for European designated sites (including Ramsar sites), when necessary, Habitats Regulation Assessment”.</i></p> <p>Therefore, there are no likely significant effects on the qualifying features of the European sites from the Plan alone.</p>
<p>Provisions included within the TFN STP to protect European sites</p>	<p>Text within the TfN STP: ‘TfN’s principle for Pan-Northern Transport Investment’ Environmental Responsibility seeks solely to protect European sites, important habitats and species. The principle ensures that any potential infrastructure project is adequately assessed for likely significant effects on European sites. The TFN STP states the following:</p> <p><i>“87. The Strategic Transport Plan and Investment Programme recognises the importance of all these sites and TfN are committed to work with Partners to avoid and/or minimise any adverse impacts on important nature conservation sites as far as possible. Any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, and/or compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. This would include for European designated sites (including Ramsar sites), when necessary, Habitats Regulation Assessment”.</i></p> <p>The TFN STP seeks to protect European sites and avoid adverse effects on the integrity of European sites through the HRA process. HRA of any new infrastructure projects will need to satisfy relevant</p>

	<p>local planning authority (in consultation with Natural England) that there will be no adverse effect on the integrity of the European sites. Any adverse effects on integrity must be effectively mitigated and/or compensatory measures provided, as appropriate.</p> <p>Whilst it is not directly connected to European Site the TfN STP on page 86 also states:</p> <p><i>the pan-Northern transport objectives, and will be developed over time to ensure TfN's Investment Programme becomes an exemplar in how it:</i></p> <ul style="list-style-type: none"> • <i>Explores opportunities for 'green' and 'blue' infrastructure to enhance landscapes and habitats, and support a net gain in biodiversity where possible.</i>
<p>Describe any likely direct, indirect or secondary impacts of the TFN STP on the European sites by virtue of:</p> <ul style="list-style-type: none"> • Size and scale; • Land take; • Resource requirements (i.e. water extraction etc.); • Emissions (disposal to land, water or air); • Excavation requirements; • Duration of construction, operation, decommissioning etc.; and • Other. 	<p>There are no likely direct, indirect or secondary impacts on the qualifying features of European sites from any of the objectives or policies in the TfN STP (see Table B-2 in Appendix B below).</p>
<p>Describe any likely changes to the European sites arising as a result of:</p> <ul style="list-style-type: none"> • Reduction of habitat area; • Disturbance to key species; • Habitat or species fragmentation; • Reduction in species density; • Changes in key indicators of conservation value (e.g. water quality); and • Climate change 	<p>There are no likely changes to the qualifying features of European sites from the objectives or policies of the TfN STP (see Table B-2 in Appendix B below).</p>
<p>Describe from the above those elements of the project, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known</p>	<p>There are no likely significant effects on the European sites from the Plan alone (see above).</p>

5. Conclusions

Atkins Limited (Atkins) has been commissioned by Transport for the North (TfN) to undertake a Stage 1 of the Habitats Regulations Assessment process (Screening) in relation to the Transport for the North's Strategic Transport Plan (STP).

Habitats Regulations Assessment (HRA) is required by Regulation 61 of the Conservation of Habitats and Species Regulations 2010 (as amended) for all plans and projects which may have likely significant effects on European sites. This Stage 1 – Screening assesses whether the TFN STP is likely to lead to significant effects on the European sites listed in Table 3-1.

This HRA has assessed whether the four strategic objectives and the seven Strategic Development Corridors set out within the TfN STP are likely to lead to significant effects on these European sites and what these likely impacts are. None of the objectives or Strategic Development Corridors will directly lead to development.

Due to the strategic nature of the TfN STP, the objectives and policies set out are high level only broadly defining the objectives and policy and providing no detail of potential projects that may result at a later stage.

The Strategic Transport Plan and Investment Programme seeks to protect European sites (through text under the 'TfN's principle for Pan-Northern Transport Investment' on page 86 – 87 of the Strategic Transport Plan). Any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, or, as a last resort, compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. Therefore, should infrastructure development arise from the interventions, the need for HRA will be highlighted and undertaken at the development management stage.

The assessment has concluded that the TfN STP will not have any likely significant effects on the European sites to which this document relates.

Appendices



Appendix A. European Sites Conservation Objectives and Site Vulnerabilities

A.1. European Sites Conservation Objectives

Table A-1 – SAC and SPA Conservation Objectives

European Site Designation	Site Name	Conservation Objectives
		Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring
SAC	Arnecliff & Park Hole Woods	<ul style="list-style-type: none">The extent and distribution of qualifying natural habitats and habitats of qualifying speciesThe structure and function (including typical species) of qualifying natural habitatsThe structure and function of the habitats of qualifying speciesThe supporting processes on which qualifying natural habitats and the habitats of qualifying species relyThe populations of qualifying species, and,The distribution of qualifying species within the site.
	Asby Complex	
	Bees Nest & Green Clay Pits	
	Berwickshire & North Northumberland Coast	
	Craven Limestone Complex	
	Dee Estuary	
	Drigg Coast	
	Ellers Wood & Sand Dale	
	Humber Estuary	
	Moor House-Upper Teesdale	
	Morecambe Bay	
	Morecambe Bay Pavements	
	Peak District Dales	
	River Derwent	
	River Derwent & Bassenthwaite Lake	
	River Eden	
	River Kent	
	Roman Wall Loughs	
	Sefton Coast	
	Tweed Estuary	
	Beast Cliff-Whitby (Robin Hood's Bay)	<ul style="list-style-type: none">The extent and distribution of qualifying natural habitatsThe structure and function (including typical species) of qualifying natural habitats, andThe supporting processes on which the qualifying natural habitats rely
	Birklands and Bilhaugh	
	Bolton Fell Moss	
	Borrowdale Woodland Complex	
	Calf Hill & Cragg Woods	
	Cannock Chase	
	Castle Eden Dene	
	Dogden Moss	
	Harbottle Moors	
	Fenns, Whixall, Bettisfield, Wem and Cadney Mosses	
	Ford Moss	
	Gang Mine	
	Ox Close	
	Pasturefields salt marshes	
	Roudsea Wood & Mosses	
	Saltfleeby- Theddlethorpe Dune and Gibraltar Point	
	Shell Flat and Lune Deep	
	Simonside Hills	

	Skipwith Common	
	Solway Mosses North	
	South Pennine Moors	
	South Solway Mosses	
	Strensall Common	
	Subberthwaite, Blawith & Torver Low Commons	
	Tarn Moss	
	Thorne Moor	
	Thrislington	
	Tyne & Allen River Gravels	
	Tyne & Nent	
	Ullswater Oakwoods	
	Walton Moss	
	Wast Water	
	West Midlands Mosses	
	Witherslack Mosses	
	Yewbarrow Woods	
	Border Mires, Kielder-Butterburn	<ul style="list-style-type: none"> The extent and distribution of qualifying natural habitats The structure and function (including typical species) of qualifying natural habitats, and The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
	Duddon Mosses	
	Durham Coast	
	Fen Bog	
	Flamborough Head	
	Hatfield Moor	
	Helbeck & Swindale Woods	
	Ingleborough Complex	
	Manchester Mosses	
	Naddle Forest	
	Newham Fen	
	North Pennine Dales Meadows	
	North York Moors	
	Oak Mere	
	Clints Quarry	<ul style="list-style-type: none"> The extent and distribution of the habitats of qualifying species The structure and function of the habitats of qualifying species The supporting processes on which the habitats of qualifying species rely The populations of qualifying species, and, The distribution of qualifying species within the site.
	Cumbrian Marsh Fritillary Site	
	Denby Grange Colliery Ponds	
	Kirk Deighton	
	Rixton Clay Pits	
	Rochdale Canal	
	Lake District High Fells	<ul style="list-style-type: none"> The extent and distribution of qualifying natural habitats and habitats of qualifying species The structure and function (including typical species) of qualifying natural habitats The structure and function of the habitats of qualifying species The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely The populations of qualifying species, and, The distribution of qualifying species within the site.
	Lower Derwent Valley	
	North Northumberland Dunes	
	North Pennine Moors	
	River Tweed	
	Solway Firth	
	Deeside and Buckley Newt sites	Conservation Objective for Feature 1: Great crested newt

		<ul style="list-style-type: none"> • No less than 600 great crested newts will be present on the site • At least 50 display/breeding ponds will be found throughout the entire site • Great crested newt larvae will be found in 25 or more of the breeding ponds • Half of the display/breeding ponds on the site will have a water depth of 10cm or more during the summer months. • Native macrophytes will cover at least half of the pond surface yet some of the water surface (40%) will still remain open. • Aquatic marginal vegetation will be present around the ponds • Breeding/display ponds will not be heavily shaded by surrounding vegetation • Algal blooms and surface sheens will be absent from display/breeding ponds • Fish will not be present in breeding/display ponds which support great crested newts • Only small numbers of water and wildfowl will be seen on the ponds • The terrestrial habitat surrounding breeding ponds will comprise of refuge areas for newts, foraging areas, areas of hibernacula and corridors which will aid the dispersal of great crested newts • Off site habitats that function as stepping stone or corridors located between SAC compartments will be maintained for migration, dispersal, foraging and genetic exchange purposes • Off-site features that impact on successful dispersal, such as roadside gully-pots, will not be subject to future construction • Non-native aquatic species will not be present • Amphibian chytridiomycosis will not be present • All factors affecting the achievement of the foregoing conditions are under control. <p>Conservation Objective for Feature 2: Old sessile oak woods with Ilex and Blechnum in the British Isles</p> <ul style="list-style-type: none"> • Old sessile oak woodland will occupy at least 10% of the total site area • The woodland is maintained as far as possible by natural processes • The trees and shrubs are mainly native broadleaved species dominated by oak with some, birch, alder and ashThe occasional sycamore may be present but will not become dominant anywhere in the canopy or the under-storeyBeech and conifer species will be largely absent from the canopy, under-storey and the woodland as a whole • The abundance of individual native tree species will vary throughout the woodland. There may be dense stands of one species or mixture of several species occupying a given area at any one time • Existing canopy gaps which occur over great crested newt ponds will be maintained, and supplemented by a changing patchwork of naturally occurring pattern of gaps and temporary glades which will give rise to structural diversity • The woodland will contain trees and shrubs of all ages and sizes, as a mixture or in single aged groups • Plentiful native tree seedlings throughout the site will develop into saplings in the open glades • The field and ground layers will contain such species as ivy, bramble, honeysuckle, broad-buckler fern, male fern and greater wood-rush • Exotic species such as rhododendron and cherry laurel will not be tolerated within the woodland • There will be abundant dead and dying trees with holes and hollows, rot columns, torn off limbsand rotten branches throughout the woodland • All factors affecting the achievement of these conditions are under control
	Halkyn Mountain / Mynydd Helygain	<p>Conservation Objective for Feature 1: Calaminarian grassland of the Violetalia calaminariae type</p> <ul style="list-style-type: none"> • There will be no overall decline in the extent of this feature and where possible, opportunities will be sought to increase its extent, subject to the provision of suitable substrate, delivered for example through quarry restoration schemes. • This habitat will support Minuartia verna and Festuca ovina along with common vascular plant such as Plantago lanceolata, Rumex acetosa, Thymus praecox and Euphrasia spp. • This habitat will support a prominent suite of bryophyte and lichen species: Lichen flora within this habitat will comprise a constant assemblage of generally common calcicole species. Ubiquitous elements will include the macro lichens Cladonia rangiformis, C. pocillum, Peltigera rufescens and the crustose lichen Bacidia sabuletorum. The small acrocarps Bryum pallens, Dicranella varia and Weissia controversa will also be very common bryophytes within the calaminarian grassland community forming low crusts with species of lichen and algae. • The nationally scarce bryophyte Bryum pallescens will also be a common plant in this habitat. • This habitat will support small areas of bare ground • The sward height will be less than 5cm high. • Where possible, areas of this habitat will be fenced to allow the control of access and grazing levels otherwise uncontrolled on the urban common. • There will be an absence of taxa indicative of more mesotrophic, less toxic environmental conditions. • As far as is practically possible, factors affecting the achievement of the foregoing conditions are under control <p>Conservation Objective for Feature 2: European dry heath</p>

		<ul style="list-style-type: none"> • The heath communities are typified by a closed canopy dominated by a mixture of ericaceous shrubs such as bell heather and ling heather together with western gorse. Bilberry and Wavy hair grass will also prevail through the H12 and H18 communities. • European dry heath will cover c. 20% of the site and opportunities will be sought to increase its extent for example through quarry restoration schemes. • Opportunities will be sought where appropriate to improve the species diversity of existing stands. • As far as is practically possible, factors affecting the achievement of the foregoing conditions are under control <p>Conservation Objective for Feature 3: Semi – natural dry grassland and scrubland facies on calcareous substrates</p> <ul style="list-style-type: none"> • There will be no overall decline in the extent of this feature and opportunities will be sought to increase its extent for example through quarry restoration schemes and bracken control programmes. • The calcareous grassland sward will support forbs such as Carex spp., Gallium verum, Helianthemum nummularium, Lotus corniculatus, Pilosella officinarum, Polygala vulgaris, Sanguisorba minor, Thymus praecox along with characteristic grasses such as Briza media, Festuca ovina and Koeleria macrantha. • The CG1 community, owing to its open character, might also encompass frequent small areas of bare ground and exposed rock along with a moderate cover of terricolous lichens and acrocarpous mosses. • Uncommon vascular plants, including the locally scarce Ophioglossum vulgatum, Botrychium lunaria, Gentianella marelle and Cirsium acaule, will continue to prevail at favoured locations within this habitat. • There will be an absence of taxa indicative of more mesotrophic, environmental conditions within this habitat. • Agriculturally favoured species such as Holcus lanatus, Lolium perenne and Trifolium repens will be rare or absent within this habitat. • Bracken and tree/scrub species will be rare or absent within this habitat. • The cover of rank grassland species such as Arrhenatherum and Dactylis glomerata within this habitat will be nominal. • There will be an absence of introduced species (e.g. non-native cotoneaster) • As far as is practically possible, factors affecting the achievement of the foregoing conditions are under control. <p>Conservation Objective for Feature 4: Molinia meadows on calcareous peaty or clayey-silt-laden soils (Molinion caeruleae)</p> <ul style="list-style-type: none"> • Purple moor grass and short sedges such as tawny sedge, flea sedge, carnation sedge, common sedge and glaucous sedge will be frequent throughout the sward. Species such as devil's bit scabious, tormentil, marsh valerian and black knapweed will also prevail along with the bryophytes Calliergon cuspidatum and Campylium stellatum. • The habitat will continue to support marsh orchid and fragrant orchid. • Adequate hydrological conditions are maintained to sustain this habitat in terms of water quantity and quality (much of this habitat is fed by springs issuing from base rich rock). • There will be no overall decline in the extent of this feature and opportunities will be sought to increase its extent where hydrological and edaphic factors permit. • Uncommon vascular plants, including the locally scarce Valeriana diocia, Eriphorum latifolium, Carex diocica, Parnassia palustris, Eleocharis quinqueflora, Carex lepidocarpa, and Gymnadenia conopsea continue to prevail at favoured locations within this habitat. • As far as is practically possible, factors affecting the achievement of the foregoing conditions are under control. <p>Conservation Objective for Feature 5: Great crested newt</p> <ul style="list-style-type: none"> • The site will continue to support at least 200 adult great crested newts as identified by torch surveys in the spring, in and around ponds within the pond clusters at Wern y Gaer, Pen yr Henblas, Rhos y Cae, Pant Quarry, Mount Villas, Mill Pond, Pant y Ffridd, Moel y gaer, Moel y crio, Plas Winta, Holywell Golf Course. • Terrestrial and aquatic habitats will be managed to ensure high variability and thus the availability of suitable breeding ponds, and of foraging, sheltering, dispersal and over-wintering areas. • The existing 99 ponds will be retained and restored where necessary and opportunities will be sought to deliver amphibian conservation schemes as they arise in suitable locations across the site. • At least 50% of the 46 known great crested newt breeding ponds will have a water depth of 10cm or more during the summer months. • At least 50% of the 46 known great crested newt breeding ponds will support a good cover of native macrophytes, yet at least 25% of the water surface in these ponds will still remain open to encourage display areas. • Surrounding vegetation, particularly on the southern margins, will not heavily shade breeding ponds. • Fish will not be present in any T.cristatus breeding ponds. • Water and wildfowl will not be encouraged on great crested newt breeding ponds • Invasive aquatic species such as Crassula helmsii will not be present within any ponds. Where they are currently present they will be subject to management. • No barriers to newt dispersal will be permitted, which might further fragment the site. • Refuge potential, particularly within 50metres of breeding ponds is maintained or created. A shrub layer, tussocky grassland, rushes, sedges, scrub, heaped brash all provide examples of suitable refuge habitat.
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		<ul style="list-style-type: none"> Any new roads and access tracks will not incorporate gully pots. Amphibian chytridiomycosis will not be present within great crested newt populations on the site.
	St Abbs Head to Fast Castle	<ul style="list-style-type: none"> To avoid deterioration of the of the qualifying habitats thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features. To ensure for the qualifying habitat that the following are maintained in the long term: <ul style="list-style-type: none"> Extent of the habitat on site Distribution of the habitat within site Structure and function of the habitat Processes supporting the habitat Distribution of typical species of the habitat Viability of typical species as components of the habitat No significant disturbance of typical species of habitat
	Raeburn Flow	<ul style="list-style-type: none"> To avoid deterioration of the qualifying habitats (listed below) thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and To ensure for the qualifying habitats that the following are maintained in the long term: <ul style="list-style-type: none"> Extent of the habitat on site Distribution of the habitat within site Structure and function of the habitat Processes supporting the habitat Distribution of typical species of the habitat Viability of typical species as components of the habitat No significant disturbance of typical species of the habitat
SPA	Bowland Fells	<p>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;</p> <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
	Coquet Island	
	Farne Islands	
	Flamborough Head & Bempton Cliffs	
	Humber Estuary	
	Leighton Moss	
	Lindisfarne	
	Lower Derwent Valley	
	Martin Mere	
	Mersey Estuary	
	Mersey Narrows & North Wirral Foreshore	
	Morecambe Bay & Duddon Estuary	
	North Pennine Moors	
	North York Moors	
	Northumbria Coast	
	Peak District Moors (South Pennine Moors Phase 1)	
	Ribble & Alt Estuaries	
	South Pennine Moors Phase 2	
	Teesmouth & Cleveland Coast	
	The Dee Estuary	
	Thorne & Hatfield Moors	
	Upper Solway Flats & Marshes	
	Din Moss-Hoselaw Loch	<p>To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and To ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> Population of the species as a viable component of the site

		<ul style="list-style-type: none"> • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species • No significant disturbance of the species
	Greenlaw Moor	<p>To avoid deterioration of the habitats of the qualifying species (Pink-footed goose) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and to ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species. • No significant disturbance of the species
	Holburn Lake & Moss	<p>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;</p> <ul style="list-style-type: none"> • The extent and distribution of the habitats of the qualifying features (Greylag goose) • 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
	Hornsea Mere	<p>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;</p> <ul style="list-style-type: none"> • The extent and distribution of the habitats of the qualifying features (Mute swan and Gadwall) • 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
	Liverpool Bay	<p>The interest feature red-throated diver will be considered to be in favourable condition only when both of the following two conditions are met:</p> <p>(i) The size of the red-throated diver population is at, or shows only non-significant fluctuation around the mean population at the time of designation of the SPA. To account for natural change;</p> <p>(ii) The extent of the supporting habitat within the site is maintained.</p>
	St Abbs Head to Fast Castle	<p>To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and To ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species • No significant disturbance of the species
	<div>Castleloch, Lochmaben</div> <div>Langholm- Newcastleton Hills</div>	<ul style="list-style-type: none"> • To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and • To ensure for the qualifying species that the following are maintained in the long term: <ul style="list-style-type: none"> • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species • No significant disturbance of the species

A.2. European Sites Vulnerabilities

All threats and vulnerabilities for each SAC and SPA designated site have been identified using [Natura 2000 summary data spreadsheet](#) (version UK Natura 2000_2017-01-30.zip accessed on 25th October 2017) found on the JNCC website (<http://jncc.defra.gov.uk>) . Each threat for SAC's and SPA's have a code and description, detailed in below in Table A-2. The threats have been grouped together in Table A-3 where it is considered appropriate, all codes that have been grouped are provided in the heading.

All threats and vulnerabilities for each Ramsar designated site have been identified using Ramsar summary data spreadsheet (version is 21 October 2015, filename UK_RAM SAR_DATA_20151021.xls accessed on 25th October 2017) found on the JNCC website. The adverse factor's⁷ listed were grouped where deemed appropriate with threat headings listed for SAC's and SPA's.

Table A-2 – Threat Codes for SACs and SPAs

CODE	DESCRIPTION
A01	Cultivation
A02	Modification of cultivation practices
A03	Mowing / cutting of grassland
A04	Grazing
A05	Livestock farming and animal breeding (without grazing)
A06	Annual and perennial non-timber crops
A07	Use of biocides, hormones and chemicals
A08	Fertilisation
A10	Restructuring agricultural land holding
A11	Agriculture activities not referred to above
B01	Forest planting on open ground
B02	Forest and Plantation management & use
B03	Forest exploitation without replanting or natural regrowth
B04	Use of biocides, hormones and chemicals (forestry)
B06	Grazing in forests/ woodland
B07	Forestry activities not referred to above
C01	Mining and quarrying
C02	Exploration and extraction of oil or gas
C03	Renewable abiotic energy use
D01	Roads, paths and railroads
D02	Utility and service lines
D03	Shipping lanes, ports, marine constructions
D04	Airports, flightpaths
D05	Improved access to site
E01	Urbanised areas, human habitation
E02	Industrial or commercial areas
E03	Discharges
E04	Structures, buildings in the landscape
E06	Other urbanisation, industrial and similar activities
F01	Marine and Freshwater Aquaculture
F02	Fishing and harvesting aquatic resources
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)
F04	Taking / Removal of terrestrial plants, general
F05	Illegal taking/ removal of marine fauna
F06	Hunting, fishing or collecting activities not referred to above
G01	Outdoor sports and leisure activities, recreational activities
G02	Sport and leisure structures
G03	Interpretative centres
G04	Military use and civil unrest
G05	Other human intrusions and disturbances
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)
H02	Pollution to groundwater (point sources and diffuse sources)
H03	Marine water pollution
H04	Air pollution, air-borne pollutants
H05	Soil pollution and solid waste (excluding discharges)
H06	Excess energy
H07	Other forms of pollution
I01	Invasive non-native species
I02	Problematic native species
I03	Introduced genetic material, GMO
J01	Fire and fire suppression

⁷ UK_RAM SAR_DATA_20151021.xls Adverse factors - contains summary information on significant natural or human-caused factors which have been adversely affecting Ramsar sites, and any measures being taken to address these issues, as reported to the Ramsar Secretariat. This information is sourced from the latest Ramsar UK National Report. Note that some minor factors may not be listed. The worksheet also includes Adverse factors reported previously, but which are not considered to be operating at present, or which have been addressed effectively. This information is sourced from the previous Ramsar UK National Report to provide an audit trail.

CODE	DESCRIPTION
J02	Human induced changes in hydraulic conditions
J03	Other ecosystem modifications
K01	Abiotic (slow) natural processes
K02	Biocenotic evolution, succession
K03	Interspecific faunal relations
K04	Interspecific floral relations
K05	Reduced fecundity/ genetic depression
L05	Collapse of terrain, landslide
L07	Storm, cyclone
L08	Inundation (natural processes)
L10	Other natural catastrophes
M01	Changes in abiotic conditions
M02	Changes in biotic conditions
U	Unknown threat or pressure
XO	Threats and pressures from outside the Member State

Table A-3 – Information about the negative threats, pressures and activities on international sites STP area and up to 20 km from its boundaries

Designation	Sites	Vulnerabilities / Threats ⁸																				
		No threats/vulnerabilities reported	Grazing / Mowing	Interspecific faunal and floral relations, ecosystem modifications and natural processes (including erosion ^{*9})	Fire/fire suppression	Modification of Agricultural practices	Air Pollution	Use of Fertilisers/chemicals, eutrophication [*]	Forest management and associated activities	Water pollution	Problem native/non native species	Change to hydraulic conditions, including sedimentation/siltation [*]	Changes to Abiotic and/or biotic conditions	Unknown threat or pressure	Human disturbance/Recreation (including Fishing/Hunting)	Industry and other urbanisation	Urbanisation (Roads, paths, railroads and utilitie	Mining and quarrying	Renewable energy use	Military activities	Other forms of pollution	Soil pollution and solid waste
Threat codes		N/A	A03,A04	K01-K05, J03,	J01	A01,A02, A05,A11	H04	B04, A07, A08,	B02, B07	H01-H03	I01, I02	J02	M01, M02	U	G01-G05, F01-F05	E02, E04, E06	D01, D02	C01	C03	G04	H07	H05
SAC	Arnecliff & Park Hole Woods						B ¹⁰		I		B											
SAC	Asby Complex					II				B	B	B										
SAC	Bees Nest & Green Clay Pits						B															
SAC	Beast Cliff-Whitby (Robin Hood's Bay)		I									B										
SAC	Berwickshire & North Northumberland Coast									B	B	B			II							
SAC	Birklands and Bilhaugh					I	B					B			I	B						
SAC	Bolton Fell Moss			I								B	B									
SAC	Border Mires, Kielder-Butterburn					I	B		I			B	B									
SAC	Borrowdale Woodland Complex		I	I			B		I		B											
SPA	Bowland Fells			I	I								B		I							
SAC	Calf Hill & Cragg Woods						B															
SAC	Cannock Chase		I				B					B										

⁸ Threats and Vulnerabilities have been taken from [Natura 2000 summary data spreadsheet](#) found on the JNCC website <http://jncc.defra.gov.uk/page-1461> for SAC and SPA and from [Download Ramsar summary data spreadsheet](#) found on the JNCC website (<http://jncc.defra.gov.uk/page-2392>) These have been groups together where seemed appropriate.

⁹ Those threats that have asterisk only apply to Ramsar sites.

¹⁰ Threats, pressures and activities upon SACs and SPA are marked with an I, B or O. having an impact when occurring inside (I), outside (O) or both (both) for SAC and SPA.

SAC	Castle Eden Dene						B		I		BB										
SPA	Castleloch, Lochmaben																	B			
SAC	Clints Quarry										B			I							
SPA	Coquet Island			I						BB		B		II							
SAC	Craven Limestone Complex		I						B		B	B									
SAC	Cumbrian Marsh Fritillary Site			BI																	
SAC	Dee Estuary									B		BB		I							
SAC	Deeside and Buckley Newt sites		i	BB			B		I		BI										B
SAC	Denby Grange Colliery Ponds			B					I	B	B	B									
SPA	Din Moss-Hoselaw Loch											B						B		B	
SAC	Dogden Moss		I		I		B				B	B	B			B	B	B			
SAC	Drigg Coast		I	I			B														
Ramsar	Duddon Estuary		x ¹¹	x			x		x					x	x						
SPA	Duddon Estuary			I			B							I							
SAC	Duddon Mosses			I			B				B	B	B								
SAC	Durham Coast			I				B			BB	B		I							
SAC	Ellers Wood & Sand Dale						B						B								
Ramsar	Esthwaite Water																				
SPA	Farne Islands			I							B		B		II						
SAC	Fen Bog		I	I			B				B			I							
SAC	Fenns, Whixall, Bettisfield, Wem and Cadney Mosses		I	I			B			B		B									
SAC	Flamborough Head										B		B		II						
SPA	Flamborough Head & Bempton Cliffs			I							B		B		BI						
pSPA	Flamborough Head Extension																				

¹¹ Threats, pressures and activities upon each Ramsar are marked with an X

SAC	Ford Moss						B		I			B										
SAC	Gang Mine						B															
pSPA	Greater Wash																					
SPA	Greenlaw Moor																	B				
Ramsar	Greenlaw Moor	X																				
SAC	Halkyn Mountain / Mynydd Helygain																					
SAC	Harbottle Moors						B				B				I							
SAC	Hatfield Moor			I			B				B	B			I							
SAC	Helbeck & Swindale Woods			I			I	I														
Ramsar	Holburn Lake & Moss																					
SPA	Holburn Lake & Moss			I								B	B									
Ramsar	Holburn Lake and Moss	x																				
SPA	Hornsea Mere									B		B			I							
Ramsar	Humber Estuary		x	x				x		x		x			x							
SAC	Humber Estuary			I						B		B	B			O						
SPA	Humber Estuary			I							B		BB		I							
SAC	Ingleborough Complex		I	I		I	B					B										
Ramsar	Irthinghead Mires	x																				
SAC	Kirk Deighton			B		I																
SAC	Lake District High Fells		I				B				B		B		I							
SPA	Langholm- Newcastleton Hills		I	B											I							
Ramsar	Leighton Moss							x		x		x										
SPA	Leighton Moss									B	B	B	B									
Ramsar	Lindisfarne							x		x	x	x										
SPA	Lindisfarne			I						B	B		B		I							
SPA	Liverpool Bay											B			I		B	B				
pSPA	Liverpool Bay Extension																					

Ramsar	Lower Derwent Valley											x water diversio n/reserv oir/dam/f looding										
SAC	Lower Derwent Valley		I	I			I				B				I							
SPA	Lower Derwent Valley		I	B							B	B			I							
SAC	Manchester Mosses						B					B										
Ramsar	Martin Mere	x																				
SPA	Martin Mere									B	B	B										
Ramsar	Mersey Estuary	x																				
SPA	Mersey Estuary										B		B		I							
Ramsar	Mersey Narrows & North Wirral Foreshore			x										x	x							
SPA	Mersey Narrows & North Wirral Foreshore										B		BB		I							
Ramsar	Midland Meres & Mosses - Phase 1							x			x					x						
Ramsar	Midland Meres & Mosses Phase 2							x			x											
SAC	Moor House-Upper Teesdale		I	I	I	I																
Ramsar	Morecambe Bay														x							
SAC	Morecambe Bay						B								II							
SPA	Morecambe Bay			I									B		II							
SPA	Morecambe Bay and Duddon Estuary ¹²																					
SAC	Morecambe Bay Pavements		I	I					I		B											
SAC	Naddle Forest						B				B											
SAC	Newham Fen						B															
SAC	North Northumberland Dunes			I						B	B		B		I							

¹² No threats are available as this is currently under consideration for designation, refer to Morecambe Bay SPA and Duddon Estuary SPA for threats.

SAC	North Pennine Dales Meadows																					
SAC	North Pennine Moors		I	I	I	I						B										
SPA	North Pennine Moors		I	I	I							B			I							
SAC	North York Moors			I	I		B				B		B									
SPA	North York Moors				I		B				B		B		I							
Ramsar	Northumbria Coast	x																				
SPA	Northumbria Coast									B		B	B		II							
SAC	Oak Mere						B			B	B	B										
SAC	Ox Close		I	I					I		B	B										
SAC	Pasturefields salt marshes	X																				
SAC	Peak District Dales		I	I				B		B		B										
SPA	Peak District Moors (South Pennine Moors Phase 1)			I	I							B			II							
SAC	Raeburn Flow		I		I		B		I		B	B	B			B	B	B				
Ramsar	Ribble & Alt Estuaries		x	x			x			x					x			x		x		
SPA	Ribble & Alt Estuaries			I			B				B	B	B									
SAC	River Derwent					I				B	B	B										
SAC	River Derwent & Bassenthwaite Lake									B	B	B										
SAC	River Eden					I				B	BB	B	B									
SAC	River Kent					I				I	I	I										
SAC	River Tweed									B	B	B										
SAC	Rixton Clay Pits														I							
SAC	Rochdale Canal						B					B										
SAC	Roman Wall Loughs									B	B			O								
Ramsar	Rostherne Mere							x			x											
SAC	Roudsea Wood & Mosses			I					I		B	B	B									
SAC	Saltfleeby- Theddlethorpe Dune and Gibraltar Point					I	B					B		O								

SAC	Sefton Coast			B			B				B	B	B								
SAC	Shell Flat and Lune Deep											B			I		B	B			
SAC	Simonside Hills					I					B	I			II						
SAC	Skipwith Common			I			B					B			I						
SAC	Solway Firth		I												I				B		
SAC	Solway Mosses North		I		I		B		B		B	B	B			B	B	B			
SAC	South Pennine Moors				I	B	B					B			I						
SPA	South Pennine Moors Phase 2			I	I							B			II						
SAC	South Solway Mosses						I				I	I									
SPA	St Abbs Head to Fast Castle			B					B		B		B		I						
SAC	St Abbs Head to Fast Castle		I	I		I	B				B	B	B		I		B	B		B	B
SAC	Strensall Common			I			B								I						
SAC	Subberthwaite, Blawith & Torver Low Commons					I	B					B			II						
SAC	Tarn Moss						I		I	I	I										
Ramsar	Teesmouth and Cleveland Coast							x													
SPA	Teesmouth and Cleveland Coast								B		B				II	O					
Ramsar	The Dee Estuary			x							x				x	x (pollution)					
SPA	The Dee Estuary										B		B		I						
SPA	Thorne & Hatfield Moors														I	B (only E06)					
SAC	Thorne Moor			I			B				B	B			I						
SAC	Thrislington						B						B	O							
SAC	Tweed Estuary								B		B	B			II						
SAC	Tyne & Allen River Gravels			I			B				B										
SAC	Tyne & Nent			II			B							O	I						
SAC	Ullswater Oakwoods		I				I		I		I										

Ramsar	Upper Solway Flats & Marshes	x																				
SPA	Upper Solway Flats & Marshes ¹³		I									B						B				
SAC	Walton Moss					I	B					B										
SAC	Wast Water					I	B			B	B		B									
SAC	West Midlands Mosses			I			B			B		B			I							
SAC	Witherslack Mosses			I			B				B	B										
SAC	Yewbarrow Woods		I	I							B											

¹³ Upper Solway Flats and Marshes SPA has been extended and renamed Solway Firth pSPA, it is included in this assessment as it is still listed on JNCC website.

Appendix B. Findings of Stage 1 – Screening Assessment

B.1. HRA Results Tables

This appendix contains Tables B1 and B2 (see below) which summarise the broad interventions that apply to the TfN STP. The results determine whether the interventions are considered to have a likely significant effect on the European sites. The likely significant effects take into account the measures in the TFN STP which seek to protect European sites.

- Policy Type 1: Policies that will not themselves lead to development (e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy);
- Policy Type 2: Policies intended to protect the natural environment, including biodiversity;
- Policy Type 3: Policies intended to conserve or enhance the natural, built or historic environment, where enhancement measures will not be likely to have any negative effect on a International site; and
- Policy Type 4: Policies that positively steer development away from International sites and associated sensitive areas.

This has been based on The Habitats Regulations Assessment of Regional Spatial Strategies and sub-Regional Strategies (Draft Guidance) produced by Natural England in March 2007

Where possible, interventions have been categorised into sub policy types based on Natural England published guidance¹⁴, as summarised below.

Table B-4 – Categories of Potential Effects of Land-Use Plans on European Sites

Category	Sub Category	Description
A – no negative effect	A1	Policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.
	A2	Policies intended to protect the natural environment, including biodiversity.
	A3	Policies intended to conserve or enhance the natural, built or historic environment, where enhancement measures will not be likely to have any negative effect on a European site.
	A4	Policies that positively steer development away from European sites and associated sensitive areas.
	A5	Policies that would have no effect because no development could occur through the policy itself, the development being implemented through later policies in the same plan, which are more specific and therefore more appropriate to assess for their effects on European sites and associated sensitive areas.
B – no significant effect	N/A	Policies that could have a negative effect but would not be likely to have a significant effect on a European site alone or in combination with other plans or projects.
C – likely significant effects alone	C1	The policy could directly affect a European site because it provides for, or steers, a quantity or type of development onto a European site, or adjacent to it.
	C2	The policy could indirectly affect an European site e.g. because it provides for or steers, a quantity or type of development that may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressures.

¹⁴ The Habitat Regulations Assessment of Local Development Projects (Revised Draft Guidance) (David Tyldesley & Associates for Natural England, February 2009).

	C3	Proposals for a magnitude of development that no matter where it was located, the development would be likely to have a significant effect on a European site.
	C4	A policy that makes provision for a quantity / type of development but the effects are uncertain because the detailed location of the development is to be selected following consideration of options at a later, more specific plan .
	C5	Policies for developments or infrastructure projects that could block options or alternatives for the provision of other development or projects in the future which will be required in the public interest that may lead to adverse effects on European sites, which would otherwise be avoided.
	C6	Policies which depend on how the policies etc are implemented in due course. There is a theoretical possibility that if implemented in one or more particular ways the proposals could possibly have a significant effect on a European site.
	C7	Any policies that would be vulnerable to failure under the Habitat Regulations at project assessment stage to include them in the plan would be regarded by the EC as 'faulty planning'.
	C8	Any other proposal that may have an adverse effect on a European site which might try to pass the tests of the Habitat Regulations at project assessment stage by arguing that the plan provides the imperative reasons of overriding public interest to justify its consent despite a negative assessment.
D – likely significant effects in combination	D1	The policy alone would not be likely to have significant effects but if its effects are combined with the effects of other policies or proposals provided for or coordinated by the LDD (internally) the cumulative effects would be likely to be significant.
	D2	Policies that alone would not be likely to have significant effects but if their effects are combined with the effects of other plans or projects and possibly the effects of other developments provided for in the LDD as well the combined effects would be likely to be significant.
	D3	Policies that are or could be part of a programme or sequence of development delivered over a period where the implementation of the early stages would not have a significant effect on the location, timing of the whole project, the later stages of which could have an adverse effect on such sites.

The above guidance sets out criteria to assist with the screening process and addresses the management of uncertainty in the assessment process. Proposals falling within categories A and B are considered not to have an effect on a European site and can be eliminated from the assessment procedure. Proposals falling within category C and category D require further analysis, including the consideration of 'in-combination' effects to determine whether they should be included in the next stage of the HRA process.

Table B-5 – HRA Stage 1 Screening Findings for Objectives and Principles

TfN Strategic Transport Plan Objectives			
Objective	Broad Interventions	Will the broad interventions lead to likely significant effects on the European sites?	Justification of Findings
<p>Transforming economic performance</p> <p><i>To secure investment in transport between economic centres and assets to support transformation of the North’s economic performance. This objective focuses on addressing the challenges identified in the NPIER and securing investment in transport interventions that improve productivity across the North and delivers agglomeration benefits between the North’s important economic centres and assets, both rural and urban.</i></p>	<p>The Plan will:</p> <ul style="list-style-type: none">Clearly articulate, prioritise and sequence strategic transport investment between important economic centres and assets, to our important parts and airports, to support the transformation of economic performance across the North; and <p>Ensure TfN’s long term Investment Programme aligns with and complements the development and delivery of local transport, development and economic plans and policies, and supports the delivery of transformational developments and investment</p>	No	<p>Category A1: Policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy. Intentions in this objective include securing funding and addressing challenges to secure funding.</p> <p>The objective does not outline any development proposals and the exact details of where development may be located other than general areas, their design and/or when (or if) these sites will be constructed upon are not stated.</p> <p>The Strategic Transport Plan and Investment Programme seeks to protect European sites (through text under the ‘TfN’s principle for Pan-Northern Transport Investment’ on page 86 – 87 of the Strategic Transport Plan). Any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, or, as a last resort, compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. Therefore, should infrastructure development arise from the interventions, the need for HRA will be highlighted and undertaken at the development management stage.</p> <p>This objective is considered to have no likely significant effects on the International sites.</p>
<p>Promote and support the built and natural environment</p> <p><i>To ensure that transport interventions across the strategic transport system protect and enhance the natural and built environment, ensuring that the north’s strategic transport system is as sustainable as possible. It covers a range of issues, including the need to provide sustainable travel choices for the movement of people and goods across the North; reducing emissions from transport; making best use of our existing transport infrastructure before investing in new capacity; and ensuring that new infrastructure is designed to minimise the negative impacts on both the natural and built environment</i></p>	<p>The Plan will:</p> <ul style="list-style-type: none">Promote measures that improve sustainable travel options and make best use of the North’s existing strategic transport networks;Promote and support low carbon growth through the use of solutions that reduce carbon emissions and air quality impacts across the strategic road and rail networks;Ensure that environmental and sustainable impacts are key consideration in option selection for new strategic transport infrastructure interventions; andEnsure that improvements to the strategic transport network align with local environmental objectives, and in accordance with the national planning policy framework.	No	<p>Category A3: - Policies intended to conserve or enhance the natural, built or historic environment, where enhancement measures will not be likely to have any negative effect on an International site.</p> <p>The Strategic Transport Plan and Investment Programme seeks to protect European sites (through text under the ‘TfN’s principle for Pan-Northern Transport Investment’ on page 86 – 87 of the Strategic Transport Plan). Any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, or, as a last resort, compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. Therefore, should infrastructure development arise from the interventions, the need for HRA will be highlighted and undertaken at the development management stage.</p> <p>This objective actively seeks to protect the environment (including international site) and there the objective is considered to have no likely significant effects on the International sites.</p>
<p>Improve opportunities across the North</p> <p><i>To ensure that the STP improves access to opportunities for all across the North. Ultimately transport is a means to an end. To ensure that economic growth in the North is as inclusive as possible, investment in the strategic transport network should enable better access to key opportunities, including employment, healthcare, social activities and education, for all, regardless of their age, income-level and mobility. This will require a carefully co-ordinated approach to ensure that strategic and local transport investment programmes and policies are aligned and complimentary.</i></p>	<p>The Plan will:</p> <ul style="list-style-type: none">Ensure that improvements to our strategic transport networks support the inclusive growth and provide affordable access to key opportunities across the North, aligning strategic proposals carefully with local aspirations.		<p>Category A1: Policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy. Intentions in this objective include securing funding and addressing challenges to secure funding.</p> <p>Interventions in this category include increased access, pricing and availability.</p> <p>The objective does not outline any development proposals and the exact details of where development may be located other than general areas, their design and/or when (or if) these sites will be constructed upon are not stated.</p> <p>The Strategic Transport Plan and Investment Programme seeks to protect European sites (through text under the ‘TfN’s principle for Pan-Northern</p>

			<p>Transport Investment’ on page 86 – 87 of the Strategic Transport Plan). Any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, or, as a last resort, compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. Therefore, should infrastructure development arise from the interventions, the need for HRA will be highlighted and undertaken at the development management stage.</p> <p>This objective is considered to have no likely significant effects on the International sites.</p>
<p>Increase efficiency, reliability and reliance in the transport system <i>To improve the performance of the North’s strategic transport network by making the case for interventions that improve its efficiency, reliability and resilience. This will ensure that the North’s strategic transport networks meet the needs of its users, whether they are residents, businesses or visitors. The management of these networks will need to be able to adapt to changing demands over the period to 2050, such as shifting commuter patterns, changing leisure aspirations, more extreme weather conditions as a result of climate change and the emergence of new disruptive technologies, such as connected and autonomous vehicles. TfN will also identify opportunities to improve travel choices for the movement of both people and freight, to boost the resilience and sustainability of our pan-Northern networks, with a particular focus on making more sustainable travel options as attractive as possible. TfN will also promote measures that help to make the best of our existing networks, exploring new technologies and demand management tools that help to maximise network efficiency.</i></p>	<p>The Plan will:</p> <ul style="list-style-type: none">• promote measures that make the best use of the North’s existing strategic transport networks and improve their performance, including through use of best practice measures or new innovations;• improve travel choices and user experience for the movement of people and good across the North;• ensure that improvements to the performance of strategic transport networks are developed in a coordinated and integrated way with local networks; and• promote measures that increase the resilience of our transport network to the impact of climate change and increasing frequency of extreme weather events.	No	<p>Category A1: The objective will not itself lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.</p> <p>The objective does not outline any development proposals and the exact details of where development may be located other than general areas, their design and/or when (or if) these sites will be constructed upon are not stated.</p> <p>Interventions in this category include the increased access, performance and resilience.</p> <p>The Strategic Transport Plan and Investment Programme seeks to protect European sites (through text under the ‘TfN’s principle for Pan-Northern Transport Investment’ on page 86 – 87 of the Strategic Transport Plan). Any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, or, as a last resort, compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. Therefore, should infrastructure development arise from the interventions, the need for HRA will be highlighted and undertaken at the development management stage.</p> <p>This objective is considered to have no likely significant effects on the International sites.</p>
Seven Strategic Development Corridors			
Strategic Development Corridors	Broad Interventions	Will the broad interventions lead to likely significant effects on the European sites?	Justification of Findings
<p>Connecting the Energy Coasts <i>Improving connectivity for people and goods between the nationally significant non-carbon energy and research assets located in Cumbria, Lancashire, North Yorkshire, North East and Tees Valley.</i></p>	<p>Strategic and economic context:</p> <ul style="list-style-type: none">• Enhance the strategic connectivity for people and goods between the advanced manufacturing and energy generation research centres and assets;• Transport context; Support and enhance east-west transport connections.	No	<p>Category A1; Policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy. Intentions in this objective include securing funding and addressing challenges to secure funding.</p> <p>The Connecting the Energy Coasts Strategic Development Corridor does not outline any development proposals and the exact details of where development may be located other than general areas, their design and/or when (or if) these sites will be constructed upon are not stated.</p> <p>The Strategic Transport Plan and Investment Programme seeks to protect European sites (through text under the ‘TfN’s principle for Pan-Northern Transport Investment’ on page 86 – 87 of the Strategic Transport Plan). Any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, or, as a last resort, compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. Therefore, should infrastructure development arise from the interventions, the need for HRA will be highlighted and undertaken at the development management stage.</p> <p>The Connecting the Energy Coasts Strategic Development Corridor is considered to have no likely significant effects on the International sites.</p>
West and Wales	Strategic and economic context:	No	<p>Category A1; Policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or</p>

<p><i>Improving connectivity, for people and goods to, from and through the important economic centres and assets of Cheshire, Liverpool City Region and Greater Manchester, with strategic connectivity to North Wales and the Midlands.</i></p>	<ul style="list-style-type: none"> strengthen the connectivity between important and densely populated economic centres and assets, including some of the North's largest cities such as Liverpool and Manchester; The corridor will strengthen strategic cross border connectivity in to North Wales and Midlands; Support growth at Manchester Airport, Liverpool John Lennon Airport, the Cheshire Science Corridor Enterprise Zones, The Atlantic Gateway, The North Wales Arc, the Port of Liverpool and the Crewe HS2 Hub. <p>Transport economic context:</p> <ul style="list-style-type: none"> Major, strategic interventions can allow the important economic centres within the corridor to capitalise on the inward investment and ensure that centres and assets continue to stimulate investment; Significant investment and improvement to local rail and roads. 		<p>they are not a land use planning policy. Intentions in this objective include securing funding and addressing challenges to secure funding.</p> <p>The West and Wales Strategic Development Corridor does not outline any development proposals and the exact details of where development may be located other than general areas, their design and/or when (or if) these sites will be constructed upon are not stated.</p> <p>The Strategic Transport Plan and Investment Programme seeks to protect European sites (through text under the 'TfN's principle for Pan-Northern Transport Investment' on page 86 – 87 of the Strategic Transport Plan). Any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, or, as a last resort, compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. Therefore, should infrastructure development arise from the interventions, the need for HRA will be highlighted and undertaken at the development management stage.</p> <p>The West and Wales Strategic Development Corridor is considered to have no likely significant effects on the International sites.</p>
<p>Central Pennines <i>Improving strategic east-west connectivity for some of the North's important economic centres and assets in North Yorkshire, West Yorkshire and Hull and Humber through to Greater Manchester, Lancashire and Liverpool City Region</i></p>	<p>Strategic and economic context:</p> <ul style="list-style-type: none"> Support enhanced connectivity through freight and logistics, connecting the Port of Liverpool with the Ports on the Humber, as well as the international airports at Leeds Bradford and Liverpool John Lennon Airport. <p>Transport context:</p> <ul style="list-style-type: none"> This corridor can provide enhanced, additional road and rail capacity across the Pennines, to support this economic area and the North as a whole; Use variety of strategic movements; freight and logistics to support the ports, airports and inland ports as well as servicing the businesses located across the corridor. 	No	<p>Category A1: Policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy. Intentions in this objective include securing funding and addressing challenges to secure funding.</p> <p>The Central Pennines Strategic Development Corridor does not outline any development proposals and the exact details of where development may be located other than general areas, their design and/or when (or if) these sites will be constructed upon are not stated.</p> <p>The Strategic Transport Plan and Investment Programme seeks to protect European sites (through text under the 'TfN's principle for Pan-Northern Transport Investment' on page 86 – 87 of the Strategic Transport Plan). Any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, or, as a last resort, compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. Therefore, should infrastructure development arise from the interventions, the need for HRA will be highlighted and undertaken at the development management stage.</p> <p>The Central Pennines Strategic Development Corridor is considered to have no likely significant effects on the International sites.</p>
<p>Southern Pennines <i>Improving the strategic east-west, multi-modal connectivity between the important economic centres, assets and ports within Liverpool City Region, Greater Manchester, Cheshire, Sheffield City Region and Hull and Humber, as well as cross-border movements to the Midlands.</i></p>	<p>Strategic and economic context:</p> <ul style="list-style-type: none"> This corridor has the opportunity for freight and logistics to continue to strengthen the operations and investment at the corridor's ports, airports and inland ports. Enhancing strategic connectivity to the growth plans of Doncaster Sheffield Airport, Manchester Airport, and the Ports of Liverpool and the Humber, can have associated economic growth benefits along the corridor and the wider Northern economy. Grimsby and Immingham ports are the busiest in the UK by combined freight tonnage; Investment in the corridor will also need to be sensitive to sustainability considerations, particularly the Peak District National Park, as well as identifying the visitor economy benefits from the enhanced strategic connectivity. <p>Transport context:</p>	No	<p>Category A1; Policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy. Intentions in this objective include securing funding and addressing challenges to secure funding.</p> <p>The Southern Pennines Strategic Development Corridor does not outline any development proposals and the exact details of where development may be located other than general areas, their design and/or when (or if) these sites will be constructed upon are not stated.</p> <p>The Strategic Transport Plan and Investment Programme seeks to protect European sites (through text under the 'TfN's principle for Pan-Northern Transport Investment' on page 86 – 87 of the Strategic Transport Plan). Any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, or, as a last resort, compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. Therefore, should infrastructure development arise from the interventions, the need for HRA will be highlighted and undertaken at the development management stage.</p> <p>The Southern Pennines Strategic Development Corridor is considered to have no likely significant effects on the International sites.</p>

	<ul style="list-style-type: none"> The important economic centres can be supported to grow and invest through significant, agglomeration benefits gained through improved, efficient, resilient strategic road and rail connectivity. 		
North west to Sheffield City Region <i>Strengthening rail connectivity between the advanced manufacturing clusters and assets in Cumbria, Lancashire, Greater Manchester and Sheffield City region, with improved connectivity from the North in to Scotland</i>	<p>Strategic and economic context:</p> <ul style="list-style-type: none"> This rail corridor looks to strengthen the strong and growing connectivity and collaboration between the advanced manufacturing, health technology, digital businesses, and research centres in the Sheffield City Region and those in Lancashire and Cumbria; The logistics industry is also important for servicing the businesses located across the corridor, and within the corridor. There is also a strong visitor and tourism offer from two of the UK's national parks, which enhanced strategic connectivity can support. <p>Transport context:</p> <ul style="list-style-type: none"> The corridor is primarily a rail corridor to complement other investments being pursued in road improvements in the North West and across the Pennines. The existing economic links are not served well by the existing rail network. There is also strong demand for growth on this corridor through to Scotland, for passengers and freight. The line between Blackpool North, Preston and Manchester, journey times and frequencies are being improved 	No	<p>Category A1: Policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy. Intentions in this objective include securing funding and addressing challenges to secure funding.</p> <p>The North west to Sheffield City Region Strategic Development Corridor does not outline any development proposals and the exact details of where development may be located other than general areas, their design and/or when (or if) these sites will be constructed upon are not stated.</p> <p>The Strategic Transport Plan and Investment Programme seeks to protect European sites (through text under the 'TfN's principle for Pan-Northern Transport Investment' on page 86 – 87 of the Strategic Transport Plan). Any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, or, as a last resort, compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. Therefore, should infrastructure development arise from the interventions, the need for HRA will be highlighted and undertaken at the development management stage.</p> <p>The North west to Sheffield City Region Strategic Development Corridor is considered to have no likely significant effects on the International sites.</p>
East Coast to Scotland <i>Strengthening rail connectivity along the East Coast Main Line and other key parallel rail lines, such as the Durham Coast Line, to provide enhanced strategic and local connectivity in the North East, Tees Valley and north Yorkshire.</i>	<p>Strategic and economic context@</p> <ul style="list-style-type: none"> This rail corridor looks to strengthen the significant economic development in this corridor. These developments include the major ports, airports including Newcastle and Leeds Bradford, major rail hubs, strategic rail freight interchanges and intermodal terminals. Prime capabilities of this region are manufacturing, renewable energy, automotive sector and health sector. These are supported by strengths in the enabling capabilities including professional services (particularly in the North East and Leeds City Region) and logistics associated with the corridor's ports, airports and freight hubs. <p>Transport Context:</p> <ul style="list-style-type: none"> Investment is required at rail stations including Darlington, Middlesbrough, Newcastle, York, Hartlepool, Morpeth and Sunderland to increase capacity, promote economic growth, and be make the most of the opportunities provided by HS2. There are existing capacity, operability timetabling, and reliability constraints along the corridor, which is limiting economic growth and the movement of people. 		<p>Category A1: Policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy. Intentions in this objective include securing funding and addressing challenges to secure funding.</p> <p>The East Coast to Scotland Strategic Development Corridor does not outline any development proposals and the exact details of where development may be located other than general areas, their design and/or when (or if) these sites will be constructed upon are not stated.</p> <p>The Strategic Transport Plan and Investment Programme seeks to protect European sites (through text under the 'TfN's principle for Pan-Northern Transport Investment' on page 86 – 87 of the Strategic Transport Plan). Any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, or, as a last resort, compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. Therefore, should infrastructure development arise from the interventions, the need for HRA will be highlighted and undertaken at the development management stage.</p> <p>The East Coast to Scotland Strategic Development Corridor is considered to have no likely significant effects on the International sites.</p>
Yorkshire to Scotland <i>Strengthening road connectivity between the Midlands, South Yorkshire, West Yorkshire, North Yorkshire, Tees Valley, the North East and Scotland, building on the existing road investment commitments.</i>	<p>Strategic and economic context:</p> <ul style="list-style-type: none"> This road corridor looks to strengthen and complement the East Coast Corridor to Scotland road corridor and will examine the transformational requirements to better connect the economic centres in this corridor 	No	<p>Category A1: Policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.</p> <p>The Yorkshire to Scotland Strategic Development Corridor does not outline any development proposals and the exact details of where development may be located other than general areas, their design and/or when (or if) these sites will be constructed upon are not stated.</p>

	<p>beyond the current Road Investment Strategy commitments.</p> <ul style="list-style-type: none">• This region has a number of assets such as manufacturing, renewables, automotive sector, health sector and life science sector. These capabilities are supported by strengths in the enabling capabilities including professional services (particularly in the North East and Leeds City Region) and logistics associated with the corridor's ports, airports and freight hubs. <p>Transport context:</p> <ul style="list-style-type: none">• This corridor can transform the movement of people and goods within this corridor, as well as strategic movements between the Scotland and the Midlands. Improved transport connectivity between the cities and surrounding economic centres, such as along the A19, will increase productivity and support the growth of complementary industrial capabilities.		<p>The Strategic Transport Plan and Investment Programme seeks to protect European sites (through text under the 'TfN's principle for Pan-Northern Transport Investment' on page 86 – 87 of the Strategic Transport Plan). Any potential direct or indirect impacts on these sites that may arise from new and/or upgraded transport interventions will be appropriately assessed, mitigated, or, as a last resort, compensated for, in-line with existing best practice and relevant legislation across the life span of the Plan. Therefore, should infrastructure development arise from the interventions, the need for HRA will be highlighted and undertaken at the development management stage.</p> <p>The Yorkshire to Scotland Strategic Development Corridor is considered to have no likely significant effects on the International sites.</p>
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