ARUP

Transport for the North

Strategic Transport Plan 2

Habitats Regulations Assessment - Stage 2 Appropriate Assessment

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1. Introduction

Ove Arup and Partners Ltd. (Arup) was commissioned by Transport for the North (TfN) to undertake a Habitats Regulations Assessment (HRA) Stage 2 Appropriate Assessment of the TfN Strategic Transport Plan 2 ('the Plan') during the development of the plan. This HRA report has been updated taking into account the revised Plan following the plan's consultation in 2023.

1.1 Background to this Assessment

TfN issued a Strategic Transport Plan in 2019.[1] A second multi-modal transport plan for the North is being developed which will update and build on the STP issued in 2019. A HRA Appropriate Assessment was undertaken on the original STP (Atkins, 2019).[2]

1.2 Report Objectives

The purpose of this report is to provide the necessary information for the competent authority to carry out a HRA Appropriate Assessment in accordance with Regulation 63 of the Conservation of Habitats and Species Regulations 2017, as amended by the Conservation of Habitats and Species (amendment) (EU Exit) Regulations 2019[3], hereafter referred to as 'the Habitats Regulations'. It has been prepared to inform the Appropriate Assessment process and the competent authority on the implications of the Plan on European sites protected by the Habitats Regulations.

1.3 Report Structure

The report includes:

- Section 2: Habitats Regulations Assessment.
- Section 3: Background to the Strategic Transport Plan 2.
- Section 4: Methodology.
- Section 5: Designated Sites.
- Section 6: Stage 1 Screening Assessment.
- Section 7: Stage 1 Screening Conclusion.
- Section 8: Stage 2 Appropriate Assessment.
- Section 9: Stage 2 Appropriate Assessment Conclusions.

[1] Transport for the North (2019) Strategic Transport Plan.

[2] Atkins (2019) Habitats Regulations Assessment Stage 1 Screening and Stage 2 Appropriate Assessment, TfN Strategic Transport Plan Independent Integrated Sustainability Appraisal.

[3] The EU Exit Regulations retain the requirements and interpretation of the 2017 Regulations, but with adjustments necessary to reflect the UK's exit from the European Union (see Reg. 4).

2. Habitats Regulations Assessment

The Habitats Regulations 2017 set out the stages of assessment which must be undertaken to determine if a plan or project could significantly harm the designated features of a European site. European sites comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), designated under Council Directive 92/43/EEC ('the Habitats Directive') and Council Directive 79/409/EEC ('the Birds Directive'), as incorporated into UK law. Guidance from the Department for Environment, Food and Rural Affairs (DEFRA) states any proposals affecting a proposed SAC, potential SPA, proposed or listed wetland of international importance designated under the Ramsar Convention (Ramsar sites), or site secured as compensation for damage to a European site, must also be subject to HRA Assessment.[4]

Regulation 63 of the Habitats Regulations 2017 states that any plan or project not directly connected with, or necessary to, the management of a European site, but which would be likely to have a significant effect on such a site, either alone, or in combination with other plans or projects, must be subject to appropriate assessment of its implications for the European site in view of its conservation objectives.

Under the Habitats Regulations 2017 an effect is likely if:

- It cannot be excluded, that it is capable of having an effect, on the basis of objective information; and
- It is likely to undermine the site's conservation objectives.

An in-combination assessment is required for effects which are not significant alone, but when combined with other 'residual' effects could give rise to a likely significant effect. Whilst not explicit in Regulation 63(5), case law (European Court of Justice, 2004)[5] informs us that an in-combination assessment is required at both Stage 1 (screening) and Stage 2 (appropriate assessment).

Regulation 63 (2) of the Habitats Regulations 2017 states that as the applicant for this Plan, TfN must provide such information as the competent authority may reasonably require for the purposes of the assessment, or to enable it to determine whether an appropriate assessment is required.

Regulation 63 of the Habitats Regulation 2017 also states that consent should only be granted for a plan or project once the relevant competent authority has ascertained that it will not adversely affect the integrity of European sites.

Regulation 64 describes that where an appropriate assessment has been carried out and it cannot be ascertained that a plan or project would not adversely affect the integrity of a European site, consent will only be granted if there are no alternative solutions and there are imperative reasons of overriding public interest (IROPI) for the development and compensatory measures have been secured.

The stages outlined below indicate that if likely significant effects can be ruled out in either Stages 1 or 2, a plan or project can be withdrawn from further assessment. Most plans or projects are resolved in Stages 1 and 2 because the iterative assessment process drives design change to avoid or minimise effects resulting from plans or projects. Plans and projects can only pass Stages 3 and 4 of

[4] Department for Environment, Food and Rural Affairs, Natural England, Welsh Government and Natural Resources Wales (2021) Habitats Regulations Assessment: protecting a European site. https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site [Accessed: 30/11/22].

[5] European Court of Justice (2004) Case C – 127/02 Waddenzee 7 September 2004 (Para 45).

a HRA if there are no feasible alternative solutions, IROPI has been demonstrated, and the necessary compensatory measures can be secured. This means that where issues cannot be resolved at Stage 2, few plans and projects are taken forward to Stages 3 and 4.

The applicant's role at each stage of the HRA process is summarised as follows:

- Screening (Stage 1) – determination of the risk that a plan or project will give rise to Likely Significant Effects (LSE) on the conservation objectives of the qualifying features (interest features) of the European site, alone or in combination with other plans or projects, i.e. determination of whether LSE can be ruled out. It should be noted that in 2018 a Court of Justice of the European Union ruling (referred to as the 'People over Wind' ruling[6]) determined that 'mitigation' i.e. measures intended to avoid or reduce the harmful effects of projects on European sites, should not be taken into account when forming a view on LSE during HRA screening.
- Informing the appropriate assessment (Stage 2) – where LSE cannot be ruled out at Stage 1, or there is uncertainty as to whether LSE would occur, report on and provide evidence of examination of adverse effects on the integrity of a European site, to inform the competent authority undertaking the appropriate assessment.
- If an adverse effect on the integrity of the site can be avoided, with or without mitigation, the project can be consented. If not, derogations would have to be sought through Stages 3 and 4 of the HRA process. These are considered only in exceptional circumstances, where a strict set of legal tests must be met.[4]
- Assessment of alternatives (Stage 3) – formal assessment and reporting of alternative solutions if the proposal fails the integrity test as an adverse effect on site integrity cannot be rule out.
- Assessment of IROPI (Stage 4) – where the alternative solutions assessment reports that there are no alternative solutions to the project and this has been agreed with the relevant statutory environmental body (SEB), an assessment of IROPI shall be undertaken.
- Assessment of compensatory measures – where IROPI are established and reported, an assessment shall be compiled on measures to compensate for the adverse impact of the project. This should be used as basis for consultation with the relevant SEB to seek their representation on the sufficiency of the proposed compensation.

[6] Judgement of the Court (2018) Case C-323/17 People Over Wind v Coillte Teoranta (also referred to as the Sweetman II Judgement).

3. Background to the Strategic Transport Plan 2

As part of the Plan, an update and review of the original STP objectives was undertaken and updated to strategic ambitions. These strategic ambitions (Table 3.1) form a key component of the Plan and will be applied across the North of England.

Table 3.1: Strategic ambitions for the North.

Strategic Ambition	Summary Description
Transform Economic Performance	The North has a historical productivity gap with the rest of England. The Northern Powerhouse Independent Economic Review (NPIER, 2016)[7] concluded that addressing regional inequality through creating a stronger North benefits the whole UK economy. Alongside a baseline 'business as usual' scenario in the updated NPIER, the four other scenarios are: 1) A net zero scenario with a strong focus on green innovation and growth, 2) Technology transformation, supporting research and innovation and entrepreneurialism and technology adoption. 3) Inclusive productivity, interventions to support the health, well-being and skills of the Northern workforce. 4) Development supply, designed to boost the supply of commercial property and domestic housing. When modelled together (in the fully transformational scenario), if adopted, the ambition for the North surpasses the scale of the ambition for Gross Value Added (GVA) growth and job creation in the 2016 work and also the level of productivity by 2050 of the rest of England (excluding London).
Rapid Decarbonisation of Surface Transport	TfN are committed to a regional near-zero carbon surface transport network by 2045. The North is ambitious in tackling carbon emissions and wants to go further and faster than Government policy.
Enhancing Social Inclusion and Health	The Plan must deliver for everyone who lives and works in the North by delivering better access to opportunities, key services, the natural environment and community life. Bring the North into line with other parts of England will reduce the number of people living in areas at high risk of Transport Related Social Exclusion (TRSE) by one million and reduce the number of people living in areas with at very high risk of TRSE by 370,000 by 2050.

The original STP focused on creating an integrated and well co-ordinated transport system that supports a range of different travel needs. A series of strategic development corridors that are connectivity priorities to support economic growth of the north were developed. Whilst future investment will not be solely concentrated in these corridors, they represent where the greatest gaps between demand and performance currently exists, and where there is the greatest potential for reaping social and environmental benefits across the North. As part of the Plan, these strategic corridors were brought forward (Figure 3.1). Each corridor represents an area where TfN evidence

[7] SQW (2016) The Northern Powerhouse Independent Economic Review.

identifies investment in transport infrastructure will unlock and enable transformational economic growth – interlinking Local Transport Plans with regional national and international connectivity.

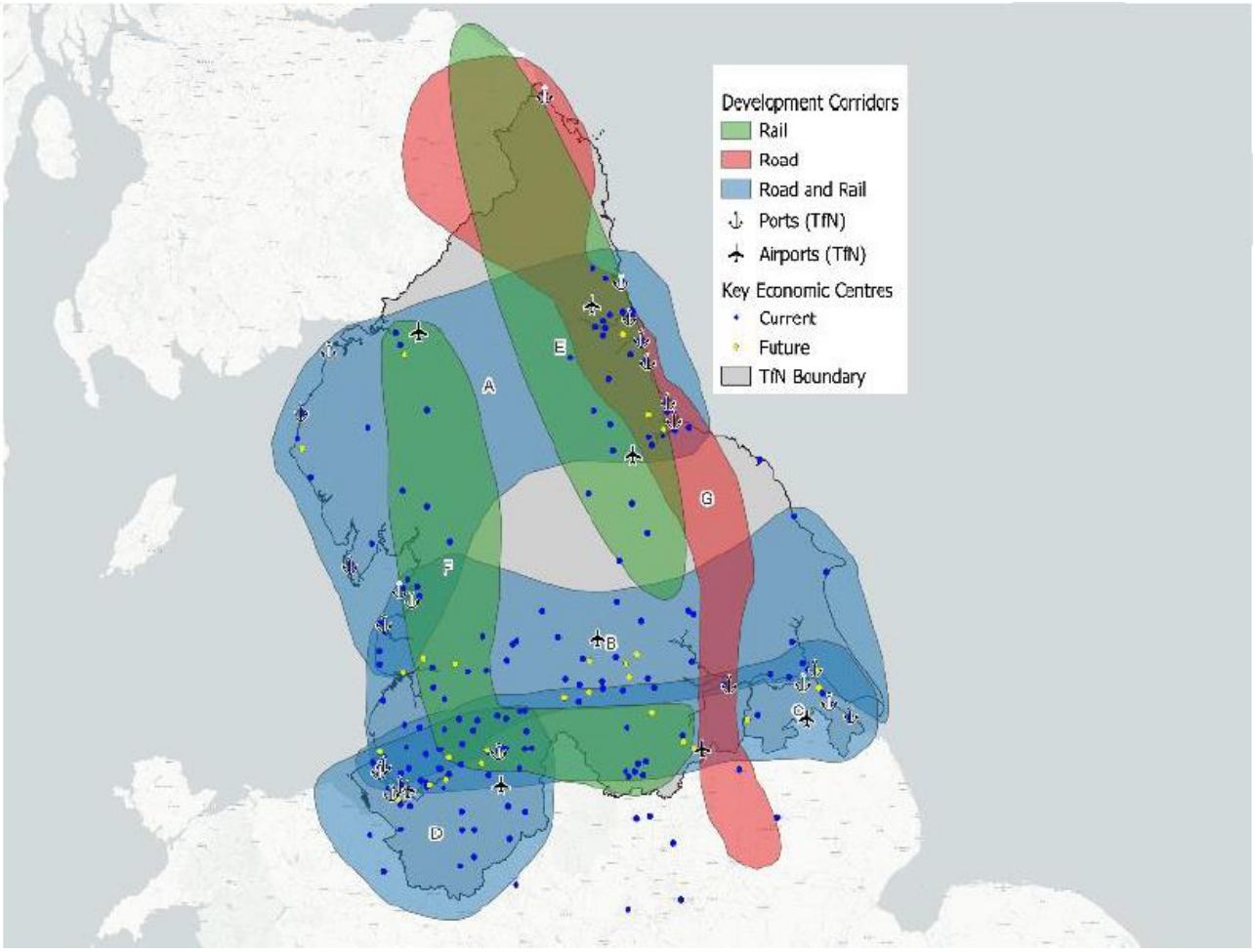

Figure 3.1: Strategic development corridors.

4. Methodology

4.1 Gathering Information

The information included within the Plan was used to analyse whether it will have any adverse effects on the integrity of European sites.

4.2 Scoping of European Sites

The European sites included within the scope of this HRA Appropriate Assessment have been identified in accordance with DMRB LA 115 (Highways England, 2020)[8] screening criteria. These criteria state that European sites shall be included within the screening where the following are met:

- Criterion 1: The Plan area or boundary is within 2km of a European site or functionally linked land (i.e. Areas of land or sea occupied by the qualifying interests (species) of a European site that lie beyond the boundary of the site. Such areas support activities such as feeding, roosting and migration).
- Criterion 2: The Plan area or boundary is within 30km of a SAC, where bats are noted as one of the qualifying interests.
- Criterion 3: The Plan area crosses or lies adjacent to, upstream of, or downstream of, a watercourse which is designated in part or wholly as a European site.
- Criterion 4: The Plan area has a potential hydrological or hydrogeological linkage to a European site containing a groundwater dependent terrestrial ecosystem (GWDTE) which triggers the criteria for assessment of European sites in accordance with DMRB LA 113 Road drainage and the water environment (Highways England, 2020)[9].
- Criterion 5: Has an Affected Road Network (ARN) which triggers the criteria for assessment of European sites in DMRB LA 105 Air quality (Highways England, 2020)[10].

The criteria above have been utilised in this assessment for consistency with National Highways (formerly named 'Highways England') best practice for road schemes. However, it should be noted that due to the high-level nature of the Plan with no detailed information on location of infrastructure development or traffic modelling data, it is not possible to filter sites based on criteria 4 and 5. Therefore these criteria have not been utilised during this screening assessment. These will need to be considered when detailed project design proposals are brought forward.

4.3 Consideration of Impacts 'Alone' and 'In-Combination'

An assessment is undertaken to determine if the Plan in the absence of mitigation will have any LSE on the European sites 'alone'. The HRA assesses the strategic ambitions of the Plan as well as the strategic development corridors and policy actions.

Each of the principles, spatial themes and accompanying interventions (interventions which may lead to new infrastructure, improved access across the region or new development in relation to construction activity) have been examined to see if the Plan could lead to LSE on the European sites. However, as the Plan is developed at a strategic level, new infrastructure requirements, extent of improvements to existing transport links, and associated development that may arise as a result of

[8] Highways England (2020) Design Manual for Roads & Bridges LA 115 Habitats Regulations Assessment.

[9] Highways England (2020) Design Manual for Roads and Bridges LA 113 Road drainage and the water environment.

[10] Highways England (2019) Design Manual for Roads and Bridges LA 105 Air Quality.

these interventions is unknown at this stage. The HRA is therefore also undertaken at the strategic level. The precautionary principle is taken where the HRA cannot objectively demonstrate there will be no LSE on a European site.

Where screening concludes that significant effects are likely (alone or in-combination), or that sufficient uncertainty remains, then that potential effect will be taken forward to Stage 2 – Appropriate Assessment.

When considering in-combination effects, the competent authority should take account of:

- All current and proposed plans or projects of which it is aware (and the applicant should make the authority aware of such plans or projects).
- The effects of past plans or projects, if they have an ongoing effect on the conservation objectives of the site.

The Plan is set at a strategic level, therefore no detail is provided of any infrastructure development proposals including their design, specific location or timescales for construction. In some cases, an indication of a potential development location is provided, however in the absence of further information this is insufficient to provide a detailed assessment of impacts.

For European sites where no LSE as a result of a policy are concluded, the potential exists for in-combination effects with other plans or projects. However, given the strategic nature of the Plan, there will inevitably be a delay between adoption of the plan and any subsequent development. Without detailed information relating to individual project proposals and timescales, it is not possible to predict which other plans and projects will be relevant to such a future project assessment. There is a need to consider the potential for in-combination effects at the plan stage, but that assessment is relevant to any subsequent development in its own right and needs to be scoped accordingly.

Therefore, the in-combination assessment is taken forward to the Appropriate Assessment stage where potential for in-combination effects may be considered alongside mitigation measures which may be required.

Where LSE are ruled out during the HRA screening, they have been ruled out alone with no residual effect or credible pathway for effect e.g. the strategic ambition is a general aspiration with no proposed development.

4.4 Nutrient Neutrality

It is key to highlight the consideration of nutrient neutrality during future assessments. Natural England identified Site of Special Scientific Interest (SSSI) catchments which require nutrient neutrality strategic solutions. In addition, they identified sites in unfavourable condition due to excessive nutrients which require a HRA and where nutrient neutrality is a potential solution to enable development to proceed.[11] Within the TfN area SSSI catchments and sites in unfavourable condition are located within the following Local Transport Authority areas: Cumbria County Council, North of Tyne Combined Authority, North East Combined Authority, Tees Valley Combined Authority and North Yorkshire County Council. Whilst this is only currently being applied to development that would result in a net increase in population served by wastewater systems, the HRA requirements will apply to any plans or projects that have the potential to release additional nitrogen and/or phosphorous into the system and that require a Local Planning Authority or Environment Agency consent, permission or approval.

[11] Advice note from Natural England (16 March 2022) *Advice for development proposals with the potential to affect water quality resulting in adverse nutrient impacts on habitats sites.*

5. Designated Sites

The Plan will apply to an area of the north of England comprising the combined overall geographical extents of the 20 Local Transport Authorities comprising TfN. All the European sites within the Local Transport Authority boundaries and up to 2km from the Plan boundary have been identified. Table 5.1 provides a summary of the European sites which fall within each Local Transport Authority area. Appendix A1 provides detail on the qualifying features for each site and the conservation objectives.

Some sites cross the boundary of a number of Local Transport Authority areas and as such are noted in relation to each Local Transport Authority area. There are also sites within 2km of the Plan area boundary that are in Scotland and, as such, would require consideration of trans-boundary issues.

Table 5.1: European sites designated for Nature Conservation located within each Local Transport Authority Area, within 2km of the Plan boundary or within 30km where bats are a qualifying feature.

Local Transport Authority Area	SAC	SPA	Ramsar
Cheshire West and Chester Unitary Authority; Cheshire East Unitary Authority; Warrington Unitary Authority	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		
	West Midland Mosses		
Cumberland District Council and Westmoreland and Furness District Council (formerly Cumbria County Council)	Moor House-Upper Teesdale	Solway Firth	Esthwaite Water
	Helbeck & Swindale Woods	North Pennine Moors	Solway Firth
	Tarn Moss	Morecambe Bay & Duddon Estuary	Irthinghead Mires
	River Kent		Duddon Estuary
	Ullster Oakwoods		Morecambe Bay
	South Solway Mosses		
	Solway Firth		
	Cumbrian Marsh Fritillary Site		
	Drigg Coast		
	Morecambe Bay Pavements		
	Roundsea 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		

Local Transport Authority Area	SAC	SPA	Ramsar
	Subberthwaite, Blawith & Torver Low Commons		
	Asby Complex		
	River Ehen		
	Naddle Forest		
	Wast Water		
	Duddon Mosses		
	Morecambe Bay		
Greater Manchester Combined Authority	Rochdale Canal	Peak District Moors (South Pennine Moors Phase 1)	None identified
	South Pennine Moors	South Pennine Moors Phase 2	
	Manchester Mosses		
East Riding of Yorkshire Unitary Authority; North Lincolnshire Unitary Authority and North East Lincolnshire Unitary Authority	Lower Derwent Valley	Hornsea Mere	Lower Derwent Valley
	Thorne Moor	Lower Derwent Valley	Humber Estuary
	River Derwent	Flamborough and Filey Coast	
	Flamborough Head	Humber Estuary	
	Humber Estuary	Thorne & Hatfield Moors	
	Hatfield Moor	Greater Wash	
Lancashire County Council, Blackpool Unitary Authority; Blackburn with Darwen Unitary Authority	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 and Duddon Estuary	
		South Pennine Moors Phase 2	
West Yorkshire Combined Authority	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		

Local Transport Authority Area	SAC	SPA	Ramsar
	Skipwith Common		
Liverpool City Region Combined Authority	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	The Dee Estuary
		Liverpool Bay	
North East Combined Authority	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	Northumberland Marine	
	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 City Region Combined Authority	Thorne Moor	Peak District Moors (South Pennine Moors Phase 1)	None identified
	South Pennine Moors	Thorne & Hatfield Moors	
	Hatfield Moor		
Tees Valley Combined Authority	North York Moors	North York Moors	Teesmouth and Cleveland Coast
		Teesmouth and Cleveland Coast	
North Yorkshire and York Combined Authority (formerly North Yorkshire	Lower Derwent Valley	Hornsea Mere	Lower Derwent Valley
	Fen Bog	Lower Derwent Valley	Humber Estuary

Local Transport Authority Area	SAC	SPA	Ramsar
County Council; City of York Unitary Authority)	Thorne Moor	North York Moors	Malham Tarn
	River Derwent	Flamborough and Filey Coast	
	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)	Greater Wash	
	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		
	Skipwith Common		
European sites within 2km of the Plan area boundary	None identified	Liverpool Bay	Din Moss-Hoselaw Loch
		Din Moss-Hoselaw Loch	Upper Solway Flats and Marshes
European sites within 30km of the Plan area boundary for which bats are a qualifying feature	None identified	None identified	None identified

6. Stage 1 Screening Assessment

The findings of the Stage 1 screening for the European sites under consideration are provided in Table 6.1. Justification for the conclusions drawn are provided in Appendix A2.

Table 6.1: Results of the HRA Stage 1 screening.

Potential Impacts	Relevant Strategic Ambitions and Policies
Describe the individual elements of the Plan likely to give rise to impacts on the European sites.	The three Plan strategic ambitions and seven strategic development corridor policies focus on the need for improvements to existing infrastructure, creation of new transport links through the development of new infrastructure and improved (i.e. faster and more efficient) connectivity across the North of England. The three Plan strategic ambitions will not themselves lead to development (i.e. construction of new infrastructure) because they relate to existing transport design or other qualitative criteria for improvements in the transport network. The Plan strategic ambitions are not a land use planning policy. Therefore, the Plan strategic ambitions are considered to have no LSE on the European sites. The seven strategic development corridors and TfN policy actions screened in for further assessment (Table A2.4) are policies for which there is a possibility that, if implemented in one or more particular ways, may have a significant effect on a European site. Using the precautionary principle, LSE alone cannot be ruled out for the seven strategic development corridors. LSE may arise via several routes such as direct land take, pollution events, noise, air quality and increased recreational pressure. As such, these policies will require a Stage 2 Appropriate Assessment to be undertaken.
Provisions included within the Plan to protect European sites	Text within the strategic ambition of "Rapid decarbonisation of surface transport" in the Plan states: *'...we want to ensure that new infrastructure is designed to minimise any adverse impacts on the natural, historic, and built environment. New infrastructure needs to deliver an environmental net gain through aiding local nature recovery, improving our green and blue infrastructure and developing nature-based solutions for reducing emissions and increasing our infrastructure's resilience to the effects of climate change, recognising that access to the natural environment can improve physical and mental health too.*' With the clear objective of: '*All new major transport infrastructure development to aid local nature recovery by achieving 10% biodiversity net gain, for projects gaining approval from 2025 (in line with the Environment Act 2021).*' Text specifically on Local Nature Recovery and Nature Based Solutions includes: '*Our linear transport infrastructure, both existing and proposed can play a vital part in supporting and enhancing our Partners*

Potential Impacts	Relevant Strategic Ambitions and Policies
	Local Nature Recovery Strategies and in complementing our decarbonisation ambitions through the development of nature-based solutions for climate change mitigation and increased infrastructure resilience, for example, through working with local stakeholders to support Nature North's 'Green Northern Connections' investable proposition.' Additional text includes: '*…there is a global ecological crisis. The North of England is no exception to this global phenomenon and the Environment Act 2021 gives it greater policy focus. The level of environmental protection enshrined within the Act is relevant to our transport system, it sets a requirement for achieving biodiversity net gain when developing new transport infrastructure, and the need to utilise existing practices and transport estate to help build a nature recovery network across the country*.'
Describe any likely direct, indirect or secondary impacts of the Plan on the European sites by virtue of: • 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.	Potential impacts of the seven strategic development corridors and TfN policy actions screened in for further assessment (Table A2.4) are dependent on how the policies/proposals are implemented. It is possible that if implemented in one or more particular ways, the proposals may have a significant effect on a European site. Pathways for effect may include the following: - construction of new transport infrastructure in directly within or within proximity to European sites; - hydrological changes; - air quality; - noise; - lighting; - additional recreational pressure. Using the precautionary principle, LSE alone cannot be ruled out for the seven strategic development corridors and TfN policy actions (Table A2.4). However, owing to the high-level nature of the policy the likely direct, indirect or secondary impacts cannot be quantified at this stage.
Describe any likely changes to the European sites arising as a result of: • 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.	Potential impacts of the seven strategic development corridors and TfN policy actions screened in for further assessment (Table A2.4) are dependent on how the policies/proposals are implemented. It is possible that if implemented in one or more particular ways, the proposals may have a significant effect on a European site. Pathways for effect may include the following: - construction of new transport infrastructure in directly within or within proximity to European sites; - hydrological changes; - air quality; - noise; - lighting; - additional recreational pressure.

Potential Impacts	Relevant Strategic Ambitions and Policies
	Using the precautionary principle, LSE alone cannot be ruled out for the seven strategic development corridors. However, owing to the high level nature of the policy, the likely direct, indirect or secondary impacts cannot be quantified at this stage.
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	Based on findings of the HRA Stage 1 Screening Assessment (Appendix A2), it is considered that LSE alone on European sites cannot be ruled out from the seven strategic development corridors and TfN policy actions screened in for further assessment (Table A2.4). The scale and magnitude of impacts is currently unknown.

7. Stage 1 Screening Conclusions

The key results of the HRA screening undertaken are summarised below:

- Three Plan strategic ambitions, seven strategic development corridors and TfN policy actions were subject to the HRA screening assessment.
- TfN covers a large area of northern England. Consequently, numerous European sites were identified within the relevant Local Transport Authorities which define the TfN boundary (Table 5.1).
- LSE can be ruled out with no residual effects for the three Plan strategic ambitions and some of the required actions under the following TfN policy areas: rail, roads, local connectivity, freight and international connectivity. The strategic ambitions are a general aspiration and do not include any proposals for construction of new infrastructure or changes to the existing transport network that could impact European sites. The TfN policy actions are scoped out for the reasons detailed in Table A2.4.
- The seven strategic development corridors and some of the required actions under the following TfN policy areas: road, rail, freight and international connectivity and local connectivity are high level, only broadly defining the policy objectives and provide limited detail of potential projects that may develop at a later stage. However, following the precautionary principle, LSE alone cannot be ruled out for the seven strategic development corridors and identified TfN policy actions (Table A2.4), since they have potential to result in construction of new infrastructure in proximity to European sites. Consequently, a Stage 2 Appropriate Assessment was required to determine whether any LSE resulting from these policies could affect the integrity of a European site and its conservation objectives.

8. Stage 2 Appropriate Assessment

Seven strategic development corridors and TfN policy actions have been taken forward to Stage 2 Appropriate Assessment as these policies could result in the upgrade of existing infrastructure or construction of new infrastructure which may be in proximity to a European site.

However, the level of detail and information within the Plan is insufficient to undertake assessment of the LSE resulting from individual projects. Therefore, this plan level Appropriate Assessment provides a list of potential impacts at the construction and operation phases of projects associated with the policies. The information provided within this document should be built on and used to assist lower-level plans. This includes a thorough assessment of the qualifying features, conservation objectives, current condition of the site (including supplementary advice if available) and potential impacts on qualifying features as a result of each proposed plan/project to determine appropriate mitigation (if required) and adverse effects on integrity of the site.

As detailed within Table A2.4 the potential pathways for effects on European sites may include (but are not restricted to):

- Direct land take – a reduction in habitat for which the European site is designated, or habitat that supports faunal species for which the European site is designated. The reduction in habitat area may also lead to fragmentation (resulting in an increase in edge effects or susceptibility of habitats to damage); habitat isolation; and severance (which may impact life cycles of species e.g. aquatic habitat of fish being severed or impacts on plant dispersal).
- Hydrological changes – an increase or decrease in water entering European sites/changes in groundwater level has potential to impact vegetation communities. This could result in loss of important plant species and impacts on fauna reliant on specific plants or vegetation communities. Furthermore, the sites may become more prone to the effects of drought or flooding events. Changes to hydrology within watercourses may impact hydrogeology and flow types, subsequently affecting life cycles of fish species as well as accretion and deposition of habitats in channel which are reliant on certain flow types e.g. gravel banks.
- Water pollution – direct impacts from contaminated run-off or accidental spills which lead to direct mortality of flora or fauna for which the site is designated, or cascading up trophic levels to qualifying features. Changes to nutrient levels of the watercourse which may cause increase growth of algal blooms leading to changes in oxygen and light levels.
- Air quality – an increase in deposition of air quality pollutants such as nitrogen or ammonia which can lead to direct smothering of vegetation (detrimental to particularly sensitive species) or changes in nutrient levels of soils, which may impact species above and below ground.
- Noise and vibration – direct disturbance to species for which the site is designated. This may lead to a reduction in area which species are able to utilise, or abandonment of nests in the case of breeding birds. Disturbance may also indirectly lead to higher mortality or reduced breeding success if species are spending more time foraging or unable to gather higher quality food for themselves or for young. Noise and vibration disturbance also has potential to impact fish migration and movement.
- Lighting – an increase in lighting could make the site less favourable to species for which it is designated and subsequently lead to severance of habitats.
- Additional recreational pressure – as a result of new infrastructure providing easier access to, or construction of developments closer to, European designated sites. Impacts on

qualifying features could include increased trampling, disturbance or nutrient inputs e.g. from dog walking.

- Invasive species and biosecurity – the spread of invasive species may be a result of changes in nutrient levels, ecosystem dynamics, poor biosecurity during construction or human spread through increased recreation.

It should be noted that any project proposal relating to the Plan policies will be subject to a project level HRA. Consequently, the competent authority will determine whether the proposed project fails or passes the HRA test on a case-by-case basis.

Each project should follow the mitigation hierarchy, where avoidance measures are included within the early design process to ensure any potential significant effects can be reduced through the proposed location, scale, duration and construction methods.

If impacts cannot be avoided, suitable mitigation measures will need to be applied. The type of mitigation proposed will be project specific, however the following provide an example of how mitigation may be used to reduce/remove adverse effects on integrity:

- Schedule construction works to occur outside of sensitive periods for qualifying features of the European site e.g. breeding, wintering or migratory periods.
- Implement standard best practice measures e.g. pollution prevention, as part of management plans and procedures to reduce the risk of an adverse effect.
- Utilise construction techniques which minimise impacts such as noise/vibration/soil compaction to reduce the risk of an adverse effect.

As part of the assessment, in-combination effects will also need to be considered. Where significant effects alone can be ruled out, an assessment as to whether other plans or projects may act in-combination will be required. The pathways for in-combination effects are similar, but not limited to, those outlined for the plan/project alone.

The Plan includes the following text in relation to potential impacts on European sites:

...we want to ensure that new infrastructure is designed to minimise any adverse impacts on the natural, historic, and built environment. New infrastructure needs to deliver an environmental net gain through aiding local nature recovery, improving our green and blue infrastructure and developing nature-based solutions for reducing emissions and increasing our infrastructure's resilience to the effects of climate change, recognising that access to the natural environment can improve physical and mental health too.

Given the high-level nature of the Plan, details on the nature, timing, duration, scale or location of potential infrastructure improvements or developments are not included. Nor are any high-level mitigation measures identified. Subsequently it is not possible to determine the likelihood of adverse effects on the integrity of European sites.

9. Stage 2 Appropriate Assessment Conclusions

The key results of the HRA Appropriate Assessment are summarised below:

- The policies taken forward to Appropriate Assessment may result in upgrading of existing infrastructure or construction of new infrastructure. However, details on the nature, timing, duration, scale and location of potential projects are currently unknown.
- The Plan recommends that "…*new infrastructure is designed to minimise any adverse impacts on the natural, historic and built environment. New infrastructure needs to deliver an environmental net gain...*" However, no detail on mitigation measures that rule out adverse effects are included.
- Based on the high-level nature of the plan information and uncertainty regarding future project scope, potential impacts on designated European sites and associated mitigation options are currently unknown. Therefore, it is not possible to rule out potential adverse effects on the integrity of European sites as a result of the Plan.
- When further detail on individual plans or projects are brought forward, these will be assessed through the HRA process. If adverse effects on the integrity of European sites cannot be ruled out alone or in-combination following the addition of mitigation measures, a Stage 3 Assessment of Alternatives will be required.

Disclaimer

This report is the result of work undertaken in January 2024. This report refers, within the limitations stated, to the information provided within the Strategic Transport Plan 2. Changes in legislation, guidance, best practice, etc. may necessitate a re-assessment/survey. No warranty is given as to the possibility of future changes of the document provided.

This report is produced solely for the benefit of Transport for the North and no liability is accepted for any reliance placed on it by any other party. This report is prepared for the proposed uses stated in the report and should not be used in a different context.

A.1 European Sites Qualifying Features and Conservation Objectives

A.1.1 European Sites Qualifying Features

Table A1.1: European sites and qualifying features. Priority features are denoted by an Asterix (*) and an important orchid site are denoted by a double Asterix (**)

European Site Designation	Site Name	Qualifying Feature
SAC	Arnecliff & Park Hole Woods[12]	Annex I habitats present as a qualifying feature, but not a primary reason for selection: • 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles Annex II species that are a primary reason for selection of this site: • 1421 Killarney fern *Trichomanes speciosum*
	Asby Complex[13]	Annex I habitats that are a primary reason for selection of this site: • 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festusto-Brometalia)** • 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae)* • 7220 Petrifying springs with tufa formation (*Cratoneurion*) • 7230 Alkaline fens • 8240 Limestone pavements* Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara spp.* • 4030 European dry heaths • 7210 Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae** Annex II species that are a primary reason for selection of this site: • 1013 Geyer's whorl snail *Vertigo geyeri* • 1393 Slender green feather-moss *Drepanocladus (Hamatocaulis) vernicosus*
	Berwickshire & North Northumberland Coast[14]	Annex I habitats that are a primary reason for selection of this site: • 1140 Mudflats and sandflats not covered by seawater at low tide • 1160 Large shallow inlets and bays • 1170 Reefs • 8330 Submerged or partially submerged sea caves Annex II species that are a primary reason for selection of this site

[12] https://sac.jncc.gov.uk/site/UK0030142

[13] https://sac.jncc.gov.uk/site/UK0014778

[14] https://sac.jncc.gov.uk/site/UK0017072

European Site Designation	Site Name	Qualifying Feature
		• 1364 Grey seal *Halichoerus grypus*
	Craven Limestone Complex[15]	Annex I habitats that are a primary reason for selection of this site: • 3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara spp*. • 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festusto-Brometalia)** • 6410 *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) • 7110 Active raised bogs*priority feature • 7220 Petrifying springs with tufa formation (*Cratoneurion*) • 7230 Alkaline fens • 8240 Limestone pavements* Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 6130 Calaminarian grasslands of the *Violetalia calaminariae* • 9130 *Tilio-Acerion* forests of slopes, screes and ravines* Annex II species that are a primary reason for selection of this site: • 1092 White-clawed (or Atlantic stream) crayfish *Austropotamobius pallipes* • 1163 Bullhead *Cottus gobio* • 1902 Lady's-slipper orchid *Cypripedium calceolus*
	Dee Estuary[16]	Annex I habitats that are a primary reason for selection of this site: • 1140 Mudflats and sandflats not covered by seawater at low tide • 1310 Salicornia and other annuals colonising mud and sand • 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae)* Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 1130 Estuaries • 1210 Annual vegetation of drift lines • 1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts • 2110 Embryonic shifting dunes • 2120 Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes") • 2130 Fixed coastal dunes with herbaceous vegetation ("grey dunes")* • 2190 Humid dune slacks Annex II species present as a qualifying feature, but not a primary reason for site selection

[15] https://sac.jncc.gov.uk/site/UK0014776

[16]

European Site Designation	Site Name	Qualifying Feature
		• 1095 Sea lamprey *Petromyzon marinus* • 1099 River lamprey *Lampetra fluviatilis* • 1395 Petalwort *Petalophyllum ralfsii*
	Drigg Coast[17]	Annex I habitats that are a primary reason for selection of this site • 1130 Estuaries • 2150 Atlantic decalcified fixed dunes *Calluno-Ulicetea** • 2170 Dunes with *Salix repens* ssp. *argentea Salicon arenariae* Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site • 1140 Mudflats and sandflats not covered by seawater at low tide • 1310 *Salicornia* and other annuals colonising mud and sand • 1330 Atlantic salt meadows *Gluco-Puccinellietalia maritimae* • 2110 Embryonic shifting dunes • 2120 Shifting dunes along the shoreline with *Ammophila arenaria (*white dunes) • 2130 Fixed coastal dunes with herbaceous vegetation (“grey dunes”)* • 2190 Humid dune slacks
	Ellers Wood & Sand Dale[18]	Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 7220 Petrifying springs with tufa formation (*Cratoneurion*) Annex II species that are a primary reason for selection of this site: • 1013 Geyer’s whorl snail
	Humber Estuary[19]	Annex I habitats that are a primary reason for selection of this site: • 1130 Estuaries • 1140 Mudflats and sandflats not covered by seawater at low tide Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site • 1110 Sandbanks which are slightly covered by sea water all the time • 1150 Coastal lagoons* • 1310 *Salicornia* and other annuals colonising mud and sand • 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) • 2110 Embryonic shifting dunes

[17] https://sac.jncc.gov.uk/site/UK0013031

[18] https://sac.jncc.gov.uk/site/UK0030039

[19] https://sac.jncc.gov.uk/site/UK0030170

European Site Designation	Site Name	Qualifying Feature
		• 2120 Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes") • 2130 Fixed coastal dunes with herbaceous vegetation ("grey dunes")* • 2160 Dunes with *Hippophae rhamnoides* Annex II species present as a qualifying feature, but not a primary reason for site selection: • 1095 Sea lamprey • 1099 River lamprey • 1364 Grey seal
	Moor House-Upper Teesdale[20]	Annex I habitats that are a primary reason for selection of this site: • 3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara spp*. • 4060 Alpine and Boreal heaths • 5130 *Juniperus communis* formations on heaths or calcareous grasslands • 6130 Calaminarian grasslands of the *Violetalia calaminariae* • 6150 Siliceous alpine and boreal grasslands • 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festusto-Brometalia)** • 6410 *Molinia* meadows on calcareous. Peaty or clayey-silt-laden soils (*Molinion caeruleae*) • 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels • 6520 Mountain hay meadows • 7130 Blanket bogs (if active bog)* • 7220 Petrifying springs with tufa formation (*Cratoneurion*)* • 7230 Alkaline fens • 7240 Alpine pioneer formations of the *Caricion bicoloris-atrofuscae** • 8110 Siliceous scree of the montane to snow levels *(Androsacetalia alpinae* and *Galeopsietalia ladani*) • 8120 Calcareous and calchist screes of the montane to alpine levels (*Thlaspieta rotundifolii*) • 8210 Calcareous rocky slopes with chasmophytic vegetation • 8220 Siliceous rocky slopes with chasmophytic vegetation Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 4030 European dry heaths • 8240 Limestone pavements* Annex II species that are a primary reason for selection of this site • 1015 Round-mouthed whorl snail *Vertigo genesii*

[20] https://sac.jncc.gov.uk/site/UK0014774

European Site Designation	Site Name	Qualifying Feature
		• 1528 Marsh saxifrage *Saxifraga hirculus*
	Morecambe Bay[21]	Annex I habitats that are a primary reason for selection of this site: • 1130 Estuaries • 1140 Mudflats and sandflats not covered by seawater at low tide • 1160 Large shallow inlets and bays • 1220 Perennial vegetation of stony banks • 1310 *Salicornia* and other annuals colonising mud and sand • 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) • 2120 Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes") • 2130 Fixed coastal dunes with herbaceous vegetation ("grey dunes")* • 2190 Humid dune slacks Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 1110 Sandbanks which are slightly covered by sea water all the time • 1150 Coastal lagoons* • 1170 Reefs • 2110 Embryonic shifting dunes • 2150 Atlantic decalcified fixed dunes (Calluno-Ulicetea)* • 2170 Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*) Annex II species that are a primary reason for selection of this site: • 1166 Great crested newt *Triturus cristatus*
	Morecambe Bay Pavements[22]	Annex I habitats that are a primary reason for selection of this site: • 3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara spp*. • 5130 *Juniperus communis* formations on heaths or calcareous grasslands • 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia)** • 8240 Limestone pavements* • 9180 Tilio-Acerion forests of slopes, screes and ravines* • 91J0 *Taxus baccata* woods of the British Isles* Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 4030 European dry heaths

[21] https://sac.jncc.gov.uk/site/UK0013027

[22] https://sac.jncc.gov.uk/site/UK0014777

European Site Designation	Site Name	Qualifying Feature
		• 7210 Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae** • 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles Annex II species that are a primary reason for selection of this site • 1014 Narrow-mouthed whorl snail *Vertigo angustior*
	River Dee and Bala Lake[23]	Annex I habitats that are a primary reason for selection of this site • 3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and Callitricho-Batrachion vegetation Annex II species that are a primary reason for selection of this site • 1106 Atlantic salmon *Salmo salar* • 1831 Floating water-plantain *Luronium natans* Annex II species present as a qualifying feature, but not a primary reason for site selection • 1095 Sea lamprey • 1096 Brook lamprey *Lampetra planeri* • 1099 River lamprey • 1163 Bullhead • 1355 Otter *Lutra lutra*
	River Derwent[24]	Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 3260 Water courses of plain to montane levels with the *Ramunculion fluitantis* and Callitricho-Batrachion vegetation Annex II species that are a primary reason for selection of this site: • 1099 River lamprey *Lampetra fluviatilis* Annex II species present as a qualifying feature, but not a primary reason for site selection: • 1095 Sea lamprey • 1163 Bullhead • 1355 Otter
	River Derwent & Bassenthwaite Lake[25]	Annex I habitats that are a primary reason for selection of this site • 3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the Isoëto-Nanojuncetea Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site.

[23] https://sac.jncc.gov.uk/site/UK0030252

[24] https://sac.jncc.gov.uk/site/UK0030253

[25] https://sac.jncc.gov.uk/site/UK0030032

European Site Designation	Site Name	Qualifying Feature
		• 3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and Callitricho-Batrachion vegetation Annex II species that are a primary reason for selection of this site: • 1065 Marsh fritillary butterfly *Euphydryas (Eurodryas, Hypodryas) aurinia* • 1095 Sea lamprey • 1096 Brook lamprey • 1106 Atlantic salmon • 1355 Otter • 1831 Floating water-plantain
	River Eden[26]	Annex I habitats that are a primary reason for selection of this site: • 3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the Isoëto-Nanojuncetea • 3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and Callitricho-Batrachion vegetation • 91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, *Alnion incanae, Salicion albae*)* Annex II species that are a primary reason for selection of this site: • 1092 White-clawed (or Atlantic stream) crayfish • 1095 Sea lamprey • 1096 Brook lamprey • 1099 River lamprey • 1106 Atlantic salmon • 1163 Bullhead • 1355 Otter
	River Kent[27]	Annex I habitats present as a qualifying feature, but not a primary for selection of this site: • 3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and Callitricho-Batrachion vegetation Annex II species that are a primary reason for selection of this sitee: • 1092 White-clawed (or Atlantic stream) crayfish *Austopotamobius pallipes* Annex II species present as a qualifying feature, but not a primary reason for site selection:

[26] https://sac.jncc.gov.uk/site/UK0012643

[27] https://sac.jncc.gov.uk/site/UK0030256

European Site Designation	Site Name	Qualifying Feature
		• 1029 Freshwater pearl mussel *Margaritifera margaritifera* • 1163 Bullhead
	Roman Wall Loughs[28]	Annex I habitats that are a primary reason for selection of this site: • Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* – type vegetation
	Sefton Coast[29]	Annex I habitats that are a primary reason for selection of this site: • 2110 Embryonic shifting dunes • 2120 Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes") • 2130 "Fixed coastal dunes with herbaceous vegetation ("grey dunes")* • 2170 Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*) • 2190 Humid dune slacks Annex II species that are a primary reason for selection of this site: • 1395 Petalwort Annex II species present as a qualifying feature, but not a primary reason for site selection: • 1166 Great crested newt
	Beast Cliff-Whitby (Robin Hood's Bay)[30]	Annex I habitats that are a primary reason for selection of this site • 1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts
	Bolton Fell Moss[31]	Annex I habitats that are a primary reason for selection of this site: • 7120 Degraded raised bogs still capable of natural regeneration
	Borrowdale Woodland Complex[32]	Annex I habitats that are a primary reason for selection of this site • 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site • 8220 Siliceous rocky slopes with chasmophytic vegetation • 91D0 Bog woodland*

[28] https://sac.jncc.gov.uk/site/UK0030267

[29] https://sac.jncc.gov.uk/site/UK0013076

[30] https://sac.jncc.gov.uk/site/UK0030086

[31] https://sac.jncc.gov.uk/site/UK0030362

[32] https://sac.jncc.gov.uk/site/UK0012745

European Site Designation	Site Name	Qualifying Feature
	Calf Hill & Cragg Woods[33]	Annex I habitats that are a primary reason for selection of this site: • 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles. Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, *Alnion incanae*, *Salicion albae*)*
	Castle Eden Dene[34]	Annex I habitats that are a primary reason for selection of this site: • 91J0 *Taxus baccata* woods of the British Isles*
	Harbottle Moors[35]	Annex I habitats that are a primary reason for selection of this site • 4030 European dry heaths
	Ford Moss[36]	Annex I habitats that are a primary reason for selection of this site: • 7110 Active raised bogs*
	Ox Close[37]	Annex I habitats that are a primary reason for selection of this site • 6130 Calaminarian grasslands of the *Violetalia calaminariae* Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site • 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia)** • 9180 Tilio-Acerion forests of slopes, screes and ravines*
	Roundsea Wood & Mosses[38]	Annex I habitats that are a primary reason for selection of this site • 7110 Active raised bogs* • 7120 Degraded raised bogs still capable of natural regeneration • 9180 Tilio-Acerion forests of slopes, screes and ravines* • 91J0 Taxus baccata woods of the British Isles*

[33] https://sac.jncc.gov.uk/site/UK0030106

[34] https://sac.jncc.gov.uk/site/UK0012768

[35] https://sac.jncc.gov.uk/site/UK0030333

[36] https://sac.jncc.gov.uk/site/UK0030151

[37] https://sac.jncc.gov.uk/site/UK0030234

[38] https://sac.jncc.gov.uk/site/UK0019834

European Site Designation	Site Name	Qualifying Feature
	Simonside Hills[39]	Annex I habitats that are a primary reason for selection of this site: • 4030 European dry heaths Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 7130 Blanket bogs (if active bog)*
	Skipwith Common[40]	Annex I habitats that are a primary reason for selection of this site: • 4010 Northern Atlantic wet heaths with *Erica tetralix* • 4030 European dry heaths
	South Pennine Moors[41]	Annex I habitats that are a primary reason for selection of this site: • 4030 European dry heaths • 7130 Blanket bogs (if active bog)* • 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 4010 Northern Atlantic wet heaths with Erica tetralix • 7140 Transition mires and quaking bogs
	South Solway Mosses[42]	Annex I habitats that are a primary reason for selection of this site: • 7110 Active raised bogs* Annex habitats present as a qualifying feature, but not a primary reason for selection of this site: • 7120 Degraded raised bogs still capable of natural regeneration
	Strensall Common[43]	Annex I habitats that are a primary reason for selection of this site: • 4010 Northern Atlantic wet heaths with *Erica tetralix* • 4030 European dry heaths
	Subberthwaite, Blewits & Torver Low Commons[44]	Annex I habitats that are a primary reason for selection of this site: • 7140 Transition mires and quaking bogs

[39] https://sac.jncc.gov.uk/site/UK0030336

[40] https://sac.jncc.gov.uk/site/UK0030276

[41] https://sac.jncc.gov.uk/site/UK0030280

[42] https://sac.jncc.gov.uk/site/UK0030310

[43] https://sac.jncc.gov.uk/site/UK0030284

[44] https://sac.jncc.gov.uk/site/UK0030285

European Site Designation	Site Name	Qualifying Feature
		Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 7150 Depression on peat substrates of the *Rhynchosporion*
	Tarn Moss[45]	Annex I habitats that are a primary reason for selection of this site: • 7140 Transition mires and quaking bogs
	Thorne Moor[46]	Annex I habitats that are a primary reason for selection of this site: • 7120 Degraded raised bogs still capable of natural regeneration
	Thrislington[47]	Annex I habitats that are a primary reason for selection of this site: • 6210 Semi-natural grasslands and scrublands facies on calcareous substrates (Festuco-Brometalia)**
	Tyne & Allen River Gravels[48]	Annex I habitats that are a primary reason for selection of this site: • 6130 Calaminarian grasslands of the *Violetalia calaminariae*
	Tyne & Nent[49]	Annex I habitats that are a primary reason for selection of this site: • 6130 Calaminarian grasslands of the *Violetalia calaminariae*
	Ullswater Oakwoods[50]	Annex I habitats that are a primary reason for selection of this site: • 91A0 Old sessile oak woods with *Ilex and Blechnum* in the British Isles
	Walton Moss[51]	Annex I habitats that are a primary reason for selection of this site: • 7110 Active raised bogs* • 7120 Degraded raised bogs still capable of natural regeneration
	Wast Water[52]	Annex I habitats that are a primary reason for selection of this site: • 3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea* and/or of the Isoëto-Nanojuncetea

[45] https://sac.jncc.gov.uk/site/UK0030339

[46] https://sac.jncc.gov.uk/site/UK0012915

[47] https://sac.jncc.gov.uk/site/UK0012838

[48] https://sac.jncc.gov.uk/site/UK0012816

[49] https://sac.jncc.gov.uk/site/UK0030293

[50] https://sac.jncc.gov.uk/site/UK0030295

[51] https://sac.jncc.gov.uk/site/UK0030093

[52] https://sac.jncc.gov.uk/site/UK0030063

European Site Designation	Site Name	Qualifying Feature
	West Midland Mosses	Annex I habitats that are a primary reason for selection of this site: • 3160 Natural dystrophic lakes and ponds • 7140 Transition mires and quaking bogs
	Witherslack Mosses[53]	Annex I habitats that are a primary reason for selection of this site: • 7110 Active raised bogs* • 7120 Degraded raised bogs still capable of natural regeneration
	Yewbarrow Woods[54]	Annex I habitats that are a primary reason for selection of this site: • 91J0 *Taxus baccata* woods of the British Isles* Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 5130 *Juniperus communis* formations on heaths or calcareous grasslands • 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles
	Border Mires, Kielder-Butterburn[55]	Annex I habitats that are a primary reason for selection of this site: • 7130 Blanket bogs (if active bog)* • 7140 Transition mires and quaking bogs Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site • 4010 Northern Atlantic wet heaths with Erica tetralix • 4030 European dry heaths • 7220 Petrifying springs with tufa formation (*Cratoneurion*)*
	Duddon Mosses[56]	Annex I habitats that are a primary reason for selection of this site: • 7110 Active raised bogs* • 7120 Degraded raised bogs still capable of natural regeneration
	Durham Coast[57]	Annex I habitats that are a primary reason for selection of this site: • 1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts

[53] https://sac.jncc.gov.uk/site/UK0030302

[54] https://sac.jncc.gov.uk/site/UK0030306

[55] https://sac.jncc.gov.uk/site/UK0012923

[56] https://sac.jncc.gov.uk/site/UK0019833

[57] https://sac.jncc.gov.uk/site/UK0030140

European Site Designation	Site Name	Qualifying Feature
	Fen Bog[58]	Annex I habitats that are a primary reason for selection of this site: • 7140 Transition mires and quaking bogs
	Flamborough Head[59]	Annex I habitats that are a primary reason for selection of this site: • 1170 Reefs • 1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts • 8330 Submerged or partially submerged sea caves
	Hatfield Moor[60]	Annex I habitats that are a primary reason for selection of this site: • 7120 Degraded raised bogs still capable of natural regeneration
	Helbeck & Swindale Woods[61]	Annex I habitats that are a primary reason for selection of this site: • 9180 Tilio-Acerion forests of slopes, screes and ravines*
	Ingleborough Complex[62]	Annex I habitats that are a primary reason for selection of this site • 5130 Juniperus communis formations on heaths or calcareous grasslands • 7230 Alkaline fens • 8210 Calcareous rocky slopes with chasmophytic vegetation • 8240 Limestone pavements* Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site • 6210 Semi-natural dry grasslands and scrublands facies on calcareous substrates (Festuco-Brometalia)** • 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) • 7130 Blanket bogs (if active bog)* • 7220 Petrifying springs with tufa formation (Cratoneurion)* • 9180 Tilio-Acerion forests of slopes, screes and ravines*
	Manchester Mosses[63]	Annex I habitats that are a primary reason for selection of this site:

[58] https://sac.jncc.gov.uk/site/UK0030332

[59] https://sac.jncc.gov.uk/site/UK0013036

[60] https://sac.jncc.gov.uk/site/UK0030166

[61] https://sac.jncc.gov.uk/site/UK0030167

[62] https://sac.jncc.gov.uk/site/UK0012782

[63] https://sac.jncc.gov.uk/site/UK0030200

European Site Designation	Site Name	Qualifying Feature
		• 7120 Degraded raised bogs still capable of natural regeneration
	Naddle Forest[64]	Annex I habitats that are a primary reason for selection of this site: • 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site: • 4010 Northern Atlantic wet heaths with *Erica tetralix* • 4030 European dry heaths
	Newham Fen[65]	Annex I habitats that are a primary reason for selection of this site: • 7230 Alkaline fens
	North Pennine Dales Meadows[66]	Annex I habitats that are a primary reason for selection of this site: • 6520 Mountain hay meadows Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 6410 *Molinia* meadows on calcareous, peaty, or clayey-silt-laden soils (*Molinion caeruleae)*
	North York Moors[67]	Annex I habitats that are a primary reason for selection of this site: • 4010 Northern Atlantic wet heaths with *Erica tetralix* • 4030 European dry heaths Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 7130 Blanket bogs (if active bog)*
	Oak Mere[68]	Annex I habitats that are a primary reason for selection of this site: • 3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) • 7140 Transition mires and quaking bogs
	Clints Quarry[69]	Annex II species present as a qualifying feature, but not a primary reason for site selection: • 1166 Great crested newt

[64] https://sac.jncc.gov.uk/site/UK0030335

[65] https://sac.jncc.gov.uk/site/UK0012890

[66] https://sac.jncc.gov.uk/site/UK0014775

[67] https://sac.jncc.gov.uk/site/UK0030228

[68] https://sac.jncc.gov.uk/site/UK0012970

[69] https://sac.jncc.gov.uk/site/UK0030035

European Site Designation	Site Name	Qualifying Feature
	Cumbrian Marsh Fritillary Site[70]	Annex II species that are a primary reason for selection of this site: • 1065 Marsh fritillary butterfly *Euphydryas (Eurodryas, Hypodryas) aurinia*
	Denby Grange Colliery Ponds[71]	Annex II species that are a primary reason for selection of this site: • 1166 Great crested newt
	Kirk Deighton[72]	Annex II species that are a primary reason for selection of this site: • 1166 Great crested newt
	River Ehen[73]	Annex II species that are a primary reason for selection of this site: • 1029 Freshwater pearl mussel *Margaritifera margaritifera* Annex II species present as a qualifying feature, but not a primary reason for site selection: • 1106 Atlantic salmon
	Rixton Clay Pits[74]	Annex II species that are a primary reason for selection of this site: • 1166 Great crested newt
	Rochdale Canal[75]	Annex II species that are a primary reason for selection of this site: • 1831 Floating water-plantain
	Lake District High Fells[76]	Annex I habitats that are a primary reason for selection of this site: • 3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the Isoëto-Nanojuncetea • 4010 Northern Atlantic wet heaths with *Erica tetralix* • 4030 European dry heaths • Alpine and Boreal heaths • 5130 *Juniperus communis* formations on heaths or calcareous grasslands • 6150 Siliceous alpine and boreal grasslands

[70] https://sac.jncc.gov.uk/site/UK0030126

[71] https://sac.jncc.gov.uk/site/UK0030036

[72] https://sac.jncc.gov.uk/site/UK0030178

[73] https://sac.jncc.gov.uk/site/UK0030057

[74] https://sac.jncc.gov.uk/site/UK0030265

[75] https://sac.jncc.gov.uk/site/UK0030266

[76] https://sac.jncc.gov.uk/site/UK0012960

European Site Designation	Site Name	Qualifying Feature
		• 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels • 7130 Blanket bogs (if active bog)* • 8110 Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) • 8220 Siliceous rocky slopes with chasmophytic vegetation • 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 6230 Species-rich *Nardus* grassland, on siliceous substrates in mountain areas (and submountain areas in continental Europe)* • 7230 Alkaline fens • 8210 Calcareous rocky slopes with chasmophytic vegetation Annex II species present as a qualifying feature, but not a primary reason for site selection: • 1393 Slender green feather-moss
	Lower Derwent Valley[77]	Annex I habitats that are a primary reason for selection of this site: • 6510 Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis*) Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, *Alnion incanae, Salicion albae*)* Annex II species present as a qualifying feature, but not a primary reason for site selection: • 1355 Otter
	North Northumberland Dunes[78]	Annex I habitats that are a primary reason for selection of this site: • 2110 Embryonic shifting dunes • 2120 Shifting dunes along the shoreline with *Ammophila arenaria* (“white dunes”) • 2130 Fixed coastal dunes with herbaceous vegetation (“grey dunes”)* • 2170 Dunes with *Salix repens spp. argentea* (*Salicion arenariae*) • 2190 Humid dune slacks Annex II species that are a primary reason for selection of this site: • 1395 Petalwort
	North Pennine Moors[79]	Annex I habitats that are a primary reason for selection of this site:

[77] https://sac.jncc.gov.uk/site/UK0012844

[78] https://sac.jncc.gov.uk/site/UK0017097

[79] https://sac.jncc.gov.uk/site/UK0030033

European Site Designation	Site Name	Qualifying Feature
		• 4030 European dry heaths • 5130 *Juniperus communis* formations on heaths or calcareous grasslands • 7130 Blanket bogs (if active bogs)* • 7220 Petrifying springs with tufa formation (*Cratoneurion*)* • 8220 Siliceous rocky slopes with chasmophytic vegetation • 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles Annex I habitats present as a qualifying, but not a primary reason for selection of this site: • 4010 Northern Atlantic wet heaths with *Erica tetralix* • 6130 Calaminarian grasslands of the *Violetalia calaminariae* • 6150 Siliceous alpine and boreal grasslands • 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia)** • 7230 Alkaline fens • 8110 Siliceous scree of the montane to snow levels (*Androsaetalia alpinae* and *Galeopsietalia ladani*) • 8210 Calcareous rocky slopes with chasmophytic vegetation Annex II species present as a qualifying feature, but not a primary reason for site selection: • 1528 Marsh saxifrage
	Solway Firth[80]	Annex I habitats that are a primary reason for selection of this site: • 1110 Sandbanks which are slightly covered by sea water all the time • 1130 Estuaries • 1140 Mudflats and sandflats not covered by seawater at low tide • 1310 *Salicornia* and other annuals colonising mud and sand • 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 1170 Reefs • 1220 Perennial vegetation of stony banks • 2130 Fixed coastal dunes with herbaceous vegetation (“grey dunes”)* Annex II species that are a primary reason for selection of this site • 1095 Sea lamprey • 1099 River lamprey

[80] https://sac.jncc.gov.uk/site/UK0013025

European Site Designation	Site Name	Qualifying Feature
SPA	Bowland Fells[81]	The site qualifies under Article 4.1 of the Directive (2009/147/EC) as it is used regularly by 1% or more of the Great Britain populations of Annex I species hen harrier *Circus cyaneus* and merlin *Falco columbarius.* The site qualifies under Article 4.2 of the Directive (2009/147/EC) as it is used regularly by 1% or more of the biogeographical populations of lesser black-backed gull *Larus fuscus graellsii.*
	Coquet Island[82]	The site qualifies under Article 4 of the Directive (2009/147/EC) for supporting more than 1% of the Great Britain populations of common tern *Sterna hirundo*, arctic term *Sterna paradisaea*, roseate tern *Sterna dougallii*, and sandwich turn *Sterna sandvicensis.* The site qualifies under Article 4.2 of the Directive (2009/147/EC) as it used regularly by over 20,000 sea birds in any season, including nationally important numbers of Atlantic puffin *Fratercula arctica* and black-headed gull *Chroicocephalus ridibundus.*
	Farne Islands[83]	The site qualifies under Article 4 of the Directive (2009/147/EC) for supporting more than 1% of the Great Britain populations of species listed in Annex I of the EC Birds Directive, including breeding individuals of common tern, arctic tern, Roseate tern, and sandwich tern. The site also supports over 32000 migratory pairs of common guillemot *Uria aalge.* The site qualifies under Article 4.2 of the Directive (2009/147/EC) as it is used regularly by over 20,000 seabirds in any season including national important numbers of breeding individuals of Atlantic puffin, great cormorant *Phalacrocorax carbo*, European shag *Gulosus aristotelis*, and black-legged kittiwake *Rissa tridactyla.*
	Flamborough and Filey Coast[84]	The site qualifies under Article 4.2 of the Directive (2009/147/EC) by supporting over 1% of the biogeographical regions migratory and breeding populations of black-legged kittiwake, northern gannet *Morus bassanus*, common guillemot, and razorbill *Alca torda.*
	Holburn Lake & Moss[85]	The site qualifies under Article 4.1 of the Directive (2009/147/EC) by supporting internationally important numbers of wintering greylag goose *Anser anser*.
	Hornsea Mere[86]	The site qualifies under Article 4.2 of the Directive (2009/147/EC) by supporting non-breeding population of mute swan *Cygnus olor* and Gadwall *Anas strepera*

[81] http://publications.naturalengland.org.uk/publication/5922368258048000

[82] http://publications.naturalengland.org.uk/publication/5446040786305024

[83] http://publications.naturalengland.org.uk/publication/4521874151178240

[84] http://publications.naturalengland.org.uk/publication/5400434877399040

[85] http://publications.naturalengland.org.uk/publication/5103297161592832

[86] http://publications.naturalengland.org.uk/publication/5144340473053184

European Site Designation	Site Name	Qualifying Feature
	Humber Estuary[87]	The site qualifies under Article 4.1 of the Directive (79/409/EEC) as it used regularly by 1% or more of the Great Britain populations of avocet *Recurvirostra avosetta* (wintering), bittern *Botaurus stellaris (*wintering and breeding), hen harrier (wintering), golden plover *Pluvialis apricaria* (wintering), bar-tailed godwit *Limosa lapponica* (wintering), ruff *Philomachus pugnax* (passing), marsh harrier *Circus aeruginosus* (breeding), and little tern *sterna albifrons* (breeding). The site qualifies under Article 4.2 of the Directive (79/409/EEC) as it is used by 1% or more of the biogeographical populations of migratory shelduck *Tadorna tadorna*, knot *Calidris canutus*, dunlin *Calidris alpina*, black-tailed godwit *Limosa limosa*, and redshank *Tringa totanus*,
	Leighton Moss[88]	The site qualifies under Article 4.1 of the Directive (79/409/EEC) as it supports breeding population of bittern.
	Lindisfarne[89]	The site qualifies under Article 4.1 of the Directive (79/409/EEC) as it supports non-breeding populations of whooper swan *Cygnus cygnus*, greylag goose, light-bellied brent goose *Branta bernicla hrota*, common shelduck, Eurasian wigeon *Anas penelope*, common eider *Somateria mollissima*, long-tailed duck *Clangula hyemalis*, common scoter *Melanitta nigra*, red-breasted merganser *Mergus serrator*, ringed plover *Charadrius hiaticula*, golden plover, grey plover *Pluvialis squatarola*, sanderling *Calidris alba*, dunlin, bar-tailed godwit, redshank roseate tern and little tern.
	Liverpool Bay[90]	The site qualifies under Article 4.1 of the Birds Directive (2009/147/EC) as it is used regularly by 1% or more of Great Britain populations of non-breeding red-throated diver *Gavia stellatai* and little gull *Hydrocoloeus minutus*, and breeding little tern *Sternula albifrons* and common tern. The site qualifies under Article 4.2 of the Directive (79/409/EEC) as it used regularly by 1% more of the biogeographical population of migratory non-breeding common scoter. The site also notably supports red-breasted merganser, and great cormorant *Phalacrocorax carbo*.
	Lower Derwent Valley[91]	The site qualifies under Article 4.1 of the Directive (2009/409/EEC) as it supports non-breeding population of bewick's swan *Cygnus columbianus bewickii*, Eurasian wigeon, Eurasian teal *Anas crecca*, and golden plover. The site also supports breeding shoveler *Anas clypeata.*
	Martin Mere[92]	The site qualifies under Article 4.1 of the Wild Birds Directive as it supports internationally significant numbers of whooper swan (non-breeding), pink-footed goose *Anser brachyrhynchus* (non-breeding), Eurasian teal *Anas crecca*, and Northern pintail *Anas acuta* (non-breeding).

[87] http://publications.naturalengland.org.uk/publication/5382184353398784

[88] http://publications.naturalengland.org.uk/publication/4548734637572096

[89] http://publications.naturalengland.org.uk/publication/4529235456688128

[90] http://publications.naturalengland.org.uk/publication/5089733892898816

[91] http://publications.naturalengland.org.uk/publication/6223883187257344

[92] http://publications.naturalengland.org.uk/publication/4833056372293632

European Site Designation	Site Name	Qualifying Feature
		The site qualifies under Article 4.2 of more than 20,000 waterfowl birds, including pochar *Aytha farina*, mallard *Anas platyrhynchos*, teal *Anas crecca*, Eurasian wigeon, pintail *Anas acuta*, pink-footed goose *Anser brachyrhynchus*, whooper swan *Cygnus cygmus*, and Bewick's swan. The site also hosts broad habitats of open standing water and other adjacent waterbodies, lowland damp neutral grassland, swamp and tall herb fen, and arable land outside of SPA used for feed which are important for waterbird assemblages.
	Mersey Estuary[93]	The site qualifies under Article 4.1 of the Directive 970/409/EEC) as it is used regularly by 1% or more of the Great Britain populations of wintering golden plover. The site qualifies under Article 4.2 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the biogeographical populations of wintering shelduck, teal, pintail, dunlin, black-tailed godwit, and passing population of redshank. In the non-breeding season, the site supports over 100,000 individual waterbirds including great crested grebe, shelduck, Eurasian wigeon, ringed plover, golden plover, grey plover, lapwing *Vanellus vanellus*, and curlew *Numenius arquata*. Bewick's swan, whooper swan, merlin, peregrine *Falco peregrinus*, ruff, bar-tailed godwit, and short-eared owl *Asio flammeus* occur in non-breeding numbers of less than European importance (less than 1% of the GB population).
	Mersey Narrows & North Wirral Foreshore[94]	The site qualifies under Article 4.1 of the Directive (2009/147/EC) as it supports 1% or more of the Great Britain populations of non-breeding bar-tailed godwit and breeding common tern. The site is an important location in the UK for non-breeding little gull and common tern. The site qualifies under Article 4.2 of the Directive (2009/147/EC) as it is used by 1% or more of the biogeographical populations of non-breeding knot. The site also supports over 30,000 individual waterbirds including cormorant, oystercatcher *Haematopus ostralegus*, grey plover, sanderling, knot, dunlin, bar-tailed godwit, and redshank.
	Morecambe Bay & Duddon Estuary[95]	The site contains the largest continuous area of intertidal mudflats and sandflats in the UK which supports a variety of infaunal communities including cockle bed, and habitats of saltmarsh and transitional habitats as well as sand dune systems and coastal lagoons. Within the Bay there are areas of stony reef (known locally as scars or skears) which also support blue mussel beds and honeycomb worm *Sabellaria alveolata* reefs. The site qualifies under Article 4.1 of the Directive (2009/147/EC) as it is used regularly by 1% or more of the Great Britain population of non-breeding whooper swan, little egret *Egretta garzetta*, golden plover, bar-tailed godwit, ruff, Mediterranean gull *Larus melancephalus*, little tern, sandwich tern, common tern. The site qualifies under Article 4.2 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the biogeographical populations of migratory non-breeding including pink-footed goose, common shelduck, northern pintail, oystercatcher, and grey plover. It is used by over 20,000 seabirds in any season

[93] http://publications.naturalengland.org.uk/publication/5790848037945344

[94] http://publications.naturalengland.org.uk/publication/6521906232557568

[95] http://publications.naturalengland.org.uk/publication/6242841537806336

European Site Designation	Site Name	Qualifying Feature
		and over 20,000 waterbirds in any season, and supports an additional 19 species present in numbers exceeding 1% of the Great Britain population/or exceeding 2,000 individuals.
	North Pennine Moors[96]	The site qualifies under Article 4.1 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the Great Britain populations of the following breeding species listed in Annex I: hen harrier, merlin, peregrine, and golden plover. Two pairs of Montagu's harriers *Circus pygargus* are known to have bred within the site, and numbers of short-eared owl are still to be ascertained; both species are listed in Annex I.
	North York Moors[97]	The site qualifies under Article 4.1 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the Great Britain populations of breeding merlin and golden plover. The site also supports a rich upland breeding bird assemblage which includes short-eared owl, peregrine, hen harrier, redshank, red grouse *Lagopus lagopus scoticus* and nationally important numbers of curlew.
	Northumbria Coast[98]	The site qualifies under Article 4.1 of the Birds Directive (2009/147/EC) as it regularly supports more than 1% of the Great Britain populations of arctic tern and little tern. The site qualifies under Article 4.2 for supporting more than 1% of the biogeographical population of turnstone *Arenaria interpres* and purple sandpiper *Calidris maritima*.
	Peak District Moors (South Pennine Moors Phase 1)[99]	The site qualifies under Article 4.1 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the Great Britain population of Annex I species merlin, golden plover, and short-eared owl. The site supports a rich upland breeding bird assemblage which includes important numbers of peregrine, lapwing, snipe *Gallinago gallinago*, curlew, redshank, common sandpiper, whinchat *Saxicola rubetra*, wheatear *Oenanthe Oenanthe*, ring ouzel *Turdus torquatus* and twite *carduelis flavirostris*.
	Ribble & Alt Estuaries[100]	The site qualifies under Article 4.1 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the Great Britain population of ruff and common tern, and wintering bewick's swan, whooper swan, golden plover, bar-tailed godwit, lesser black-backed gull, ringed plover, sanderling, redshank, pink-footed goose, shelduck, Eurasian wigeon, teal, pintail, oystercatcher, grey plover, knot, sanderling, dunlin, black-tailed godwit, and redshank.
	Solway Firth[101]	The site qualifies under Article 4.1 (79/409/EEC) by regularly supporting a non-breeding population of European importance of the Annex I species red-throated diver, whooper swan, barnacle geese, golden plover, and bar-tailed godwit.

[96] http://publications.naturalengland.org.uk/publication/6079716435951616

[97] http://publications.naturalengland.org.uk/publication/6207512114102272

[98] http://publications.naturalengland.org.uk/publication/6372874327687168

[99] http://publications.naturalengland.org.uk/publication/6145889668169728

[100] http://publications.naturalengland.org.uk/publication/4868920422957056

[101] https://sitelink.nature.scot/site/10487

European Site Designation	Site Name	Qualifying Feature
		The site qualifies under Article 4.2 (79/409/EEC) by regularly supporting populations of European importance including pink-footed geese, pintail, scaup *Aythya marila*, oystercatcher, knot, curlew, and redshank. The site also qualifies by supporting populations of passing ringed plover, and for supporting over 20,000 water birds, many of which are nationally important; shelduck, teal, shoveler, goldeneye, grey plover, sanderling, dunlin, turnstone, common scoter, goosander, lapwing, cormorant, black-headed gull, common gull, and herring gull.
	South Pennine Moors Phase 2[102]	The site qualifies under Article 4.1 of the Directive (79/409/EEC) as it regularly supports breeding merlin, and golden plover. The site also hosts principal habitats to support these species including blanket bogs, dry heaths, wet heaths, and acid grassland.
	Teesmouth & Cleveland Coast[103]	The site qualifies under Article 4.1 of the Directive (79/409/EEC) as the site regularly supports more than 1% of the Great Britain population of Annex I species avocet, sandwich tern, common tern, little tern, and ruff. The site supports more than 1% of the biogeographical populations of red knot and redshank, and is used regularly by over 20,000 waterfowl or 20,000 seabirds in any season, for which it qualifies under Article 4.
	The Dee Estuary[104]	The site qualifies under Article 4.1 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the Great Britain populations listed in Annex I: bar-tailed godwit, common tern, little tern, and sandwich tern. The site qualifies under Article 4.2 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the biogeographical population of redshank, shelduck, teal, pintail, oystercatcher, grey plover, knot, dunlin, black-tailed godwit, and curlew. Non-qualifying species of interest that use the site include leach's petral *Oceonodromo leucorhoa*, little egret, Bewick's swan, short-eared owl, and kingfisher *Alcedo atthis*.
	Thorne & Hatfield Moors[105]	The site qualifies under Article 4.1 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the Great Britain population of nightjar *Caprimulgus europaeus*.
	Din Moss-Hoselaw Loch[106]	This site qualifies under Article 4.2 as a wetland of international importance for migratory species. It provides a roost for an average of 1,650 pink-footed geese (over 1% of the Icelandic breeding population) and 3,500 greylag geese (over 3% of the Icelandic-breeding population).

[102] http://publications.naturalengland.org.uk/publication/4885083764817920

[103] http://publications.naturalengland.org.uk/publication/6619918699069440

[104] http://publications.naturalengland.org.uk/publication/6557770283220992

[105] http://publications.naturalengland.org.uk/publication/6503407711944704

[106] https://sitelink.nature.scot/site/8489

European Site Designation	Site Name	Qualifying Feature
Ramsar	Rostherne Mere[107]	The site qualifies under: • Criterion 1 of the Ramsar convention as it one of the deepest and largest of the meres of the Shropshire-Cheshire Plain. Its shoreline is fringed with common reed *Phragmites australis*.
	Mersey Estuary[108]	The site qualifies under: • Criterion 5 of the Ramsar convention as it supports an internationally important assemblage of waterfowl. • Criterion 6 as it supports internationally important population of shelduck, black-tailed godwit, redshank, teal, northern pintail, and dunlin.
	The Dee Estuary[109]	The site qualifies under: • Criterion 1 of the Ramsar convention as it supports extensive intertidal mud and sand flats with large expanses of saltmarsh. Several Annex I habitats are supported at the site[5]. • Criterion 2 as it supports breeding colonies of the vulnerable natterjack toad *Bufo calamita.* • Criterion 5 as it supports internationally important populations of waterbirds. • Criterion 6 as it supports internationally important populations of teal, shelduck, oystercatcher, curlew, pintail, grey plover, knot, dunlin, black-tailed godwit, bar-tailed godwit, and redshank.
	Midland Meres & Mosses Phase 1[110]	The site qualifies under: • Criterion 1 of the Ramsar convention as the site comprises a diverse range of habitats from open water to raised bog. • Criterion 2 as it supports a rare species of plants associated with wetlands including give nationally scarce species together with an assemblage of rare wetland invertebrates.
	Midland Meres & Mosses Phase 2[111]	The site qualifies under: • Criterion 1 of the Ramsar convention as the site comprises a diverse range of habitats from open water to raised bog. • Criterion 2 as the site supports a number of rare species of plants associated with wetlands including cowbane *Cicuta virosa* and elongated sedge *Carex elongate*. *Dicranum lathamella* and *Sphagnum pulchrum* are also present.

[107] https://jncc.gov.uk/jncc-assets/RIS/UK11060.pdf

[108] https://rsis.ramsar.org/ris/785

[109] https://jncc.gov.uk/jncc-assets/RIS/UK11082.pdf

[110] https://jncc.gov.uk/jncc-assets/RIS/UK11043.pdf

[111] https://jncc.gov.uk/jncc-assets/RIS/UK11080.pdf

European Site Designation	Site Name	Qualifying Feature
	Esthwaite Water[112]	The site qualifies under: • Criterion 1 of the Ramsar convention as it is a good example of a mesotrophic lake, with a well developed hydrosere at the northern end. • Criterion 2 as it supports a rich assemblage of pondweed species and is the only know locality in England and Wales for slender naiad *Najas flexilis*.
	Solway Firth[113]	The site qualifies under: • Criterion 2 of the Ramsar convention as it supports over 10% of the British population of natterjack toad. • Criterion 5 as it supports an internationally important assemblage of waterfowl. • Criterion 6 as it supports an internationally important population of oystercatcher, whooper swan, pink-footed goose, barnacle goose, northern pintail, greater scaup, red knot, bar-tailed godwit, curlew and redshank.
	Irthinghead Mires[114]	The site qualifies under: • Criterion 1 of the Ramsar convention as it supports an outstanding example of undamaged blanket bogs which are characteristic of the vegetation of upland north-western Britain. • Criterion 2 of the Ramsar convention as it supports a notable variety of *Sphagnum* mosses. • Criterion 3 of the Ramsar convention as it supports butterburn flow, several rare plants, and rare spider *Eboria caliginosa*.
	Duddon Estuary[115]	The site qualifies under: • Criterion 2 of the Ramsar convention as it supports nationally important numbers of the rare natterjack toad and a rich assemblage of wetland plants and invertebrates; at least one nationally scarce plant and at least two British Red Data Book invertebrates. • Criterion 4 of the Ramsar convention as it supports nationally important numbers of waterfowl during spring and autumn passage. • Criterion 5 of the Ramsar convention as it supports an assemblage of internationally important waterfowl species. • Criterion 6 of the Ramsar convention as it supports the following qualifying species of international importance: northern pintail, red knot, and common redshank.

[112] https://jncc.gov.uk/jncc-assets/RIS/UK11024.pdf

[113] https://jncc.gov.uk/jncc-assets/RIS/UK11079.pdf

[114] https://jncc.gov.uk/jncc-assets/RIS/UK11032.pdf

[115] https://jncc.gov.uk/jncc-assets/RIS/UK11022.pdf

European Site Designation	Site Name	Qualifying Feature
	Morecambe Bay[116]	The site qualifies under: • Criterion 4 of the Ramsar convention as the site is a staging area for migratory waterfowl including internationally important numbers of passage ringed plover. • Criterion 5 as it supports internationally important assemblage of waterfowl. • Criterion 6 as it supports internationally important population of lesser black-backed gull, herring gull, shelduck, northern pintail, eider, oystercatcher, ringed plover, grey plover, sanderling, curlew, redshank, great-crested grebe, common goldeneye *Bucephala clangula*, Eurasian wigeon, red-breasted merganser, lapwing, dunlin, and bar-tailed godwit.
	Lower Derwent Valley[117]	The site qualifies under: • Criterion 1 as it represents of the most important examples of traditionally managed species-rich alluvial flood meadows habitats remaining in the UK, which play a substantial role in hydrological and ecological functioning of the Humber Basin. • Criterion 2 as it has a rich assemblage of wetland invertebrates including 16 species of dragonfly and damselfly. • Criterion 4 as it is a staging post for passage birds in spring, including nationally important numbers of ruff. • Criterion 5 as it supports an internationally important assemblage of waterfowl. • Criterion 6 as it supports an internationally important population of teal and Eurasian wigeon.
	Humber Estuary[118]	The site qualifies under: • Criterion 1 of the Ramsar convention as the site is a representative example of a near-natural estuary with the following component habitats: dune systems and humid dune slacks, estuarine waters, intertidal mud and sand flats, saltmarshes, and coastal brackish/saline lagoons. • Criterion 3 as it supports a breeding colony of grey seals at Donna Nook. It is the second largest grey seal colony in England and the furthest south regular breeding site on the east coast. The dune slacks at Saltfleetby-Theddlethorpe on the southern extremity of the Ramsar site are the most north-easterly breeding site in Great Britain of the natterjack toad. • Criterion 5 as it supports a waterfowl assemblage of international importance. • Criterion 6 as it supports internationally important populations of golden plover, red knot, dunlin, black-tailed godwit, redshank, shelduck, dunlin, black-tailed godwit, and bar-tailed godwit. • Criterion 8 as it acts as an important migration route for river lamprey and sea lamprey between coastal waters and their spawning areas.

[116] https://jncc.gov.uk/jncc-assets/RIS/UK11045.pdf

[117] https://jncc.gov.uk/jncc-assets/RIS/UK11037.pdf

[118] https://jncc.gov.uk/jncc-assets/RIS/UK11031.pdf

European Site Designation	Site Name	Qualifying Feature
	Ribble & Alt Estuaries[119]	The site qualifies under: • Criterion 2 of the Ramsar convention as it supports up to 40% of the Great Britain population of natterjack toads and petalwort *Petalophyllum ralfsii.*
	Leighton Moss[120]	The site qualifies under: • Criterion 1 of the Ramsar convention as it is an example of large reedbed habitat characteristic of the biogeographical region. The reedbeds are of particular importance as a northern outpost for breeding populations of great bittern, marsh harrier and bearded tit. Criterion 3 as it supports a range of breeding birds including great bitter, marsh harrier, and bearded tit. Species of national important numbers occur outside the breeding season including shoveler and water rail *Rallus aquaticus*.
	Martin Mere[121]	The site qualifies under: • Criterion 5 of the Ramsar convention as it supports an internationally important assemblage of waterfowl. • Criterion 6 as it supports internationally important numbers of pint-footed goose, Bewick's swan, Eurasian wigeon, and northern pintail
	Malham Tarn[122]	The site qualifies under: • Criterion 1 of the Ramsar convention as it contains the highest marl lake in Britain, along with acidophilous bog, calcareous fen and soligenous mire. • Criterion 2 as it supports nationally rare alpine bartisia *Bartsia alpina* and narrow small reed *Calamagrostis stricta* and seven nationally scarce species. It also supports five listed British Red Data Book Invertebrates including the caddis fly *Agrypnia crassicornis.*
	Mersey Narrows & North Wirral Foreshore[123]	The site qualifies under: • Criterion 4 of the Ramsar convention as it regularly supports plant and/or animal species at a critical stage in their life cycle, or provide refuge during adverse conditions. • Criterion 5 as it regularly supports 20,000 or more waterbirds. • Criterion 6 as it regularly supports 1% of the individuals in the populations of knot and bar-tailed godwits.
	Holburn Lake & Moss	The site qualifies under:

[119] https://rsis.ramsar.org/RISapp/files/RISrep/GB325RIS.pdf

[120] https://jncc.gov.uk/jncc-assets/RIS/UK11035.pdf

[121] https://jncc.gov.uk/jncc-assets/RIS/UK11039.pdf

[122] https://jncc.gov.uk/jncc-assets/RIS/UK11038.pdf

[123] https://rsis.ramsar.org/RISapp/files/RISrep/GB2202RIS.pdf

European Site Designation	Site Name	Qualifying Feature
		• Criterion 1 of the Ramsar convention as it is a nationally rare example of a lowland raised mire. • Criterion 3 the site is an important winter roost site for Icelandic greylag geese population. • Criterion 4 as it is regularly visited by flocks of mallard, Eurasian wigeon, and teal. Pairs of shelduck, shoveler, and tufted duck *Aythya fuligula* regularly breed here. • Criterion 6 as it supports internationally important numbers of greylag geese.
	Lindisfarne[124]	The site qualifies under: • Criterion 1 of the Ramsar convention as it contains extensive intertidal mud flats, with saltmarsh, and major sand dune systems with well-developed dune slacks. • Criterion 5 as it supports internationally important assemblage of waterfowl. • Criterion 6 as it supports internationally important numbers of light-bellied brent goose, Eurasian wigeon, ringed plover, redshank, greylag gees, and bar-tailed godwit.
	Teesmouth & Cleveland Coast[125]	The site qualifies under: • Criterion 5 of the Ramsar convention as it supports an internationally importance assemblage of waterfowl. • Criterion 6 as it supports internationally important numbers of redshank and red knot.
	Northumbria Coast[126]	The site qualifies under: • Criterion 6 of the Ramsar convention as it supports internationally important population of little tern, purple sandpiper, and turnstone.
	Din Moss-Hoselaw Loch[127]	The site qualifies under: • Criterion 6 of the Ramsar convention as it supports internationally important populations of Pink-footed goose and greylag goose.

A.1.2 European Sites Conservation Objectives

[124] https://jncc.gov.uk/jncc-assets/RIS/UK11036.pdf

[125] https://jncc.gov.uk/jncc-assets/RIS/UK11068.pdf

[126] https://jncc.gov.uk/jncc-assets/RIS/UK11049.pdf

[127] https://jncc.gov.uk/jncc-assets/RIS/UK13010.pdf

Table A1.2: SAC and SPA Conservation Objectives

European Site Designation	Site Name	Conservation Objectives
SAC	Arnecliff & Park Hole Woods	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: – 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.
	Asby Complex	
	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	
	River Dee and Bala Lake	
	River Derwent	
	River Derwent & Bassenthwaite Lake	
	River Eden	
	River Kent	
	Roman Wall Loughs	
	Sefton Coast	
	Beast Cliff-Whitby (Robin Hood's Bay)	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: – 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.
	Bolton Fell Moss	
	Borrowdale Woodland Complex	
	Calf Hill & Cragg Woods	
	Castle Eden Dene	
	Harbottle Moors	
	Ford Moss	
	Ox Close	
	Roundsea Wood & Mosses	

European Site Designation	Site Name	Conservation Objectives
	Simonside Hills	
	Skipwith Common	
	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 Midland Mosses	
	Witherslack Mosses	
	Yewbarrow Woods	
	Border Mires, Kielder-Butterburn	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: – 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	

European Site Designation	Site Name	Conservation Objectives
	North Pennine Dales Meadows	
	North York Moors	
	Oak Mere	
	Clints Quarry	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: – 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	
	River Ehen	
	Rixton Clay Pits	
	Rochdale Canal	
	Lake District High Fells	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: – 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	
	Solway Firth	
SPA	Bowland Fells	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; – 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 and Filey Coast	
	Holburn Lake & Moss	
	Hornsea Mere	
	Humber Estuary	
	Leighton Moss	
	Lindisfarne	
	Liverpool Bay	
	Lower Derwent Valley	
	Martin Mere	

European Site Designation	Site Name	Conservation Objectives
	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	
	Solway Firth	
	South Pennine Moors Phase 2	
	Teesmouth & Cleveland Coast	
	The Dee Estuary	
	Thorne & Hatfield Moors	
	Din Moss-Hoselaw Loch	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: – 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 HRA Assessment Results

The first step in the HRA assessment is to determine whether the plan is exempt from assessment. For a plan to be exempt from assessment the whole of the plan must be exclusively directly connected with or necessary to the management of the European site(s) potentially affected. The following four criterion must be affirmative:

1. The document is directly connected with, or exclusively concerned with the essential conservation management of, one or more qualifying features of one or more European site in order to meet the site's conservation objectives to sustain or restore favourable conservation status of the qualifying features it addresses, and is not merely broadly compatible with the conservation objectives.
2. There are no adverse effects on any qualifying features of any other European site.
3. There is no other purpose that the document seeks to achieve that could have any conceivable effect on any qualifying feature of any other European site(s).
4. This confirmation has been made on a case-specific basis and a general or systematic exemption has not been relied on.

The Plan fails the first criteria as it is not directly connected with the conservation management of European sites. The next stage is to determine whether the plan can be excluded from assessment. Plans which are not explicitly identified in the Habitats Regulations will need to be assessed and critically whether it or any part of it would be likely to have a significant effect on a European site. It is not possible to rule out potential for LSE and therefore it also cannot be eliminated from further assessment.

Consequently, an assessment of each Plan strategic ambition, strategic development corridor and TfN policy action in relation to impacts on European designated sites was undertaken. Each strategic ambition, strategic development corridor and TfN policy action was pre-screened and categorised in line with pre-screening categories (Table A2.1) within DTA Publications Ltd. (2022).[128] The purpose of the categories is to provide a list which can be cross referenced in the 'assessment and reasoning'.

Table A2.2 and Table A2.3 detail the results of the screening assessed against these categories.

Table A2.1: Pre-screening categories (DTA Publications Ltd, 2022).[128]

Category	Description	Screening Category
A	General statement of policy/general aspiration.	Screened out
B	Policy listing general criteria for testing the acceptability/sustainability of proposals.	
C	Proposal referred to but not proposed by the plan.	
D	General plan-wide environmental protection/site safeguarding/threshold policies.	
E	Policies or proposals which steer change in such a way as to protect European sites from adverse effects.	
F	Policy that cannot lead to development or other change.	

[128] DTA Publications: The Habitats Regulations Assessment Handbook. Available by subscription at: www.dtapublications.co.uk (Accessed December 2022)

Category	Description	Screening Category
G	Policy or proposal that could not have any conceivable effect on a site.	
H	Policy or proposal the (actual or theoretical) effects of which cannot undermine the conservation objectives (either alone or in combination with other aspects of this or other plans or projects).	
I	Policy or proposal which may have a likely significant effect on a site alone.	Screened in
J	Policy or proposal with an effect on a site but unlikely to be significant alone, so need to check for LSE in combination.	
K	Policy or proposal unlikely to have a significant effect either alone or in-combination.	Screened out after the in-combination test
L	Policy or proposal which might be likely to have a significant effect in combination.	Screened in after the in-combination test
M	Bespoke area, site or case-specific policies or proposals intended to avoid or reduce harmful effects on a European site.	Screened in

Table A2.2: HRA Stage 1 Screening findings for strategic ambitions.

Strategic ambitions		
Strategic ambition	**Will the broad interventions lead to likely significant effects on the European sites?**	**Assessment and reasoning**
Transform Economic Performance Medium term pan-Northern target (2030): - Begin to close the productivity gap between the North and the average for the rest of England excluding London. - 68% of the North's population can access an employment centre with at least 5,000 jobs by public transport within 30 minutes by 2030. - Improve overall journey time reliability compared to 2019 levels; primarily achieved through a strong emphasis on encouraging modal shift to public transport, rail and active travel. Long term pan-Northern target (2050): - Close the productivity gap between the North and the average for the rest of England excluding London, by 2050. - 37% of the North's population can access 500,000 jobs by rail within 60 minutes by 2050; - 75% of the North's population can access an employment centre with at least 5,000 jobs by public transport within 30 minutes by 2050; - Reduce the proportion of the Major Road Network experiencing excessively unreliable journey times during the weekday peak to 2050. - Reduce the proportion of the Major Road Network experiencing excessively unreliable journey times during the weekend to 2050.	No	Category A The strategic ambition is a general aspiration and does not outline any development proposals, their design, precise location, or timeframes for construction. In addition, it is too general to be able to identify effects on particular European sites. The Plan seeks to protect European sites. This includes any potential direct or indirect impacts on these sites which may arise from new or upgraded transport interventions which will be appropriately assessed, mitigated and/or compensated for, in line with existing best practice and relevant legislation over the lifetime of the Plan. Therefore, should any infrastructure proposal arise, the need for a HRA will be identified and undertaken at the project design and consultation stage.
Rapid Decarbonisation of Surface Transport Medium term pan-Northern target (2030): - 56% reduction, to 11 million tonnes by 2030. - Share of trips made by sustainable modes increases to 43% by 2030 (rail to 2%, bus to 8%, active modes to 33%). - Zero overall regional increase in private car vehicle and taxi mileage to 2030. - Overall increase in rail fresight mode share.	No	Category A The strategic ambition is a general aspiration and does not outline any development proposals, their design, precise location, or timeframes for construction. In addition, it is too general to be able to identify effects on particular European sites. The Plan seeks to protect European sites. This includes any potential direct or indirect impacts on these sites which may arise from new or upgraded transport interventions which will be appropriately assessed, mitigated and/or

Strategic ambitions		
Strategic ambition	**Will the broad interventions lead to likely significant effects on the European sites?**	**Assessment and reasoning**
- Uptake of public EV charging points at scale and pace across the North to support TfN's regional decarbonisation trajectory to 2045, increasing to at least 123,500 by 2030. - All new major transport infrastructure development to aid local nature recovery by achieving 10% biodiversity net gain, for projects gaining approval from 2025 (in line with the Environment Act 2021). Long term pan-Northern target (2050): - Reduce total northern surface transport CO2 emissions to near zero by 2045. - Share of trips made by sustainble modes increases to 51% by 2050 (rail to 3%, bus to 12% active modes to 36%). - Zero overall regional increase in private car vehicle mileage on the North's road network to 2045 compared to 2018. - Treble rail's share of freight carried to 25.5% by 2050, measured as tonne km. - Uptake of public EV charging points at scale and pace across the North to support TfN's regional decarbonisation trajectory to 2045, increasing to at least 141,000 by 2050. - All new major transport infrastructure development to aid local nature recovery by achieving 10% biodiversity net gain, for projects gaining approval from 2025 (in line with the Environment Act 2021). -		compensated for, in line with existing best practice and relevant legislation over the lifetime of the Plan. Therefore, should any infrastructure proposal arise, the need for a HRA will be identified and undertaken at the project design and consultation stage.
Enhancing Social Inclusion and Health Medium term pan-Northern target (2030): - Public Performance Measure (PPM) of at least 91.2% for both Transpennine Express and Northern by 2028, returning to levels last seen prior to 2018. - Reduce the number of people in the North living in areas with a 'high' risk of TRSE by 200,000 by 2030. - Reduce the number of people in the North living in areas with a 'highest' risk of TRSE by 74,000 by 2030. - Local and national road investment continues to deliver road safety improvements, including the the Safer Roads Fund, and supported by targets such as National Highways target reduction of at least 50% by the end of 2025 against the 2005-09 average baseline.	No	Category A The strategic ambition is a general aspiration and does not outline any development proposals, their design, precise location, or timeframes for construction. In addition, it is too general to be able to identify effects on particular European sites. The Plan seeks to protect European sites. This includes any potential direct or indirect impacts on these sites which may arise from new or upgraded transport interventions which will be appropriately assessed, mitigated and/or compensated for, in line with existing best practice and relevant legislation over the lifetime of the Plan. Therefore, should any infrastructure proposal arise, the

Strategic ambitions		
Strategic ambition	**Will the broad interventions lead to likely significant effects on the European sites?**	**Assessment and reasoning**
- Physical station improvements continue to be delivered as part of Network Rail's Access for All programme. By 2030, there is a plan in place to deliver the step change in physical station accessibility the North needs to meet 2050 targets. - Reduction in AQMAs in the North through improved air pollution levels. - Reduction in Nitrogen Dioxide exposure across the major road network in the North. Long term pan-Northern target (2050): - Reduce the number of people in the North living in areas with a 'high' risk of TRSE by 1,000,000 by 2050. - Reduce the number of people in the North living in areas with a 'highest' risk of TRSE by 370,000 by 2050. - Vision zero: reduce the number of people killed and seriously injured in traffic incidents to zero by 2050. - All rail stations in the North to meet TfN's desired accessibility standards by 2050. - Eliminate the need for Air Quality Management Areas in the North announced due to NO2 or PM10 to zero by 2045 by bringing air quality within legal limits. - Reduce to zero the proportion of the North's major road network by length that exceed WHO nitrogen dioxide exposure limits by 2045.		need for a HRA will be identified and undertaken at the project design and consultation stage.

Table A2.3: HRA Stage 1 Screening findings for Strategic Development Corridors.

Strategic Development Corridors	Will the broad interventions lead to likely significant effects on the European sites?	Assessment and reasoning
Strategic Development Corridors	Yes	Category I The Strategic Development Corridors do not outline any development proposals, their design, precise location, or timeframes for construction. The Strategic Development Corridors represent an area where evidence identifies investment in transport infrastructure will unlock and enable transformational economic growth – interlinking Local Transport Plans with regional, national and international connectivity. The Strategic Development Corridors are individually designed to meet the needs of business from a regional perspective. They present multimodal economic ecosystems that with major multimodal transport investment, are best placed to deliver transformational growth, according to TfN evidence base. This approach means TfN and partners can maximise the benefits of any significant new strategic infrastructure investment, ensuring that the pipeline of transport interventions aligns with national policy, and local transport and spatial plans including housing. The next stage of work will involve focusing on aligning investment using these corridors. Taking a precautionary approach, it is not possible to rule out these policies from resulting in a likely significant effect on European sites in proximity to these geographic corridors. Pathways for effect may include the following: - construction of new transport infrastructure directly within or in proximity to European Sites; - hydrological changes; - air quality; - noise; - lighting; - additional recreational pressure.

Table A2.4: HRA Stage 1 Screening findings for the TfN Policy Actions.

Mode of Transport	TfN Policy Action	Will the policy action lead to likely significant effects on the European sites?	Assessment and reasoning	Potential effects
Rail	TfN will work with industry and DfT to secure a common set of service development proposals against which a pipeline of infrastructure investment can be more coherently developed to ensure an effective and joined-up approach across these schemes and programmes.	No	Category F This policy looks to deliver proposals and form a strategic approach to delivery.	N/A
Rail	Actively work with partners to bring all stations in the North up to minimum suggested standards as quickly as possible and meeting desirable standards by 2050.	Yes	Category I This policy may lead to construction of new infrastructure in order to upgrade stations to suggested standards.	At this stage, taking a precautionary approach, it is not possible to rule out these policies from resulting in a likely significant effect on European sites. Pathways for effect may include the following: - construction of new transport infrastructure in directly within or within proximity to European Sites; - hydrological changes; - air quality; - noise; - lighting; - additional recreational pressure.
Rail	Use the Rail North Partnership to rebuild the confidence of rail passengers in the Norths rail services, promote further strong growth in patronage and ensure the next generation of passenger service contracts can meet the	No	Category F This policy will not lead to development and is related to qualitative criteria for future development	N/A

Mode of Transport	TfN Policy Action	Will the policy action lead to likely significant effects on the European sites?	Assessment and reasoning	Potential effects
	needs of the Norths communities and businesses.			
Roads	Work with National Highways to future proof and decarbonise the strategic and major road networks for new technologies (i.e., EV, Hydrogen and Digital communications) and maximise opportunities for freight and improved infrastructure for public transport and active travel.	No	Category B This policy focuses on the sustainability and decarbonisation of major roads. This is a generally policy that looks to test proposals in the Plan and therefore cannot have any effect on a European site.	N/A
Freight and Logistics	Utilise our Northern Freight Growth forecast to collaborate with delivery partners to ensure that our MRN, rail network, ports and airports provide the required capacity and capability to support existing and future freight demand, as set out in our Freight and Logistics Strategy.	Yes	Category I This policy will ensure the capacity of multi-modal transport supports freight demand. This may include the requirement to upgrade existing infrastructure or construction of new infrastructure.	At this stage, taking a precautionary approach, it is not possible to rule out this policy from resulting in a likely significant effect on European sites. Pathways for effect may include the following: - construction of new transport infrastructure in directly within or within proximity to European Sites; - hydrological changes; - air quality; - noise; - lighting; - additional recreational pressure.
Local Connectivity	Utilise our extensive pan-Northern evidence base to provide localised evidence to Partners to support the planning and delivery of local transport plans that improve social outcomes, inclusion, equality, and decarbonisation.	No	Category B This policy will look to inform the planned delivery of social and sustainable travel utilising existing evidence as a base. This is a generally policy that looks to test proposals in the Plan and therefore cannot have any effect on a European site.	N/A

Mode of Transport	TfN Policy Action	Will the policy action lead to likely significant effects on the European sites?	Assessment and reasoning	Potential effects
	Proactively work with Active Travel England, DfT and Local Authority Partners to secure investment to enhance the provision, accessibility, and safety of active modes to deliver modal shift.	No	Category F This policy looks at securing investment which will be utilised to deliver modal shift of active travel. The policy will not itself lead to development.	N/A