

Appendix 10H: Habitats Regulations Assessment (HRA) Matrices Signposting

Eggborough CCGT

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Matrices Signposting

Eggborough Power Limited

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Quality information

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1. Introduction

This Appendix of the Environmental Statement (ES) represents a 'Habitats Regulations Assessment Signposting Document' for the Proposed Development. The terms of reference used in this report are consistent with those defined within the main chapters of the ES (Volume I). References are included, under relevant subject headings, to those chapters, technical appendices and/ or paragraphs within the ES that contain the information required by the competent authority to undertake an "appropriate assessment" under the terms of Regulation 61 of the Conservation of Habitats and Species Regulations 2010 (commonly referred to as the 'Habitats Regulations'). It is designed to serve two key functions:

- to assist the competent authority by making it easier to undertake and consult on a Habitats Regulations Assessment; and
- to act as a confirmatory checklist that can be used to ensure that the relevant information needed for a Habitats Regulations Assessment is adequately presented within this ES.

In addition to the signposting provided in the main body of this document, the matrices provided by the Planning Inspectorate (PINS) in guidance document '*Advice Note 10 – Appendix 1: Template for Screening Matrices*' have been completed and are provided as Annex G. These matrices provide a summary view of the topics considered in the ES and the outcome of the screening for likely significant effects, against the qualifying features of the designated sites.

1.1 Rationale for Scoping

For statutory designated nature conservation sites subject to the provisions of the Habitats Regulations, it is usual to consider a search radius of 10 km when examining the potential pathways for air quality impacts on the sites. There are no such statutory designated sites within a 10 km radius of the Proposed Power Plant Site; however, North Yorkshire County Council (NYCC) in its consultation response has indicated that they wish to see a precautionary approach undertaken in respect of the assessment of emissions to air (in particular atmospheric nitrogen deposition) from the Proposed Development. A description of the Proposed Development is provided in Chapter 4: The Proposed Development of the ES Volume I.

A total of six Special Areas of Conservation (SAC) with qualifying Annex I habitats that are potentially susceptible to the effects of emissions to air from the Proposed Development have therefore been scoped into this signposting document, as identified by NYCC. In addition, potential surface water pathways to the Humber Estuary have also been considered due to the cooling water abstraction location on the River Aire (which ultimately outfalls to the Estuary). The purpose of this signposting document is to assist the competent authority in discharging their obligations under the Habitats Regulations when considering the planning application submitted to the Secretary of State for a Development Consent Order (DCO). The following sites were scoped into the ES (see Figure 10H.1):

- Skipwith Common SAC – 10.5 km north-east of the Site;
- Thorne Moor SAC – 14 km south-east of the Site;
- Hatfield Moor SAC – 19 km south-east of the Site;
- Humber Estuary SPA/ SAC/ Ramsar – 15 km east of the Site;
- Strensall Common SAC – approximately 35 km north of the Site; and
- North York Moors SAC – 60 km north of the Site.

It is a requirement of the EC Habitats Directive 1992 and the Habitats Regulations (Box 1.1) that plans and projects are subject to an 'Appropriate Assessment' if it is likely that they will lead to significant adverse effects on a Natura 2000 site (the collective name for European designated sites). It is the duty of the 'competent authority' to determine if significant adverse effects are likely and, if necessary, to then undertake the Appropriate Assessment, but the proponent of the scheme can be asked to supply sufficient data/ reports to enable such a decision to be reached.

In the past, the term ‘Appropriate Assessment’ has been used to describe both the overall process and a particular stage of that process (see below). The term Habitats Regulations Assessment (HRA) has come into use in order to refer to the process that leads to an “Appropriate Assessment”, thus avoiding confusion. Throughout this report, HRA is used to refer to the overall procedure required by the Conservation of Habitats and Species Regulations 2010 (as amended) (the ‘Habitats Regulations’). The Habitats Regulations set out a stepwise process, including an ‘Appropriate Assessment’ to consider the impacts and effects of the Proposed Development on the Natura 2000 site. Although the necessity for an Appropriate Assessment has not been established, this document has been prepared on the assumption that the competent authority will conclude that one is not required.

Box 1.1: The legislative basis for determining Likely Significant Effect and for subsequent Appropriate Assessment, if required

Habitats Directive 1992

“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives.”

Article 6 (3)

Conservation of Habitats and Species Regulations 2010

“A competent authority, before deciding to ... give any consent for a plan or project which is likely to have a significant effect on a European site or a European Offshore Marine Site (either alone or in combination with other plans or projects) ... must make an appropriate assessment of the implications for the site in view of that site’s conservation objectives ... The authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site ...”

Regulation 21

1.2 Overview of HRA Procedure and Context

Office of Deputy Prime Minister (ODPM) Circular 06/2005 (Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System) provides guidance on how the Regulations should be implemented. This is interpreted and summarised as follows:

- determination of whether the proposal is likely to have a significant effect, either alone or cumulatively (referred to as ‘in-combination’ in HRA terms) with other plans or projects, on a European site;
- if a significant effect is likely, the competent authority must conduct an Appropriate Assessment of the implications for the site in view of the site’s conservation objectives (Natural England, 2008);
- in considering the project’s effects on the site’s conservation objectives, the competent authority must determine whether it can ascertain that the proposal will not adversely affect the integrity of the site;
- taking account of the way in which works are proposed to be carried-out, and the site conditions or other restrictions;
- being satisfied that there are no alternative solutions which would have a lesser effect on site integrity;
- considering whether there are Imperative Reasons of Overriding Public Interest (IROPI) to justify granting of permission for the development despite a potentially negative effect on site integrity; and
- in the absence of alternatives, and where the importance of the development outweighs the harm to a European site, consideration of proposed compensatory measures (to ensure that the overall coherence of the network of Natura 2000 sites is protected).

A flow chart of the HRA process (showing the decisions that are required at each stage) is provided as Plate 1.1 (below). A four-stage methodology for HRA would therefore include:

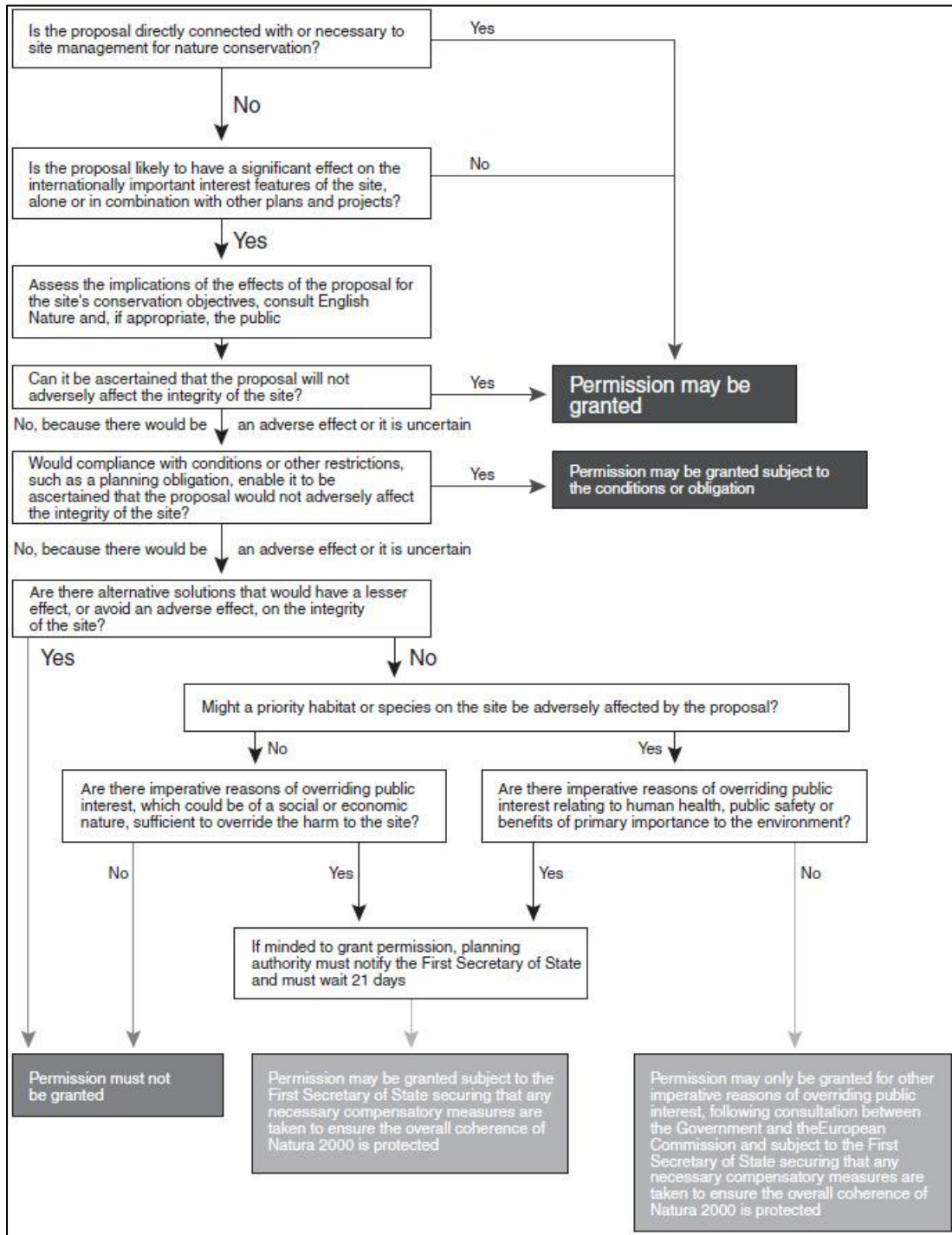
- HRA Stage 1: Screening (including a 'likely significant effect' judgement);
- HRA Stage 2: Appropriate Assessment;
- HRA Stage 3: Assessment of Alternative Solutions; and
- HRA Stage 4: Assessment where no alternative solutions exist and where adverse effects remain.

Whilst the Appropriate Assessment and any subsequent assessments are undertaken by a competent authority, the information needed to undertake the assessments is generally provided by the applicant. For the Proposed Development the necessary information is presented within Chapters 8: Air Quality and 10: Ecology and Nature Conservation of ES Volume I. Information on the Proposed Development is presented in Chapter 4: The Proposed Development in ES Volume I.

ES Volume I (Chapters 8: Air Quality and 10: Ecology and Nature Conservation) concludes that the Proposed Development will not result in any significant adverse effects on the statutory designated sites identified in Section 1.1 above. It should be appreciated that the mechanism for Environmental Impact Assessment (EIA) used in the ES (including how terminology is used, and how the importance of receptors is evaluated) differs from that adopted for HRA. Consequently, whilst it is considered that all the information necessary to undertake an HRA is contained within the main chapters of the ES (Volume I), a separate process is still required to address the specific obligations of the Habitats Regulations. This is the role that this document seeks to bridge by assisting the competent authority in directing them to the necessary topics within the ES Volume I chapters.

One primary difference between EIA and HRA relates to the context of the assessments. HRA is specifically designed to consider the effects of a plan of project on the integrity of a Natura 2000 site, including its designated features (regardless of whether or not they are geographically located within the site at the time). It considers the whole of the Natura 2000 site in some detail, and by definition focuses on a site acknowledged to be of international importance. EIA, on the other hand, adopts a different perspective. It considers the impacts resulting from a development, and whether they have the potential to affect different receptors. The significance of the effect on any receptor is measured by combining the magnitude of the impact, and the importance and sensitivity of the receptor itself. EIA therefore seeks to establish the level at which significant effects occur, which may include Natura 2000 receptors at less than an international (possibly just at a local) level. All readers should be aware of this distinction when applying this signposting document.

Plate 1.1: Consideration of development proposals affecting Internationally Designated Nature Conservation Sites (ODPM, 2005)



2. Baseline Evidence Gathering

2.1 Proposed Development Description and Alternatives

A detailed description of the Proposed Development is provided in Chapters 3: Description of the Site and 4: The Proposed Development, in ES Volume I.

Consideration of the different alternatives to the Proposed Development is provided in Chapter 6: Need, Alternatives and Design Evolution in ES Volume I.

2.2 The Need for the Proposed Development

A comprehensive description of the project's rationale is presented in Chapter 6: Need, Alternatives and Design Evolution in ES Volume I.

2.3 Consultation with Natural England and/ or General Public

Regulation 61(3) & (4) of the Habitats Regulations refer to the need for, and option of, consultation with Natural England and the public respectively. At the scoping stage, Natural England was consulted on the proposed scope of the ecological impact assessment.

A summary of the comments received from Natural England in respect of the potential for adverse effects on statutory designated sites is provided in Table 10.4 in Chapter 10: Ecology and Nature Conservation of the ES (Volume I).

2.4 Designated Sites Scoped in to HRA Screening

As discussed in Section 1.1 of this signposting document, following comments received from NYCC to the EIA Scoping Report, seven statutory designated Natura 2000 sites and one Ramsar site have been scoped into the assessment. It is a matter of UK Government policy to afford Ramsar sites the same protection as Natura 2000 sites through the Habitats Regulations. Although all eight sites are in excess of 10 km from the Site (10 km being the typically accepted zone of influence in which potential pathways for impacts are considered), NYCC had concerns regarding Atmospheric Nitrogen Deposition (AND) from combustion plants, and considered that the 10 km radius was unduly conservative when considering potential effects on habitats susceptible to the effects of AND.

Three of the Natura 2000 sites identified by NYCC support habitats that are vulnerable to the effects of AND and lie downwind (based on the prevailing wind direction) of the Proposed Power Plant Site.

The Proposed Development also has the potential to indirectly affect the Humber Estuary SPA/ SAC/ Ramsar via the River Aire, which flows into the Humber Estuary, on which there will be a cooling water intake/ outfall for the Proposed Development.

A summary of the qualifying features for each of the eight Natura 2000 sites and their distance from the Site is summarised in Table 2.1 below.

Table 2.1: Natura 2000 Sites Scoped into HRA Screening

Site	Approx. Distance from Site	Total Area (ha)	Summary of Primary Reasons for Site Selection	Summary of Qualifying Features
Skipwith Common SAC	10.5 km NE	294.6	Northern Atlantic wet heaths with <i>Erica tetralix</i> European dry heaths	None
Thorne Moor SAC	14 km SE	1,191.02	Degraded raised bogs still capable of natural regeneration	None
Hatfield Moor SAC	19 km SE	1,359.02	Degraded raised bogs still capable of natural regeneration	None
Humber Estuary SAC	15 km E	36,657.15	Estuaries Mudflats and sandflats not	Sandbanks which are slightly covered by sea water all the

Site	Approx. Distance from Site	Total Area (ha)	Summary of Primary Reasons for Site Selection	Summary of Qualifying Features
			covered by seawater at low tide	time Coastal lagoons Salicornia and other annuals colonizing mud and sand Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) Embryonic shifting dunes Shifting dunes along the shoreline with European marram grass (<i>Ammophila arenaria</i>) (white dunes) Fixed coastal dunes with herbaceous vegetation (grey dunes) Dunes with common sea buckthorn (<i>Hippophae rhamnoides</i>) River lamprey (<i>Lampetra fluviatilis</i>) Sea lamprey (<i>Petromyzon marnius</i>) Grey seal (<i>Halichoerus grypus</i>)
Humber Estuary SPA	15 km E	37,630.24	Populations of European importance of Annex I and Annex II over-wintering wildfowl and wading birds. Internationally important assemblage of migratory and wintering birds.	N/A
Humber Estuary Ramsar	15 km E	37,987.8	Estuarine habitats including dune systems, intertidal mud and sand flats, saltmarshes and brackish lagoons. Grey seal Internationally important populations of passage wildfowl and waders.	N/A
Strensall Common SAC	35 km E	572	Northern Atlantic wet heaths with <i>Erica tetralix</i> European dry heaths	None
North York Moors SAC	60 km N	44,053.29	Northern Atlantic wet heaths with <i>Erica tetralix</i> European dry heaths	Blanket bogs

2.5 Conservation Objectives

The conservation objectives for each relevant Natura 2000 site are summarised in Table 2.2 below.

Table 2.2: Conservation Objectives for Relevant Natura 2000 Sites

Site	Conservation Objectives
Skipwith Common SAC	<p>Ensure that the integrity of the qualifying natural habitat 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;</p> <ul style="list-style-type: none"> the extent and distribution of the qualifying natural habitat; the structure and function (including typical species) of the qualifying natural habitat; and the supporting processes on which the qualifying natural habitat rely
Thorne Moor SAC	<p>Ensure that the integrity of the qualifying natural habitat 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;</p> <ul style="list-style-type: none"> the extent and distribution of the qualifying natural habitat; the structure and function (including typical species) of the qualifying natural habitat, and the supporting processes on which the qualifying natural habitat rely
Hatfield Moor SAC	<p>Ensure that the integrity of the qualifying natural habitat 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;</p> <ul style="list-style-type: none"> the extent and distribution of the qualifying natural habitat; the structure and function (including typical species) of the qualifying natural habitat, and the supporting processes on which the qualifying natural habitat rely
Humber Estuary SAC	<p>Ensure that the integrity of the qualifying natural habitat 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;</p> <ul style="list-style-type: none"> the extent and distribution of qualifying natural habitats and habitats of qualifying species; the structure and function (including typical species) of the qualifying natural habitats; the structure and function of the habitats of qualifying species; the supporting processes on which qualifying natural habitats and habitats of qualifying species rely; the populations of qualifying species, and the distribution of qualifying species within the site.
Humber Estuary SPA	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;</p> <ul style="list-style-type: none"> the extent and distribution of the habitats of the qualifying features the structure and function of the qualifying features the supporting processes on which the habitats of the qualifying features rely the populations of each of the qualifying features, and the distribution of the qualifying features within the site
Humber Estuary Ramsar	Not specifically listed. Assumed as for Humber Estuary SAC and SPA.
Strensall Common SAC	<p>Ensure that the integrity of the qualifying natural habitat 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;</p> <ul style="list-style-type: none"> the extent and distribution of the qualifying natural habitat; the structure and function (including typical species) of the qualifying natural habitat, and

Site	Conservation Objectives
North York Moors SAC	<ul style="list-style-type: none">the supporting processes on which the qualifying natural habitat rely <p>Ensure that the integrity of the qualifying natural habitat 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;</p> <ul style="list-style-type: none">the extent and distribution of the qualifying natural habitat;the structure and function (including typical species) of the qualifying natural habitat, andthe supporting processes on which the qualifying natural habitat rely

3. Potential Impacts on Natura 2000 Sites

3.1 Identification of Potential Impacts

The potential source-receptor pathways by which the Proposed Development could impact the qualifying features of each Natura 2000 site, and which were scoped into the ecological impact assessment are as follows:

- surface water quality – potential pathways for the surface water pollution to the River Aire, and ultimately to the Humber Estuary SAC/ SPA/ Ramsar into which the river flows during the construction phase of the cooling water intake e.g. sedimentation, vehicle fuel spill; and
- air quality - potential pathways identified through emissions to air during the operational phase of Proposed Development resulting in nitrogen and acid deposition to susceptible habitats within the North York Moors SAC, Strensall Common SAC, Skipwith Common SAC, Thorne Moor SAC and Hatfield Moor SAC¹.

No pathways by which underwater noise could give rise to likely significant effects on marine mammals and fish that are part of the Humber Estuary SPA/ SAC/ Ramsar/ SSSI have been identified given that any works associated with the Proposed Development will be 25 km from the nearest part of the designated site. Over this distance it is reasonable to conclude that there would be no propagation of underwater noise such that the qualifying features could be affected. This pathway is therefore scoped out.

No pathways by which emissions to air could give rise to likely significant effects on the Humber Estuary SPA/ SAC/ Ramsar have been identified because no habitats susceptible to nitrogen or acid deposition are present. This pathway is therefore scoped out.

Given the distance between the Natura 2000 sites and the Proposed Development there is no pathway that could result in direct habitat loss or direct physical damage to any of the designated habitats. Similarly, there are no groundwater pathways over this distance through which the Proposed Development could give rise to any effects on the groundwater dependent terrestrial ecosystems (GWTEs) of the Natura 2000 sites. These pathways are therefore scoped out.

No pathways by which decommissioning impacts could give rise to likely significant effects on the Humber Estuary SPA/ SAC/ Ramsar have been identified because below-ground infrastructure, which includes the gas connection pipeline, cooling water abstraction pipeline and the intake and outfall structures on the River Aire, will remain *in-situ*. This pathway is therefore scoped out.

3.2 Summary of HRA Signposting

Table 3.1 below presents the signposting to the relevant ES Volume I chapters in which detailed assessment of the relevant potential source-receptor pathways identified in Section 3.1 can be found. The main source-receptor pathway identified was in respect of operational emissions to air from the new stacks. Chapter 8: Air Quality has assessed a range of scenarios for acid and nitrogen deposition based on the 'Rochdale Envelope' approach, which takes into account the various options being considered for the type and final layout of the Proposed Power Plant.

For all potential source-receptor pathways identified, the ecological impact assessment reported in ES Volume I concluded that the Proposed Development will not result in any significant effects on designated sites. When considered in HRA terms, the technical assessments undertaken are considered to present sufficient evidence for a conclusion of no likely significant effect on any Natura 2000 site.

¹ Of these sites only Skipwith Common SAC and Thorne Moor SAC have been subject to detailed air quality modelling in Chapter 8, which scoped in designated sites within a 15 km radius from the Proposed Development. However, for both SACs the predicted effects were assessed as negligible and therefore it is reasonable to assume that this assessment conclusion is similarly applicable to designated sites beyond a 15 km radius from the Proposed Development.

Table 3.1: HRA Signposting for Relevant Natura 2000 Sites

Qualifying Feature	Potential Impact	Potential Pathway for Effects	Summary of Evidence Presented in ES	ES Volume I Reference	Likely Significant Effect Predicted?
Skipwith Common SAC					
Northern Atlantic wet heaths with <i>Erica tetralix</i> European dry heaths Changes in air quality during operational phase		NOx deposition from Proposed Power Plant stacks resulting in changes to critical levels and potential effects on vegetation assemblage.	Change is imperceptible; <1% of critical level and is not significant.	Chapter 8:Air Quality Paragraphs 8.6.27 – 8.6.31 Appendix 8A: Air Quality Assessment Table 8A.11	No
		Nutrient nitrogen deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage	Change is imperceptible; <1% of critical load and is not significant.	Chapter 8:Air Quality Paragraphs 8.6.27 – 8.6.31 Appendix 8A: Air Quality Assessment Table 8A.12	No
		Acid deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage	Change is imperceptible; <1% of critical load and is not significant.	Chapter 8:Air Quality Paragraphs 8.6.27 – 8.6.31 Appendix 8A: Air Quality Assessment Table 8A.13	No
Thorne Moor SAC					
Degraded raised bogs still capable of natural regeneration	Changes in air quality during operational phase	NOx deposition from Proposed Power Plant stacks resulting in changes to critical levels and potential effects on vegetation assemblage.	Change is imperceptible; <1% of critical level and is not significant.	Chapter 8:Air Quality Paragraphs 8.6.27 – 8.6.31 Appendix 8A: Air Quality Assessment Table 8A.11	No
		Nutrient nitrogen deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage	Change is imperceptible; <1% of critical load and is not significant.	Chapter 8:Air Quality Paragraphs 8.6.27 – 8.6.31 Appendix 8A: Air Quality Assessment Table 8A.12	No
		Acid deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation	Change is imperceptible; <1% of critical load and is not significant.	Chapter 8:Air Quality Paragraphs 8.6.27 – 8.6.31	No

Qualifying Feature	Potential Impact	Potential Pathway for Effects	Summary of Evidence Presented in ES	ES Volume Reference	Likely Significant Effect Predicted?
		assemblage		Appendix 8A: Air Quality Assessment Table 8A.13	
Hatfield Moor SAC					
Degraded raised bogs still capable of natural regeneration	Changes in air quality during operational phase	NOx deposition from Proposed Power Plant stacks resulting in changes to critical levels and potential effects on vegetation assemblage.	Change is assumed as imperceptible; <1% of critical level and is not significant. SAC is in excess of 15 km from the Proposed Development boundary and has therefore not been scoped into the Air Quality Assessment, but for all sites within 15 km, change is <1% of critical level and is not significant.	Chapter 8:Air Quality Paragraphs 8.6.27 – 8.6.31	No
		Nutrient nitrogen deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage	Change is assumed as imperceptible; <1% of critical load and is not significant. SAC is in excess of 15 km from the Proposed Development boundary and has therefore not been scoped into the Air Quality Assessment, but for all sites within 15 km, change is <1% of critical load and is not significant.	Chapter 8:Air Quality Paragraphs 8.6.27 – 8.6.31	No
		Acid deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage	Change is assumed as imperceptible; <1% of critical load and is not significant. SAC is in excess of 15 km from the Proposed Development boundary and has therefore not been scoped into the Air Quality Assessment, but for all sites within 15 km, change is <1% of critical level and is not significant.	Chapter 8:Air Quality Paragraphs 8.6.27 – 8.6.31	No

Humber Estuary SAC

Qualifying Feature	Potential Impact	Potential Pathway for Effects	Summary of Evidence Presented in ES	ES Volume Reference	Likely Significant Effect Predicted?
<p>Estuaries</p> <p>Mudflats and sandflats not covered by seawater at low tide</p> <p>Sandbanks which are slightly covered by seawater all the time</p> <p>Coastal lagoons</p> <p><i>Salicornia</i> and other annuals colonising mud and sand</p> <p>Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)</p>	<p>Surface water pollution during construction phase</p>	<p>Pollution/ siltation of Humber Estuary via River Aire, which will be directly impacted by the Proposed Development.</p>	<p>Standard environmental measures to control pollution during construction phase will adequately minimise risk.</p> <p>Nearest part of site is 25km downstream, and any pollution would have significantly diluted by the point at which it enters the estuary.</p>	<p>Chapter 11: Water Resources, Flood Risk and Drainage</p> <p>Paragraphs 11.5.3 – 11.5.30</p>	<p>No</p>
Humber Estuary SPA					
<p>Populations of European importance of Annex I and Annex II over-wintering wildfowl and wading birds.</p> <p>Internationally important assemblage of migratory and wintering birds.</p>	<p>Surface water pollution during construction phase to habitats supporting internationally important bird populations</p>	<p>Pollution/ siltation of Humber Estuary via River Aire, which will be directly impacted by the Proposed Development.</p>	<p>Standard environmental measures to control pollution during construction phase will adequately minimise risk.</p> <p>Nearest part of site is 25km downstream, and any pollution would have significantly diluted by the point at which it enters the estuary.</p>	<p>Chapter 11: Water Resources, Flood Risk and Drainage</p> <p>Paragraphs 11.5.3 – 11.5.30</p>	<p>No</p>
Humber Estuary Ramsar					
<p>Estuarine habitats including dune systems, intertidal mud and sand flats, saltmarshes and brackish lagoons.</p>	<p>Surface water pollution during construction phase to habitats</p>	<p>Pollution/ siltation of Humber Estuary via River Aire, which will be directly impacted by the Proposed Development.</p>	<p>Standard environmental measures to control pollution during construction phase will adequately minimise risk.</p> <p>Nearest part of site is 25km downstream, and any pollution would have significantly diluted by the point at which it enters the</p>	<p>Chapter 11: Water Resources, Flood Risk and Drainage</p> <p>Paragraphs 11.5.3 – 11.5.30</p>	<p>No</p>

Qualifying Feature	Potential Impact	Potential Pathway for Effects	Summary of Evidence Presented in ES	ES Volume I Reference	Likely Significant Effect Predicted?
			estuary.		
Grey seal	Surface water pollution during construction phase to habitats supporting breeding grey seal	Pollution/ siltation of Humber Estuary via River Aire, which will be directly impacted by the Proposed Development.	Standard environmental measures to control pollution during construction phase will adequately minimise risk. Nearest breeding grey seal colony is at Donna Nook, over 80 km east, and any pollution would have significantly diluted by the point at which it enters the estuary.	Chapter 11: Water Resources, Flood Risk and Drainage Paragraphs 11.5.3 – 11.5.30	No
Internationally important populations of passage wildfowl and waders.	Surface water pollution during construction phase to habitats supporting internationally important bird populations	Pollution/ siltation of Humber Estuary via River Aire, which will be directly impacted by the Proposed Development.	Standard environmental measures to control pollution during construction phase will adequately minimise risk. Nearest part of site is 25km downstream, and any pollution would have significantly diluted by the point at which it enters the estuary.	Chapter 11: Water Resources, Flood Risk and Drainage Paragraphs 11.5.3 – 11.5.30	No
Strensall Common SAC					
Northern Atlantic wet heaths with <i>Erica tetralix</i>	Changes in air quality	NOx deposition from Proposed Power Plant stacks resulting in changes to critical levels and potential effects on vegetation assemblage.	Change is assumed as imperceptible; <1% of critical level and is not significant.	Chapter 8:Air Quality Paragraphs 8.6.27 – 8.6.31	No
European dry heaths			SAC is in excess of 15 km from the Proposed Development boundary and has therefore not been scoped into the Air Quality Assessment, but for all sites within 15 km, change is <1% of critical level and is not significant.		
		Nutrient nitrogen deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage	Change is assumed as imperceptible; <1% of critical load and is not significant. SAC is in excess of 15 km from the Proposed Development boundary	Chapter 8:Air Quality Paragraphs 8.6.27 – 8.6.31	No

Qualifying Feature	Potential Impact	Potential Pathway for Effects	Summary of Evidence Presented in ES	ES Volume Reference	Likely Significant Effect Predicted?
			and has therefore not been scoped into the Air Quality Assessment, but for all sites within 15 km, change is <1% of critical load and is not significant.		
		Acid deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage	Change is assumed as imperceptible; <1% of critical load and is not significant. SAC is in excess of 15 km from the Proposed Development boundary and has therefore not been scoped into the Air Quality Assessment, but for all sites within 15 km, change is <1% of critical level and is not significant.	Chapter 8:Air Quality Paragraphs 8.6.27 – 8.6.31	No
North York Moors SAC					
Northern Atlantic wet heaths with <i>Erica tetralix</i>	Changes in air quality	NOx deposition from Proposed Power Plant stacks resulting in changes to critical levels and potential effects on vegetation assemblage.	Change is assumed as imperceptible; <1% of critical level and is not significant. SAC is in excess of 15 km from the Proposed Development boundary and has therefore not been scoped into the Air Quality Assessment, but for all sites within 15 km, change is <1% of critical level and is not significant.	Chapter 8:Air Quality Paragraphs 8.6.27 – 8.6.31	No
European dry heaths					
		Nutrient nitrogen deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage	Change is assumed as imperceptible; <1% of critical load and is not significant. SAC is in excess of 15 km from the Proposed Development boundary and has therefore not been scoped into the Air Quality Assessment, but for all sites within 15 km, change is <1% of critical load and is not significant.	Chapter 8:Air Quality Paragraphs 8.6.27 – 8.6.31	No

Qualifying Feature	Potential Impact	Potential Pathway for Effects	Summary of Evidence Presented in ES	ES Volume I Reference	Likely Significant Effect Predicted?
		Acid deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage	Change is assumed as imperceptible; <1% of critical load and is not significant. SAC is in excess of 15 km from the Proposed Development boundary and has therefore not been scoped into the Air Quality Assessment, but for all sites within 15 km, change is <1% of critical level and is not significant.	Chapter 8:Air Quality Paragraphs 8.6.27 – 8.6.31	No

4. Mitigation

Measures will be implemented throughout the construction phase of the Proposed Development to ensure legislative compliance with regards to surface water run-off, and these measures will be detailed in the Construction Environmental Management Plan (CEMP) in accordance with a draft DCO Requirement (a framework is provided in Appendix 5A, ES Volume III). This includes a plan to deal with accidental pollution to be agreed with the Environment Agency. However, such measures are not considered to represent mitigation, as they are provided as a matter of course as 'best practice' for construction regardless of potential effects. Further details are provided in Chapter 11: Water Resources, Flood Risk and Drainage. This embedded mitigation will ensure that there is no adverse effect on the River Aire, and thus a negligible risk of affecting downstream habitats within the Humber Estuary SAC/ SPA/ Ramsar.

In addition, the Environmental Permit regime for the Proposed Development will ensure that abstraction and discharge to the River Aire is carefully managed to avoid any adverse effects on the water quality of the river and downstream habitats. This provides a control mechanism and thus certainty regarding the negligible risk to river habitats during the operational phase of the Proposed Development.

5. In-Combination Effects with Other Plans or Projects

Relevant projects considered as part of the cumulative effects assessment undertaken for the ecological impact assessment, along with potential cumulative effect topics of relevance to the HRA in-combination assessment are summarised in Table 5.1 below, along with the relevant signposting to ES Volume I chapters.

Several of the other developments identified in Chapter 20: Cumulative and Combined Effects of the ES Volume I have been screened out of potential cumulative ecological effects on the basis that there are no pathways by which the schemes could adversely affect ecological receptors within the zone of influence of the Proposed Development, either alone or in-combination. The following schemes have been scoped out on this basis: Solar Farm, Kellingley Colliery Business Park, Thorpe Marsh Gas Pipeline, single storey production facility at Saint Gobain glass factory and two residential developments at Eggborough. The rationale for this is presented in Chapter 20: Cumulative and Combined Effects, paragraphs 20.5.24 to 20.5.25.

The cumulative impact assessment for air quality (also presented in Chapter 20: Cumulative and Combined Effects) has confirmed that there will be no cumulative effects on any of the Natura 2000 sites as a result of acid and nitrogen deposition resulting from emissions to air. It can therefore be concluded that the Proposed Development will not result in likely significant effects on any Natura 2000 site, in-combination with other plans or projects.

Table 10H.4: Summary of Projects Considered in Cumulative Effects Assessment in ES

Project or Plan	Relevant Natura 2000 Site	Potential Cumulative Effects on Natura 2000 Sites	ES Volume I Reference	Likely Significant Effects In-combination with Proposed Development?
Eggborough Coal-Fired Power Station Decommissioning and Demolition	Humber Estuary SPA/ SAC/ Ramsar	No pathways identified. Any works to decommission/ remove the existing cooling water abstraction intake/ discharge infrastructure is already required as part of the Proposed Development, and the impacts have therefore already been assessed. This is therefore not a potential cumulative effect.	Chapter 20: Cumulative and Combined Effects Paragraph 20.5.27	No
	Skipwith Common SAC	No pathways identified.	Chapter 20: Cumulative and Combined Effects	No
	Thorne Moor SAC	Existing Eggborough Power Station will not be operational at the same time as the Proposed Development, and therefore there is no potential for cumulative air quality impacts.	Paragraph 20.5.10	
	Hatfield Moor SAC			
	Strensall Common SAC			
North York Moors SAC				
Ferrybridge Multifuel 2	Skipwith Common SAC	Cumulative air quality impacts resulting from acid and nitrogen deposition.	Chapter 20: Cumulative and Combined Effects	No
	Thorne Moor SAC	Assessment has concluded that there will be no cumulative effects on Natura 2000 sites.	Paragraphs 20.5.10 and 20.5.29	
	Hatfield Moor SAC			
	Strensall Common SAC			
	North York Moors SAC			
Knottingley Power Project	Skipwith Common SAC	Cumulative air quality impacts resulting from acid and nitrogen deposition.	Chapter 20: Cumulative and Combined Effects	No
	Thorne Moor SAC			

Project or Plan	Relevant Natura 2000 Site	Potential Cumulative Effects on Natura 2000 Sites	ES Volume I Reference	Likely Significant Effects In-combination with Proposed Development?
	Hatfield Moor SAC	Assessment has concluded that there will be no cumulative effects on Natura 2000 sites.	Paragraphs 20.5.10 and 20.5.29	
	Strensall Common SAC			
	North York Moors SAC			
Southmoor Energy Centre	Skipwith Common SAC	Cumulative air quality impacts resulting from acid and nitrogen deposition.	Chapter 20: Cumulative and Combined Effects	No
	Thorne Moor SAC	Assessment has concluded that there will be no cumulative effects on Natura 2000 sites.	Paragraphs 20.5.10 and 20.5.29	
	Hatfield Moor SAC			
	Strensall Common SAC			
	North York Moors SAC			
Advanced Thermal Treatment Plant	Skipwith Common SAC	Cumulative air quality impacts resulting from acid and nitrogen deposition.	Chapter 20: Cumulative and Combined Effects	No
	Thorne Moor SAC	Assessment has concluded that there will be no cumulative effects on Natura 2000 sites.	Paragraphs 20.5.10 and 20.5.29	
	Hatfield Moor SAC			
	Strensall Common SAC			
	North York Moors SAC			
Thorpe Marsh CCGT	Skipwith Common SAC	Cumulative air quality impacts resulting from acid and nitrogen deposition.	Chapter 20: Cumulative and Combined Effects	No
	Thorne Moor SAC	Assessment has concluded that there will be no cumulative effects on Natura 2000 sites.	Paragraphs 20.5.10 and 20.5.29	
	Hatfield Moor SAC			
	Strensall Common SAC			
	North York Moors SAC			

Project or Plan	Relevant Natura 2000 Site	Potential Cumulative Effects on Natura 2000 Sites	ES Volume I Reference	Likely Significant Effects In-combination with Proposed Development?
Chapel Haddlesey Hydroelectric Scheme	Humber Estuary SPA/ SAC/ Ramsar	No pathway for cumulative effects identified. Ecology report submitted in support of the application identifies no adverse effects on ecology features associated with the River Aire as a result of the construction or operation of the scheme. Construction is assumed to have been completed by the time construction of the Proposed Development will occur.	Chapter 20: Cumulative and Combined Effects Paragraph 20.5.25	No

6. References

European Commission (2007) *Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC*. Published on the internet at:

http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/guidance_art6_4_en.pdf

European Commission (2001) *Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*.

Natural England (2008) *Drigg Coast SAC/ SSSI – Conservation objectives and definitions of favourable condition for designated features of interest*. Natural England, Kendal

Office of the Deputy Prime Minister (ODPM) (2005) *Government circular: Biodiversity and geological conservation – statutory obligations and their impact within the planning system*

Annex A: Skipwith Common SAC Citation

EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora

Citation for Special Area of Conservation (SAC)


Name: Skipwith Common
Unitary Authority/County: North Yorkshire
SAC status: Designated on 1 April 2005
Grid reference: SE668362
SAC EU code: UK0030276
Area (ha): 295.20
Component SSSI: Skipwith Common SSSI

Site description:

The wet heath at Skipwith Common is the most extensive of its type in the north of England. The *Erica tetralix* – *Sphagnum compactum* community is dominated by cross-leaved heath *Erica tetralix* and purple moor-grass *Molinia caerulea*. There is a small population of marsh gentian *Gentiana pneumonanthe*. The wet heath is part of transitions from open water, fen, reed and swamp to dry heaths and other habitats. The dry heath element is a representative of *Calluna vulgaris* – *Deschampsia flexuosa* heath dominated by heather *Calluna vulgaris*.

Qualifying habitats: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- European dry heaths
- Northern Atlantic wet heaths with *Erica tetralix*. (Wet heathland with cross-leaved heath)

This citation relates to a site entered in the Register of European Sites for Great Britain.
Register reference number: UK0030276
Date of registration: 14 June 2005
Signed: 
On behalf of the Secretary of State for Environment, Food and Rural Affairs

Annex B: Thorne Moor SAC Citation

EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora

Citation for Special Area of Conservation (SAC)

Name: Thorne Moor
Unitary Authority/County: Doncaster, East Riding of Yorkshire, North Lincolnshire
SAC status: Designated on 1 April 2005
Grid reference: SE728163
SAC EU code: UK0012915
Area (ha): 1909.38
Component SSSI: Thorne, Crowle and Goole Moors SSSI

Site description:

Thorne Moor is England's largest area of raised bog, lying a few kilometres from the smaller Hatfield Moors, both within the former floodplain of the rivers feeding the Humber estuary (Humberhead Levels), and includes the sub-components Goole Moors and Crowle Moors. Although management has increased the proportion of active raised bog at Thorne Moors, the inclusion of Goole Moors, where peat-extraction has now ceased, means that the site is still predominantly degraded raised bog. The restored secondary surface is rich in species of bog-mosses *Sphagnum* spp., common and hare's-tail cottongrasses *Eriophorum angustifolium* and *E. vaginatum*, heather *Calluna vulgaris*, cross-leaved heath *Erica tetralix*, round-leaved sundew *Drosera rotundifolia*, cranberry *Vaccinium oxycoccos* and bog-rosemary *Andromeda polifolia*.

Qualifying habitats: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Degraded raised bogs still capable of natural regeneration

This citation relates to a site entered in the Register of European Sites for Great Britain.

Register reference number: UK0012915

Date of registration: 14 June 2005

Signed: _____

On behalf of the Secretary of State for Environment,
Food and Rural Affairs

Annex C: Hatfield Moor SAC Citation

EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora

Citation for Special Area of Conservation (SAC)


Name: Hatfield Moor
Unitary Authority/County: Doncaster, North Lincolnshire
SAC status: Designated on 1 April 2005
Grid reference: SE699057
SAC EU code: UK0030166
Area (ha): 1363.55
Component SSSI: Hatfield Moors SSSI

Site description:

Hatfield Moors is a remnant of an extensive lowland raised bog which once occupied the Humberhead levels. Hatfield is unique in having developed directly upon nutrient deficient gravels without an initial reed-swamp phase. Much of the bog has been cut for peat yet a restricted representative flora and fauna persists within a mosaic of mire and dry heath habitats beneath birch scrub. The mire communities are dominated by cottongrasses *Eriophorum vaginatum* and *E. angustifolium*, cross-leaved heath *Erica tetralix* and bog-mosses *Sphagnum* spp., but include locally rare species such as cranberry *Vaccinium oxycoccus*, bog myrtle *Myrica gale* and bog rosemary *Andromeda polifolia*.

Qualifying habitats: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Degraded raised bogs still capable of natural regeneration

This citation relates to a site entered in the Register of European Sites for Great Britain.
Register reference number: UK0030166
Date of registration: 14 June 2005
Signed 
On behalf of the Secretary of State for Environment, Food and Rural Affairs

Annex D: Humber Estuary SPA/ SAC/ Ramsar Citations

EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora

Citation for Special Area of Conservation (SAC)

Name:	Humber Estuary
Unitary Authority/County:	City of Kingston upon Hull, East Riding of Yorkshire, Lincolnshire, North East Lincolnshire, North Lincolnshire
SAC status:	Designated on 10 December 2009
Grid reference:	TA345110
SAC EU code:	UK0030170
Area (ha):	36657.15
Component SSSI:	Humber Estuary

Site description:

The Humber is the second largest coastal plain **Estuary** in the UK, and the largest coastal plain estuary on the east coast of Britain. The estuary supports a full range of saline conditions from the open coast to the limit of saline intrusion on the tidal rivers of the Ouse and Trent. The range of salinity, substrate and exposure to wave action influences the estuarine habitats and the range of species that utilise them; these include a breeding bird assemblage, winter and passage waterfowl, river and sea lamprey, grey seals, vascular plants and invertebrates.

The Humber is a muddy, macro-tidal estuary, fed by a number of rivers including the Rivers Ouse, Trent and Hull. Suspended sediment concentrations are high, and are derived from a variety of sources, including marine sediments and eroding boulder clay along the Holderness coast. This is the northernmost of the English east coast estuaries whose structure and function is intimately linked with soft eroding shorelines. The extensive mud and sand flats support a range of benthic communities, which in turn are an important feeding resource for birds and fish. Wave exposed sandy shores are found in the outer/open coast areas of the estuary. These change to the more moderately exposed sandy shores and then to sheltered muddy shores within the main body of the estuary and up into the tidal rivers.

Habitats within the Humber Estuary include **Atlantic salt meadows** and a range of sand dune types in the outer estuary, together with **Sandbanks which are slightly covered by sea water all the time**, extensive intertidal mudflats, **Salicornia and other annuals colonising mud and sand**, and **Coastal lagoons**. As salinity declines upstream, reedbeds and brackish saltmarsh communities fringe the estuary. These are best-represented at the confluence of the Rivers Ouse and Trent at Blacktoft Sands.

Upstream from the Humber Bridge, the navigation channel undergoes major shifts from north to south banks, for reasons that have yet to be fully explained. This section of the estuary is also noteworthy for extensive mud and sand bars, which in places form semi-permanent islands. The sand dunes are features of the outer estuary on both the north and south banks particularly on Spurn peninsula and along the Lincolnshire coast south of Cleethorpes. Examples of both **Fixed dunes with herbaceous vegetation (grey dunes)** and **Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)** occur on both banks of the estuary and along the coast. Native sea buckthorn **Dunes with *Hippophae rhamnoides*** also occurs on both sides of the estuary.

Significant fish species include **river lamprey *Lampetra fluviatilis*** and **sea lamprey *Petromyzon marinus*** which breed in the River Derwent, a tributary of the River Ouse. **Grey seals *Halichoerus grypus*** come ashore in autumn to form breeding colonies on the sandy shores of the south bank at Donna Nook.

Qualifying habitats: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- Coastal lagoons*
- Dunes with *Hippophae rhamnoides*
- Embryonic shifting dunes
- Estuaries
- Mudflats and sandflats not covered by seawater at low tide
- Fixed dunes with herbaceous vegetation ('grey dunes')*
- *Salicornia* and other annuals colonising mud and sand
- Sandbanks which are slightly covered by sea water all the time
- Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes')

Qualifying species: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- Grey seal *Halichoerus grypus*
- River lamprey *Lampetra fluviatilis*
- Sea lamprey *Petromyzon marinus*

Annex I priority habitats are denoted by an asterisk (*)

This citation relates to a site entered in the Register of European Sites for Great Britain.
Register reference number: UK0030170
Date of registration: 10 December 2009

Signed: [Redacted]
On behalf of the Secretary of State for
Environment, Food and Rural Affairs

EC Directive 79/409 on the Conservation of Wild Birds Special Protection Area (SPA)

Name: Humber Estuary

Unitary Authorities/Counties: City of Kingston-upon-Hull, East Riding of Yorkshire, Lincolnshire, North East Lincolnshire, North Lincolnshire

Component SSSIs: The SPA encompasses all or parts of the following Sites of Special Scientific Interest (SSSIs): Humber Estuary SSSI, North Killingholme Haven Pits SSSI, Saltfleetby-Theddlethorpe Dunes SSSI, and The Lagoons SSSI.

Site description: The Humber Estuary is located on the east coast of England, and comprises extensive wetland and coastal habitats. The inner estuary supports extensive areas of reedbed, with areas of mature and developing saltmarsh backed by grazing marsh in the middle and outer estuary. On the north Lincolnshire coast, the saltmarsh is backed by low sand dunes with marshy slacks and brackish pools. Parts of the estuary are owned and managed by conservation organisations. The estuary supports important numbers of waterbirds (especially geese, ducks and waders) during the migration periods and in winter. In summer, it supports important breeding populations of bittern *Botaurus stellaris*, marsh harrier *Circus aeruginosus*, avocet *Recurvirostra avosetta* and little tern *Sterna albifrons*.

Size of SPA: The SPA covers an area of 37,630.24 ha.

Qualifying species:

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 species listed in Annex I in any season:

Annex I species	Count and season	Period	% of GB population
Avocet <i>Recurvirostra avosetta</i>	59 individuals – wintering	5 year peak mean 1996/97 – 2000/01	1.7%
Bittern <i>Botaurus stellaris</i>	4 individuals – wintering	5 year peak mean 1998/99 – 2002/03	4.0%
Hen harrier <i>Circus cyaneus</i>	8 individuals – wintering	5 year peak mean 1997/98 – 2001/02	1.1%
Golden plover <i>Pluvialis apricaria</i>	30,709 individuals – wintering	5 year peak mean 1996/97 – 2000/01	12.3%
Bar-tailed godwit <i>Limosa lapponica</i>	2,752 individuals – wintering	5 year peak mean 1996/97 – 2000/01	4.4%
Ruff <i>Philomachus pugnax</i>	128 individuals – passage	5 year peak mean 1996-2000	1.4%
Bittern <i>Botaurus stellaris</i>	2 booming males – breeding	3 year mean 2000-2002	10.5%
Marsh harrier <i>Circus aeruginosus</i>	10 females – breeding	5 year mean 1998-2002	6.3%
Avocet <i>Recurvirostra avosetta</i>	64 pairs – breeding	5 year mean 1998 – 2002	8.6%
Little tern <i>Sterna albifrons</i>	51 pairs – breeding	5 year mean 1998-2002	2.1%

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 the following regularly occurring migratory species (other than those listed in Annex I) in any season:

Migratory species	Count and season	Period	% of subspecies/ population
Shelduck <i>Tadorna tadorna</i>	4,464 individuals – wintering	5 year peak mean 1996/97 – 2000/01	1.5% Northwestern Europe (breeding)
Knot <i>Calidris canutus</i>	28,165 individuals – wintering	5 year peak mean 1996/97 – 2000/01	6.3% <i>islandica</i>
Dunlin <i>Calidris alpina</i>	22,222 individuals – wintering	5 year peak mean 1996/97 – 2000/01	1.7% <i>alpina</i> , Western Europe (non-breeding)
Black-tailed godwit <i>Limosa limosa</i>	1,113 individuals – wintering	5 year peak mean 1996/97 – 2000/01	3.2% <i>islandica</i>
Redshank <i>Tringa totanus</i>	4,632 individuals – wintering	5 year peak mean 1996/97 – 2000/01	3.6% <i>britannica</i>
Knot <i>Calidris canutus</i>	18,500 individuals – passage	5 year peak mean 1996 – 2000	4.1% <i>islandica</i>
Dunlin <i>Calidris alpina</i>	20,269 individuals – passage	5 year peak mean 1996 – 2000	1.5% <i>alpina</i> , Western Europe (non-breeding)
Black-tailed godwit <i>Limosa limosa</i>	915 individuals – passage	5 year peak mean 1996 – 2000	2.6% <i>islandica</i>
Redshank <i>Tringa totanus</i>	7,462 individuals – passage	5 year peak mean 1996 – 2000	5.7% <i>britannica</i>

Bird counts from: Wetland Bird Survey (WeBS) database and *The Humber Estuary: A comprehensive review of its nature conservation interest* (Allen et al. 2003).

Assemblage qualification:

The site qualifies under **article 4.2** of the Directive (79/409/EEC) as it is used regularly by over 20,000 waterbirds (waterbirds as defined by the Ramsar Convention) in any season:


In the non-breeding season, the area regularly supports 153,934 individual waterbirds (five year peak mean 1996/97 – 2000/01), including dark-bellied brent goose *Branta bernicla bernicla*, shelduck *Tadorna tadorna*, wigeon *Anas penelope*, teal *Anas crecca*, mallard *Anas platyrhynchos*, pochard *Aythya ferina*, scaup *Aythya marila*, goldeneye *Bucephala clangula*, bittern *Botaurus stellaris*, oystercatcher *Haematopus ostralegus*, avocet *Recurvirostra avosetta*, ringed plover *Charadrius hiaticula*, golden plover *Pluvialis apricaria*, grey plover *P. squatarola*, lapwing *Vanellus vanellus*, knot *Calidris canutus*, sanderling *C. alba*, dunlin *C. alpina*, ruff *Philomachus pugnax*, black-tailed godwit *Limosa limosa*, bar-tailed godwit *L. lapponica*, whimbrel *Numenius phaeopus*, curlew *N. arquata*, redshank *Tringa totanus*, greenshank *T. nebularia* and turnstone *Arenaria interpres*.

Non-qualifying species of interest: The SPA is used by non-breeding merlin *Falco columbarius*, peregrine *F. peregrinus* and short-eared owl *Asio flammeus*, and breeding common tern *Sterna hirundo* and kingfisher *Alcedo atthis* (all species listed in Annex I to the EC Birds Directive) in numbers of less than European importance (less than 1% of the GB population).

Status of SPA:

- 1) Humber Flats, Marshes and Coast (Phase 1) SPA was classified on 28 July 1994.
- 2) The extended and renamed Humber Estuary SPA was classified on 31 August 2007.

This citation relates to a site entered in the Register of European Sites for Great Britain.
Register reference number: UK9006111
Date of registration: 31 August 2007

Signed: 
On behalf of the Secretary of State for
Environment, Food and Rural Affairs

Annex E: Strensall Common SAC Citation

EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora

Citation for Special Area of Conservation (SAC)

Name: Strensall Common
Unitary Authority/County: York
SAC status: Designated on 1 April 2005
Grid reference: SE651598
SAC EU code: UK0030284
Area (ha): 569.63
Component SSSI: Strensall Common SSSI


Site description:

Strensall Common is an example of acidic lowland heath represented predominantly by *Erica tetralix* – *Sphagnum compactum* wet heath, although its extent has been reduced by drainage. It is a noted locality for marsh gentian *Gentiana pneumonanthe*, narrow buckler-fern *Dryopteris carthusiana* and the dark-bordered beauty moth *Epione vespertaria* as it is associated with creeping willow *Salix repens* on the wet heath.

There is also a complex mosaic of wet heaths with *Erica tetralix* and dry heath elements. The *Calluna vulgaris* – *Deschampsia flexuosa* dry heath is noted for petty whin *Genista anglica* and bird's-foot *Ornithopus perpusillus*.

Qualifying habitats: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- European dry heaths.
- Northern Atlantic wet heaths with *Erica tetralix* (wet heathland with cross-leaved heath).

This citation relates to a site entered in the Register of European Sites for Great Britain.
Register reference number: UK0030284
Date of registration: 14 June 2005
Signed: 
On behalf of the Secretary of State for Environment,
Food and Rural Affairs

Annex F: North York Moors SAC Citation

EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora

Citation for Special Area of Conservation (SAC)

Name: North York Moors
Unitary Authority/County: North Yorkshire, Redcar and Cleveland
SAC status: Designated on 1 April 2005
Grid reference: NZ711021
SAC EU code: UK0030228
Area (ha): 44082.25
Component SSSI: North York Moors SSSI

Site description:

This site in north-east Yorkshire within the North York Moors National Park contains the largest continuous tract of upland heather moorland in England. Dry heath covers over half the site and forms the main vegetation type on the western, southern and central moors where the soil is free-draining and has only a thin peat layer. The principal type present is heather – wavy hair-grass (*Calluna vulgaris* – *Deschampsia flexuosa*) heath, with some heather – bell heather *Erica cinerea* heath on well-drained areas throughout the site, and large areas of heather – bilberry *Vaccinium myrtillus* heath on steeper slopes.

Cross-leaved heath – bog-moss (*Erica tetralix* – *Sphagnum compactum*) wet heath is the second most extensive vegetation type on the site and is predominantly found on the eastern and northern moors where the soil is less free-draining. Purple moor-grass *Molinia caerulea* and heath rush *Juncus squarrosus* are also common within this community. In the wettest stands bog-mosses, including *Sphagnum tenellum*, occur, and the nationally scarce creeping forget-me-not *Myosotis stolonifera* can be found in acid moorland streams and shallow pools.

Blanket mire occurs in small amounts along the main watershed of the high moors where deep peat has accumulated. These areas are dominated by heather and cross-leaved heath with frequent hare's-tail cottongrass *Eriophorum vaginatum* and common cottongrass *E. angustifolium*.

Qualifying habitats: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Blanket bogs*
- European dry heaths
- Northern Atlantic wet heaths with *Erica tetralix*. (Wet heathland with cross-leaved heath)

Annex I priority habitats are denoted by an asterisk (*).

This citation relates to a site entered in the Register of European Sites for Great Britain.
Register reference number: UK0030228
Date of registration: 14 June 2005
Signed: [REDACTED]
On behalf of the Secretary of State for Environment, Food and Rural Affairs

Annex G: PINS Screening Matrices

Planning Inspectorate

Advice Note 10

Habitats Regulations Assessment

Appendix 1: Template for Screening Matrices

Potential Impacts

Potential impacts upon the European site(s)* that are considered within the submitted Habitats Regulations Assessment Signposting report (ES Volume III, Appendix 10H) are provided in the table below. These include six Special Areas of Conservation (SAC), one Special Protection Area (SPA) and one Ramsar site covering a total of six sites (the SAC, SPA and Ramsar designations overlap for the Humber Estuary European site). Impacts have been grouped where appropriate for ease of presentation.

* As defined in Advice Note 10.
Appendix 1 Screening Matrices

Impacts considered within the screening matrices

Designation	Impacts in submission information	Presented in screening matrices as
Skipwith Common SAC	<ul style="list-style-type: none"> • Changes in air quality during operational phase 	<ul style="list-style-type: none"> • Changes in air quality during operational phase
Thorne Moor SAC	<ul style="list-style-type: none"> • Changes in air quality during operational phase 	<ul style="list-style-type: none"> • Changes in air quality during operational phase
Hatfield Moor SAC	<ul style="list-style-type: none"> • Changes in air quality during operational phase 	<ul style="list-style-type: none"> • Changes in air quality during operational phase
Humber Estuary SAC	<ul style="list-style-type: none"> • Surface water pollution during construction phase 	<ul style="list-style-type: none"> • Surface water pollution during construction phase
Humber Estuary SPA	<ul style="list-style-type: none"> • Surface water pollution during construction phase to habitats supporting internationally important bird populations 	<ul style="list-style-type: none"> • Surface water pollution during construction phase to habitats supporting internationally important bird populations
Humber Estuary Ramsar	<ul style="list-style-type: none"> • Surface water pollution during construction phase to habitats • Surface water pollution during construction phase to habitats supporting breeding grey seal • Surface water pollution during construction phase to habitats supporting internationally important bird populations 	<ul style="list-style-type: none"> • Surface water pollution during construction phase to habitats • Surface water pollution during construction phase to habitats supporting breeding grey seal • Surface water pollution during construction phase to habitats supporting internationally important bird populations
Strensall Common SAC	<ul style="list-style-type: none"> • Changes in air quality during operational phase 	<ul style="list-style-type: none"> • Changes in air quality during operational phase

Designation	Impacts in submission information	Presented in screening matrices as
North York Moors SAC	<ul style="list-style-type: none">• Changes in air quality during operational phase	<ul style="list-style-type: none">• Changes in air quality during operational phase

STAGE 1: SCREENING MATRICES

The European Sites included within the assessment presented in Chapter 10 of the Environmental Statement (ES) are:

- Skipwith Common SAC
- Thorne Moor SAC
- Hatfield Moor SAC
- Humber Estuary SAC
- Humber Estuary SPA
- Humber Estuary Ramsar
- Strensall Common SAC
- North York Moors SAC

The rationale for scoping these six European sites into the assessment is provided in the Ecology chapter (ES Volume I, Chapter 10: Section 10.4) and the HRA Screening report (ES Volume II, Chapter 10: Appendix H). The location of the European sites in relation to the proposed development is shown on Figure 10H.1 (ES Volume III, Chapter 10: Appendix 10H).

The Stage 1 screening for each European site is presented in Matrices A to H in this Appendix. Evidence for likely significant effects on their qualifying features is detailed within the footnotes to the screening matrices below, which provides signposting to the relevant information in chapters in Volume I of the ES, and supporting technical appendices in Volume III of the ES as appropriate[†].

Likely significant effects arising from decommissioning have been scoped out for all European sites and are therefore greyed out in the matrices in this appendix. This is because the gas connection pipeline, cooling water abstraction pipeline and the intake and outfall structures on the River Aire will remain *in-situ*.

[†] Of the six sites scoped into the ecological impact assessment only Skipwith Common SAC and Thorne Moor SAC have been subject to detailed air quality modelling in Chapter 8, which scoped in designated sites within a 15 km radius from the Proposed Development. However, for both SACs the predicted effects were assessed as negligible and therefore it is reasonable to assume that this assessment conclusion is similarly applicable to designated sites beyond a 15 km radius from the Proposed Development.

Matrix Key:

- ✓ = Likely significant effect **cannot** be excluded
- ✗ = Likely significant effect **can** be excluded

- C = construction
- O = operation
- D = decommissioning

Where effects are not applicable to a particular feature they are greyed out.

A separate matrix for in-combination effects has been provided for each European site. The rationale for scoping plans or projects into the in-combination effects assessment is presented in ES Volume I, Chapter 20 (Cumulative and Combined Effects). Plans or projects scoped into the in-combination effects screening were as follows:

- Eggborough Coal-Fired Power Station Decommissioning and Demolition
- Ferrybridge Multifuel 2
- Knottingley Power Project
- Southmoor Energy Centre
- Advanced Thermal Treatment Plant
- Thorpe Marsh CCGT
- Chapel Haddlesey Hydroelectric Scheme

The Stage 2 Integrity Matrices as set out in Planning Inspectorate Advice Habitats Regulations Assessment Note 10 Appendix 2 (Template for Integrity Matrices) have not been completed because the Stage 1 screening has not identified any likely significant effects on the European designated sites.

Stage 1 Matrix A: Skipwith Common SAC

MATRIX A1: Likely Effects Screening												
Name of European site: Skipwith Common SAC												
Distance to NSIP: Approximately 10.5 km												
European site features	Likely Effects of NSIP											
	NOx deposition from Proposed Power Plant stacks resulting in changes to critical levels and potential effects on vegetation assemblage.			Nutrient nitrogen deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage			Acid deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage					
	C	O	D	C	O	D	C	O	D			
Northern Atlantic wet heaths with <i>Erica tetralix</i>	x	x a	x	x	x b	x	x	x c	x			
European dry heaths	x	x a	x	x	x b	x	x	x c	x			
Evidence supporting likely effects screening conclusions												
<p>a. Change is imperceptible; <1% of critical level and is not significant. See ES Volume I, Chapter 8 (Air Quality), paragraphs 8.6.27 – 8.6.31 and Appendix 8A (Air Quality Assessment) Table 8A.11.</p> <p>b. Change is imperceptible; <1% of critical load and is not significant. See ES Volume I, Chapter 8 (Air Quality), paragraphs 8.6.27 – 8.6.31 and Appendix 8A (Air Quality Assessment) Table 8A.12.</p> <p>c. Change is imperceptible; <1% of critical load and is not significant. See ES Volume I, Chapter 8 (Air Quality), paragraphs 8.6.27 – 8.6.31 and Appendix 8A (Air Quality Assessment) Table 8A.13.</p>												

MATRIX A2: Likely In-combination Effects Screening												
Name of European site: Skipwith Common SAC												
Distance to NSIP: Approximately 10.5 km												
European site features	Likely In-Combination Effects of NSIP											
	Eggborough Coal-Fired Power Station Decommissioning and Demolition No pathways identified			Ferrybridge Multifuel 2 Cumulative air quality impacts resulting from acid and nitrogen deposition			Knottingley Power Project Cumulative air quality impacts resulting from acid and nitrogen deposition			Southmoor Energy Centre Cumulative air quality impacts resulting from acid and nitrogen deposition		
	C	O	D	C	O	D	C	O	D	C	O	D
Northern Atlantic wet heaths with <i>Erica tetralix</i>	x	x	x	x	xa	x	x	xa	x	x	xa	x
European dry heaths	x	x	x	x	xa	x	x	xa	x	x	xa	x
European site features	Likely In-Combination Effects of NSIP											
	Advanced Thermal Treatment Plant Cumulative air quality impacts resulting from acid and nitrogen deposition.			Thorpe Marsh CCGT Cumulative air quality impacts resulting from acid and nitrogen deposition.			Chapel Haddlesey Hydroelectric Scheme No pathways identified					

	C	O	D	C	O	D	C	O	D			
Northern Atlantic wet heaths with <i>Erica tetralix</i>	x	xa	x	x	xa	x	x	x	x			
European dry heaths	x	xa	x	x	xa	x	x	x	x			
Evidence supporting in-combination screening conclusions												
a. Air Quality Assessment has concluded that there will be no cumulative effects on Natura 2000 sites. See ES Volume I, Chapter 20 (Cumulative & Combined Effects), paragraphs 20.5.10 and 20.5.29.												

Stage 1 Matrix B: Thorne Moor SAC

MATRIX B1: Likely Effects Screening												
Name of European site: Thorne Moor SAC												
Distance to NSIP: Approximately 14 km												
European site features	Likely Effects of NSIP											
	NOx deposition from Proposed Power Plant stacks resulting in changes to critical levels and potential effects on vegetation assemblage.			Nutrient nitrogen deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage			Acid deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage					
	C	O	D	C	O	D	C	O	D			
Degraded raised bogs still capable of natural regeneration	x	x^a	x	x	x^b	x	x	x^c	x			
Evidence supporting likely effects screening conclusions												
<p>a. Change is imperceptible; <1% of critical level and is not significant. See ES Volume I, Chapter 8 (Air Quality), paragraphs 8.6.27 – 8.6.31 and Appendix 8A (Air Quality Assessment) Table 8A.11.</p> <p>b. Change is imperceptible; <1% of critical load and is not significant. See ES Volume I, Chapter 8 (Air Quality), paragraphs 8.6.27 – 8.6.31 and Appendix 8A (Air Quality Assessment) Table 8A.12.</p> <p>c. Change is imperceptible; <1% of critical load and is not significant. See ES Volume I, Chapter 8 (Air Quality), paragraphs 8.6.27 – 8.6.31 and Appendix 8A (Air Quality Assessment) Table 8A.13.</p>												

MATRIX B2: Likely In-combination Effects Screening												
Name of European site: Thorne Moor SAC												
Distance to NSIP: Approximately 14 km												
European site features	Likely In-Combination Effects of NSIP											
	Eggborough Coal-Fired Power Station Decommissioning and Demolition No pathways identified			Ferrybridge Multifuel 2 Cumulative air quality impacts resulting from acid and nitrogen deposition			Knottingley Power Project Cumulative air quality impacts resulting from acid and nitrogen deposition			Southmoor Energy Centre Cumulative air quality impacts resulting from acid and nitrogen deposition		
	C	O	D	C	O	D	C	O	D	C	O	D
Degraded raised bogs still capable of natural regeneration	x	x	x	x	xa	x	x	xa	x	x	xa	x
European site features	Likely In-Combination Effects of NSIP											
	Advanced Thermal Treatment Plant Cumulative air quality impacts resulting from acid and nitrogen deposition.			Thorpe Marsh CCGT Cumulative air quality impacts resulting from acid and nitrogen deposition.			Chapel Haddlesey Hydroelectric Scheme No pathways identified					
	C	O	D	C	O	D	C	O	D			

Degraded raised bogs still capable of natural regeneration	x	xa	x	x	xa	x	x	x	x			
<p>Evidence supporting in-combination screening conclusions</p> <p>a. Air Quality Assessment has concluded that there will be no cumulative effects on Natura 2000 sites. See ES Volume I, Chapter 20 (Cumulative & Combined Effects), paragraphs 20.5.10 and 20.5.29.</p>												

Stage 1 Matrix C: Hatfield Moor SAC

MATRIX C1: Likely Effects Screening												
Name of European site: Hatfield Moor SAC												
Distance to NSIP: Approximately 19 km												
European site features	Likely Effects of NSIP											
	NOx deposition from Proposed Power Plant stacks resulting in changes to critical levels and potential effects on vegetation assemblage.			Nutrient nitrogen deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage			Acid deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage					
	C	O	D	C	O	D	C	O	D			
Degraded raised bogs still capable of natural regeneration	x	xa	x	x	xb	x	x	xc	x			
Evidence supporting likely effects screening conclusions												
<p>a. Change assumed imperceptible; <1% of critical level and not significant because SAC is >15km from Proposed Development and was therefore not scoped into the air quality assessment. See ES Volume I, Chapter 8 (Air Quality), paragraphs 8.6.27 – 8.6.31.</p> <p>b. Change assumed imperceptible; <1% of critical load and not significant because SAC is >15km from Proposed Development and was therefore not scoped into the air quality assessment. See ES Volume I, Chapter 8 (Air Quality), paragraphs 8.6.27 – 8.6.31.</p> <p>c. Change assumed imperceptible; <1% of critical load and not significant because SAC is >15km from Proposed Development and was therefore not scoped into the air quality assessment. See ES Volume I, Chapter 8 (Air Quality), paragraphs 8.6.27 – 8.6.31.</p>												

MATRIX C2: Likely In-combination Effects Screening												
Name of European site: Hatfield Moor SAC												
Distance to NSIP: Approximately 19 km												
European site features	Likely In-Combination Effects of NSIP											
	Eggborough Coal-Fired Power Station Decommissioning and Demolition No pathways identified			Ferrybridge Multifuel 2 Cumulative air quality impacts resulting from acid and nitrogen deposition			Knottingley Power Project Cumulative air quality impacts resulting from acid and nitrogen deposition			Southmoor Energy Centre Cumulative air quality impacts resulting from acid and nitrogen deposition		
	C	O	D	C	O	D	C	O	D	C	O	D
Degraded raised bogs still capable of natural regeneration	x	x	x	x	xa	x	x	xa	x	x	xa	x
European site features	Likely In-Combination Effects of NSIP											
	Advanced Thermal Treatment Plant Cumulative air quality impacts resulting from acid and nitrogen deposition.			Thorpe Marsh CCGT Cumulative air quality impacts resulting from acid and nitrogen deposition.			Chapel Haddlesey Hydroelectric Scheme No pathways identified					
	C	O	D	C	O	D	C	O	D			
Degraded raised bogs still capable of	x	xa	x	x	xa	x	x	x	x			

natural regeneration												
Evidence supporting in-combination screening conclusions a. Air Quality Assessment has concluded that there will be no cumulative effects on Natura 2000 sites. See ES Volume I, Chapter 20 (Cumulative & Combined Effects), paragraphs 20.5.10 and 20.5.29.												

Stage 1 Matrix D: Humber Estuary SAC

MATRIX D1: Likely Effects Screening												
Name of European site: Humber Estuary SAC												
Distance to NSIP: Approximately 15 km												
European site features	Likely Effects of NSIP											
	Surface water pollution during construction phase											
	C	O	D									
Estuaries	× a	×	×									
Mudflats and sandflats not covered by seawater at low tide	× a	×	×									
Sandbanks which are slightly covered by seawater all the time	× a	×	×									
Coastal lagoons	× a	×	×									
<i>Salicornia</i> and other annuals colonising mud and sand	× a	×	×									

Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	xa	x	x									
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Evidence supporting likely effects screening conclusions

a. Standard environmental measures to control pollution during construction phase will adequately minimise risk. Nearest part of site is 25km downstream, and any pollution would have significantly diluted by the point at which it enters the estuary. See ES Volume I, Chapter 11 (Water Resources, Hydrology & Flood Risk), paragraphs 11.5.3 – 11.5.30.

MATRIX D2: Likely In-combination Effects Screening												
Name of European site: Humber Estuary SAC												
Distance to NSIP: Approximately 15 km												
European site features	Likely In-Combination Effects of NSIP											
	Eggborough Coal-Fired Power Station Decommissioning and Demolition No pathways identified			Ferrybridge Multifuel 2 Cumulative air quality impacts resulting from acid and nitrogen deposition			Knottingley Power Project Cumulative air quality impacts resulting from acid and nitrogen deposition			Southmoor Energy Centre Cumulative air quality impacts resulting from acid and nitrogen deposition		
	C	O	D	C	O	D	C	O	D	C	O	D
Estuaries	xa	x	x	x	x	x	x	x	x	x		x
Mudflats and sandflats not covered by seawater at low tide	xa	x	x	x	x	x	x	x	x	x	x	x

Sandbanks which are slightly covered by seawater all the time	xa	x	x	x	x	x	x	x	x	x	x	x
Coastal lagoons	xa	x	x	x	x	x	x	x	x	x	x	x
<i>Salicornia</i> and other annuals colonising mud and sand	xa	x	x	x	x	x	x	x	x	x	x	x
Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	xa	x	x	x	x	x	x	x	x	x	x	x
European site features	Likely In-Combination Effects of NSIP											
	Advanced Thermal Treatment Plant Cumulative air quality impacts resulting from acid and nitrogen deposition.			Thorpe Marsh CCGT Cumulative air quality impacts resulting from acid and nitrogen deposition.			Chapel Haddlesley Hydroelectric Scheme No pathways identified					
	C	O	D	C	O	D	C	O	D			
Estuaries	x	x	x	x	x	x	xb	x	x			
Mudflats and sandflats not covered by seawater at low tide	x	x	x	x	x	x	xb	x	x			
Sandbanks which are slightly covered by seawater all the time	x	x	x	x	x	x	xb	x	x			

Coastal lagoons	x	x	x	x	x	x	x	x	x			
<i>Salicornia</i> and other annuals colonising mud and sand	x	x	x	x	x	x	x	x	x			
Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	x	x	x	x	x	x	x	x	x			
<p>Evidence supporting in-combination screening conclusions</p> <p>a. Any works to decommission/ remove the existing cooling water abstraction intake/ discharge infrastructure is already required as part of the Proposed Development, and the impacts have therefore already been assessed. This is therefore not a potential cumulative effect. See ES Volume I, Chapter 20 (Cumulative & Combined Effects), paragraph 20.5.27.</p> <p>b. Ecology report submitted in support of the application identifies no adverse effects on ecology features associated with the River Aire as a result of the construction or operation of the scheme. Construction is assumed to have been completed by the time construction of the Proposed Development will occur. See ES Volume I, Chapter 10 (Ecology & Nature Conservation), paragraph 20.5.25.</p>												

Stage 1 Matrix E: Humber Estuary SPA

MATRIX E1: Likely Effects Screening													
Name of European site: Humber Estuary SPA													
Distance to NSIP: Approximately 15 km													
European site features	Likely Effects of NSIP												
	Surface water pollution during construction phase to habitats supporting internationally important bird populations												
	C	O	D										
Populations of European importance of Annex I and Annex II over-wintering wildfowl and wading birds.	× a	×	×										
Internationally important assemblage of migratory and wintering birds.	× a	×	×										

Evidence supporting likely effect screening conclusions

a. Standard environmental measures to control pollution during construction phase will adequately minimise risk. Nearest part of site is 25km downstream, and any pollution would have significantly diluted by the point at which it enters the estuary. See ES Volume I, Chapter 11 (Water Resources, Hydrology & Flood Risk), paragraphs 11.5.3 – 11.5.30.

MATRIX E2: Likely In-combination Effects Screening												
Name of European site: Humber Estuary SPA												
Distance to NSIP: Approximately 15 km												
European site features	Likely In-Combination Effects of NSIP											
	Eggborough Coal-Fired Power Station Decommissioning and Demolition No pathways identified			Ferrybridge Multifuel 2 Cumulative air quality impacts resulting from acid and nitrogen deposition			Knottingley Power Project Cumulative air quality impacts resulting from acid and nitrogen deposition			Southmoor Energy Centre Cumulative air quality impacts resulting from acid and nitrogen deposition		
	C	O	D	C	O	D	C	O	D	C	O	D
Populations of European importance of Annex I and Annex II over-wintering wildfowl and wading birds.	× a	×	×	×	×	×	×	×	×	×	×	×

Internationally important assemblage of migratory and wintering birds.	xa	x	x	x	x	x	x	x	x	x	x	x
European site features	Likely In-Combination Effects of NSIP											
	Advanced Thermal Treatment Plant Cumulative air quality impacts resulting from acid and nitrogen deposition.			Thorpe Marsh CCGT Cumulative air quality impacts resulting from acid and nitrogen deposition.			Chapel Haddlesey Hydroelectric Scheme No pathways identified					
	C	O	D	C	O	D	C	O	D			
Populations of European importance of Annex I and Annex II over-wintering wildfowl and wading birds.	x	x	x	x	x	x	xb	x	x			
Internationally important assemblage of migratory and wintering birds.	x	x	x	x	x	x	xb	x	x			

Evidence supporting in-combination screening conclusions

a. Any works to decommission/ remove the existing cooling water abstraction intake/ discharge infrastructure is already required as part of the Proposed Development, and the impacts have therefore already been assessed. This is therefore not a potential cumulative effect. See ES Volume I, Chapter 20 (Cumulative & Combined Effects), paragraphs 20.5.27.

b. Ecology report submitted in support of the application identifies no adverse effects on ecology features associated with the River Aire as a result of the construction or operation of the scheme. Construction is assumed to have been completed by the time construction of the Proposed Development will occur. See ES Volume I, Chapter 20 (Cumulative & Combined Effects), paragraph 20.5.25.

Stage 1 Matrix F: Humber Estuary Ramsar

MATRIX F1: Likely Effects Screening												
Name of European site: Humber Estuary Ramsar												
Distance to NSIP: Approximately 15 km												
European site features	Likely Effects of NSIP											
	Surface water pollution during construction phase to habitats											
	<i>C</i>	<i>O</i>	<i>D</i>	<i>C</i>	<i>O</i>	<i>D</i>	<i>C</i>	<i>O</i>	<i>D</i>	<i>C</i>	<i>O</i>	<i>D</i>
Estuarine habitats including dune systems, intertidal mud and sand flats, saltmarshes and brackish lagoons.	× a	×	×									
Grey seal	× b	×	×									
Internationally important populations of passage wildfowl and waders.	× a	×	×									

Evidence supporting likely effects screening conclusions

a. Standard environmental measures to control pollution during construction phase will adequately minimise risk. Nearest part of site is 25km downstream, and any pollution would have significantly diluted by the point at which it enters the estuary. See ES Volume I, Chapter 11 (Water Resources, Hydrology & Flood Risk), paragraphs 11.5.3 – 11.5.30.

b. Standard environmental measures to control pollution during construction phase will adequately minimise risk. Nearest breeding grey seal colony is at Donna Nook, over 80 km east, and any pollution would have significantly diluted by the point at which it enters the estuary. See ES Volume I, Chapter 11 (Water Resources, Hydrology & Flood Risk), paragraphs 11.5.3 – 11.5.30.

MATRIX F2: Likely In-combination Effects Screening

Name of European site: Humber Estuary Ramsar

Distance to NSIP: Approximately 15 km

European site features	Likely In-Combination Effects of NSIP											
	Eggborough Coal-Fired Power Station Decommissioning and Demolition			Ferrybridge Multifuel 2			Knottingley Power Project			Southmoor Energy Centre		
	No pathways identified			Cumulative air quality impacts resulting from acid and nitrogen deposition			Cumulative air quality impacts resulting from acid and nitrogen deposition			Cumulative air quality impacts resulting from acid and nitrogen deposition		
	C	O	D	C	O	D	C	O	D	C	O	D
Estuarine habitats including dune systems, intertidal mud and sand flats, saltmarshes and brackish lagoons.	x ^a	x	x	x	x	x	x	x	x	x	x	x

Grey seal	xa	x	x	x	x	x	x	x	x	x	x	x
Internationally important populations of passage wildfowl and waders.	xa	x	x	x	x	x	x	x	x	x	x	x
European site features	Likely In-Combination Effects of NSIP											
	Advanced Thermal Treatment Plant Cumulative air quality impacts resulting from acid and nitrogen deposition.			Thorpe Marsh CCGT Cumulative air quality impacts resulting from acid and nitrogen deposition.			Chapel Haddlesey Hydroelectric Scheme No pathways identified					
	C	O	D	C	O	D	C	O	D			
Estuarine habitats including dune systems, intertidal mud and sand flats, saltmarshes and brackish lagoons.	x	x	x	x	x	x	xb	x	x			
Grey seal	x	x	x	x	x	x	xb	x	x			
Internationally important populations of passage wildfowl and waders.	x	x	x	x	x	x	xb	x	x			

Evidence supporting in-combination screening conclusions

a. Any works to decommission/ remove the existing cooling water abstraction intake/ discharge infrastructure is already required as part of the Proposed Development, and the impacts have therefore already been assessed. This is therefore not a potential cumulative effect. See ES Volume I, Chapter 20 (Cumulative & Combined Effects), paragraphs 20.5.27.

b. Ecology report submitted in support of the application identifies no adverse effects on ecology features associated with the River Aire as a result of the construction or operation of the scheme. Construction is assumed to have been completed by the time construction of the Proposed Development will occur. See ES Volume I, Chapter 10 (Ecology & Nature Conservation), paragraph 20.5.25.

Stage 1 Matrix G: Strensall Common SAC

MATRIX G1: Likely Effects Screening												
Name of European site: Strensall Common SAC												
Distance to NSIP: Approximately 35 km												
European site features	Likely Effects of NSIP											
	NOx deposition from Proposed Power Plant stacks resulting in changes to critical levels and potential effects on vegetation assemblage.			Nutrient nitrogen deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage			Acid deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage					
	C	O	D	C	O	D	C	O	D			
Northern Atlantic wet heaths with <i>Erica tetralix</i>	x	x a	x	x	x b	x	x	x c	x			
European dry heaths	x	x a	x	x	x b	x	x	x c	x			
Evidence supporting conclusions												
<p>a. Change assumed imperceptible; <1% of critical level and not significant because SAC is >15km from Proposed Development and was therefore not scoped into the air quality assessment. See ES Volume I, Chapter 8 (Air Quality), paragraphs 8.6.27 – 8.6.31.</p> <p>b. Change assumed imperceptible; <1% of critical load and not significant because SAC is >15km from Proposed Development and was therefore not scoped into the air quality assessment. See ES Volume I, Chapter 8 (Air Quality), paragraphs 8.6.27 – 8.6.31.</p> <p>c. Change assumed imperceptible; <1% of critical load and not significant because SAC is >15km from Proposed Development and was therefore not scoped into the air quality assessment. See ES Volume I, Chapter 8 (Air Quality), paragraphs 8.6.27 – 8.6.31.</p>												

MATRIX G2: Likely In-combination Effects Screening												
Name of European site: Strensall Common SAC												
Distance to NSIP: Approximately 35 km												
European site features	Likely In-Combination Effects of NSIP											
	Eggborough Coal-Fired Power Station Decommissioning and Demolition No pathways identified			Ferrybridge Multifuel 2 Cumulative air quality impacts resulting from acid and nitrogen deposition			Knottingley Power Project Cumulative air quality impacts resulting from acid and nitrogen deposition			Southmoor Energy Centre Cumulative air quality impacts resulting from acid and nitrogen deposition		
	C	O	D	C	O	D	C	O	D	C	O	D
Northern Atlantic wet heaths with <i>Erica tetralix</i>	x	x	x	x	xa	x	x	xa	x	x	xa	x
European dry heaths	x	x	x	x	xa	x	x	xa	x	x	xa	x
European site features	Likely In-Combination Effects of NSIP											
	Advanced Thermal Treatment Plant Cumulative air quality impacts resulting from acid and nitrogen deposition.			Thorpe Marsh CCGT Cumulative air quality impacts resulting from acid and nitrogen deposition.			Chapel Haddlesey Hydroelectric Scheme No pathways identified					

	C	O	D	C	O	D	C	O	D			
Northern Atlantic wet heaths with <i>Erica tetralix</i>	x	xa	x	x	xa	x	x	x	x			
European dry heaths	x	xa	x	x	xa	x	x	x	x			
Evidence supporting in-combination screening conclusions												
a. Air Quality Assessment has concluded that there will be no cumulative effects on Natura 2000 sites. See ES Volume I, Chapter 20 (Cumulative & Combined Effects), paragraphs 20.5.10 and 20.5.29.												

Stage 1 Matrix H: North York Moors SAC

MATRIX H1: Likely Effects Screening												
Name of European site: North York Moors SAC												
Distance to NSIP: Approximately 60 km												
European site features	Likely Effects of NSIP											
	NOx deposition from Proposed Power Plant stacks resulting in changes to critical levels and potential effects on vegetation assemblage.			Nutrient nitrogen deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage			Acid deposition from Proposed Power Plant stacks resulting in changes to critical loads and potential effects on vegetation assemblage					
	C	O	D	C	O	D	C	O	D			
Northern Atlantic wet heaths with <i>Erica tetralix</i>	x	x a	x	x	x b	x	x	x c	x			
European dry heaths	x	x a	x	x	x b	x	x	x c	x			
Evidence supporting conclusions												
<p>a. Change assumed imperceptible; <1% of critical level and not significant because SAC is >15km from Proposed Development and was therefore not scoped into the air quality assessment. See ES Volume I, Chapter 8 (Air Quality), paragraphs 8.6.27 – 8.6.31.</p> <p>b. Change assumed imperceptible; <1% of critical load and not significant because SAC is >15km from Proposed Development and was therefore not scoped into the air quality assessment. See ES Volume I, Chapter 8 (Air Quality), paragraphs 8.6.27 – 8.6.31.</p> <p>c. Change assumed imperceptible; <1% of critical load and not significant because SAC is >15km from Proposed Development and was therefore not scoped into the air quality assessment. See ES Volume I, Chapter 8 (Air Quality), paragraphs 8.6.27 – 8.6.31.</p>												

MATRIX H2: Likely In-combination Effects Screening												
Name of European site: North York Moors SAC												
Distance to NSIP: Approximately 60 km												
European site features	Likely In-Combination Effects of NSIP											
	Eggborough Coal-Fired Power Station Decommissioning and Demolition No pathways identified			Ferrybridge Multifuel 2 Cumulative air quality impacts resulting from acid and nitrogen deposition			Knottingley Power Project Cumulative air quality impacts resulting from acid and nitrogen deposition			Southmoor Energy Centre Cumulative air quality impacts resulting from acid and nitrogen deposition		
	C	O	D	C	O	D	C	O	D	C	O	D
Northern Atlantic wet heaths with <i>Erica tetralix</i>	x	x	x	x	xa	x	x	xa	x	x	xa	x
European dry heaths	x	x	x	x	xa	x	x	xa	x	x	xa	x
European site features	Likely In-Combination Effects of NSIP											
	Advanced Thermal Treatment Plant Cumulative air quality impacts resulting from acid and nitrogen deposition.			Thorpe Marsh CCGT Cumulative air quality impacts resulting from acid and nitrogen deposition.			Chapel Haddlesey Hydroelectric Scheme No pathways identified					
	C	O	D	C	O	D	C	O	D			
Northern Atlantic wet heaths with	x	xa	x	x	xa	x	x	x	x			

<i>Erica tetralix</i>												
European dry heaths	x	xa	x	x	xa	x	x	x	x			
<p>Evidence supporting in-combination screening conclusions</p> <p>a. Air Quality Assessment has concluded that there will be no cumulative effects on Natura 2000 sites. See ES Volume I, Chapter 20 (Cumulative & Combined Effects), paragraphs 20.5.10 and 20.5.29.</p>												

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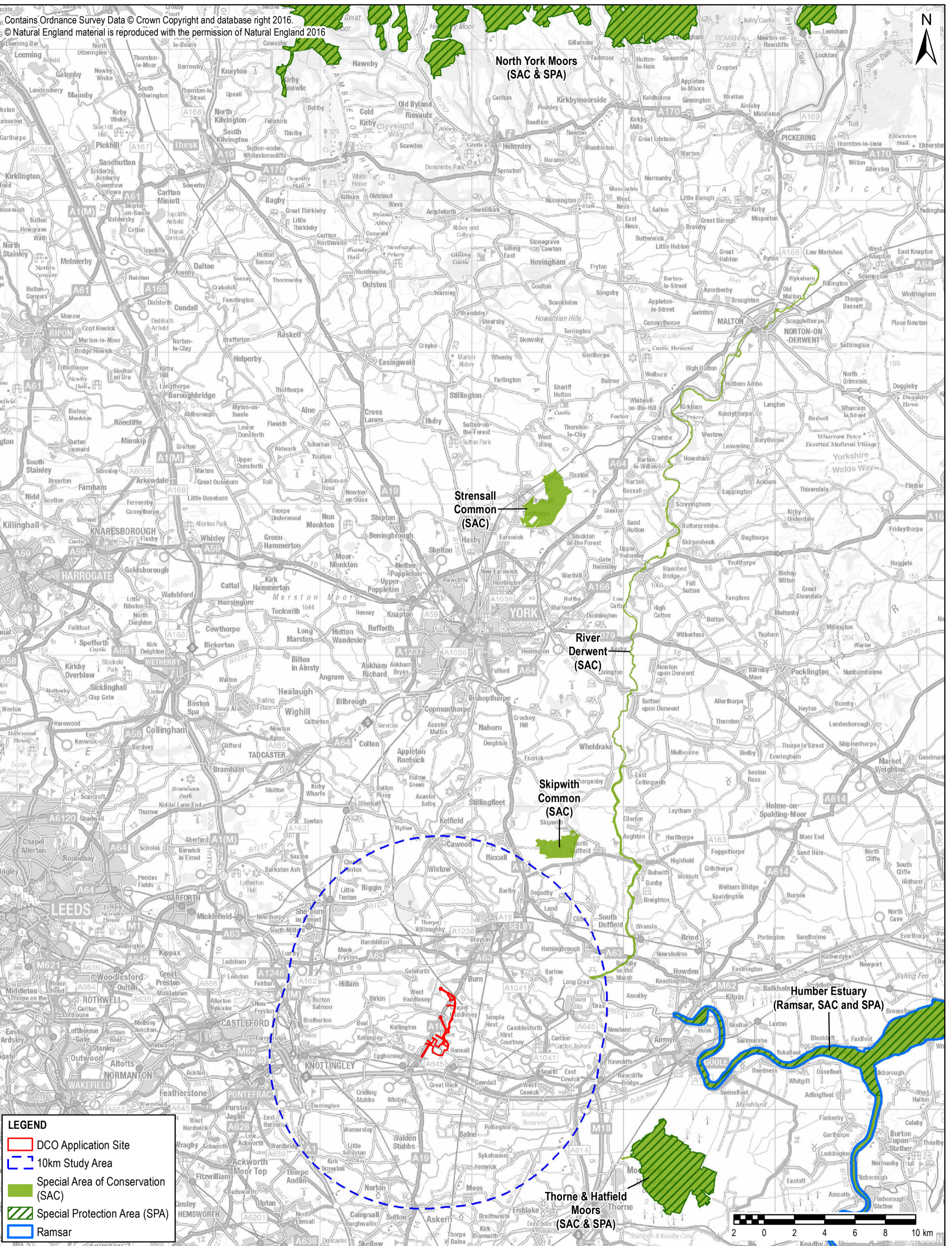
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Figure 10H.1 International Nature Conservation Designations

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Drawing Title INTERNATIONAL NATURE CONSERVATION DESIGNATIONS		Drawn CN	Checked JW	Approved SW	AECOM
		Date 11/05/2017	Scale @ A3 1:225,000	Purpose of Issue Environmental statement	
		Drawing Number FIGURE 10H.1	Rev 01		
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