

# The Keadby 3 Low Carbon Gas Power Station Project

PINS Ref: EN010114

The Keadby 3 Low-Carbon Gas Power Station Order

Land at and in the vicinity of the Keadby Power Station site, Trentside, Keadby, North Lincolnshire

# Preliminary Environmental Information (PEI) Report Volume II - Appendix 1C: Matters Addressed in Scoping Opinion

The Planning Act 2008

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

> Applicant: SSE Generation Limited Date: November 2020



#### **DOCUMENT HISTORY**

Document Ref			
Revision	P1.0		
Author	Rupert Wilson		
Signed		Date	November 2020
Approved By	Susan Evans / Richard Lowe		
Signed		Date	November 2020
Document Owner	AECOM		





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## 1.0 MATTERS ADDRESSED IN SCOPING OPINION

#### 1.1 Overview

1.1.1 This technical appendix of the Preliminary Environmental Information (PEI) Report summarises the issues raised in the Secretary of State's Scoping Opinion on the Proposed Development (refer to **Appendix 1B** (PEI Report Volume II)) and describes how the views of the Planning Inspectorate and other consultation bodies have been taken into account in the environmental studies and ongoing design of the Proposed Development.

#### Table 1: Matters Addressed from Scoping Opinion in Chapters of PEI Report

Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
Chapter 2: Assessment Methodology	Planning Inspectorate	Decommissioning	The Planning Inspectorate recommends that the PEI Report and ES covers the life span of the Proposed Development, including decommissioning, to enable the decommissioning of the works to be considered in the design and use of materials.	<b>Chapter 2: Assessment Methodology</b> (PEI Report Volume I) outlines that this PEI Report presents the likely significant environmental effects on the environment during construction, operation (including maintenance where required) and decommissioning. Each technical chapter ( <b>Chapters 8 – 18</b> , PEI Report Volume I) have considered decommissioning in their assessment.
		Transboundary Effects	The Planning Inspectorate has observed that the Scoping Report has not indicated whether the Proposed Development is likely to have significant impacts on another European Economic Area (EEA) state. The Planning Inspectorate therefore recommends that the ES should consider the potential for significant transboundary effects.	Transboundary effects will be considered within <b>Chapter 2: Assessment</b> <b>Methodology</b> of the ES. On the basis of information presented in this PEI Report , it significant transboundary effects are not anticipated.





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		Combined Heat and Power	The Planning Inspectorate has commented that should the Combined Heat and Power (CHP) assessment identify opportunities which would lead to the requirement to establish CHP infrastructure, environmental impacts of the construction, operation and decommissioning of the infrastructure should be assessed in the ES.	This has been noted. Should the CHP assessment identify opportunities which would lead to the requirement to establish CHP infrastructure, environmental impacts of the construction, operation and decommissioning of the infrastructure would be undertaken and presented in the ES.
		Coronavirus (COVID- 19) Environmental Information and Data Collection	The Planning Inspectorate understands government enforced measures in response to COVID-19 may have consequences for the Applicant's ability to obtain relevant environmental information but has advised that Applicants should agree their approach to the collection and presentation of information with the relevant consultation bodies.	The approach to the collection and presentation of information has been outlined in the relevant chapters and appendices in the PEI Report (Volumes I and II) including effects on the Applicant's ability to collect baseline data during the Covid-19 pandemic. Where it has been possible to agree the approach with relevant consultation bodies, this has been noted.
Chapter 3: Site Description	Planning Inspectorate	Site levels	The ES should include existing and proposed site levels including access and egress routes and heights of any existing and proposed flood defences.	Chapter 3: The Site and Surrounding Area (PEI Report Volume I) details topography of the existing and Proposed Development Site and surrounding areas. This chapter also outlines the access and egress routes for the Proposed Development Site. Chapter 12: Water Resources and Flood Risk (PEI Report Volume I) details the heights of existing flood defences;





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				additional flood defences are not proposed. <b>Appendix 12</b> A: Flood Risk Assessment (PEI Report Volume II) considers the need for flood resilience mechanisms.
Chapter 4: The Proposed Development		Description of the Proposed Development	The Planning Inspectorate noted the limited description of the Proposed Development provided in the Scoping Report and expects more detail will be presented in the ES, including specifying details of components such as lighting, drainage features, landscaping and environmental mitigation features.	<b>Chapter 4: The Proposed Development</b> (PEI Report Volume I) provides further description of the Proposed Development, including details of lighting, drainage features, landscaping and environmental mitigation features under consideration at PEI stage. Further detail will be presented in the final ES which will support the DCO Application.
	Planning Inspectorate	Technical Processes	The Planning Inspectorate has advised that the ES should include more detail of the technical processes involved and the infrastructure necessary, particularly those pertaining to low-carbon and carbon-capture delivery. In all phases of the development the nature and quantity of materials and natural resources used should be assessed where significant effects are likely to occur.	Chapter 4: The Proposed Development (PEI Report Volume I) contains further detail regarding the technical processes involved in the Proposed Development, and the necessary infrastructure and materials.
		Technology Selection	The Planning Inspectorate has noted uncertainty with regards to many aspects of the Proposed Development and has advised that options should be refined to reduce uncertainty and aid a robust assessment.	Since scoping stage, the concept design has progressed resulting in options being further refined, as far as possible at this stage, to reduce uncertainty as detailed in <b>Chapter 4: The Proposed Development</b>





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			It was specifically noted that clarity should be provided regarding the electrical connection to the substation and options should be refined to remove uncertainty. Where uncertainty persists, the ES should appropriately assess the likely significant effects associated with different permutations or worst-case scenario. The Planning Inspectorate also welcomed the intention to select the preferred low carbon technology prior to the submission of the DCO but advises that hydrogen power should be selected as the preferred technological solution; the ES should elaborate on the concept of a fuel-gas blend and assess the impact associated with it.	(PEI Report Volume I). It is envisaged that options will be further refined in the ES, including in relation to land within the final Order Limits. Where uncertainty remains, a 'worst-case scenario' will be used to assess the likely significant effects.
		Access Routes	The Planning Inspectorate has commented that the ES should detail the proposed access routes for both construction and operational traffic and assess any significant effects associated.	Chapter 4: The Proposed Development (PEI Report Volume I) contains details of proposed access routes for both construction and operational traffic. Further detail regarding access routes is contained within Chapter 10: Traffic and Transport (PEI Report Volume I) and Appendix 10: Transport Assessment (PEI Report Volume II).





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		Hydrogen and CO <sub>2</sub> pipelines	The Planning Inspectorate advises the hydrogen and CO <sub>2</sub> pipelines should be viewed as a consequential impact within the ES and the ES should determine the likely effects of their construction, operation and decommissioning.	As discussed in <b>Chapter 4: The</b> <b>Proposed Development</b> (PEI Report Volume I), the Applicant is progressing concept design work on the preferred low carbon option using post-combustion CCP, having initially considered an alternative low carbon technology pathway using hydrogen firing as reported on in the Environmental Impact Assessment (EIA) Scoping Report ( <b>Appendix 1A</b> , PEI Report Volume II). Further information on the alternatives considered and reasons for selection of the preferred option is presented in <b>Chapter 6: Consideration of</b> <b>Alternatives</b> (PEI Report Volume I)
	Canal & River Trust	Abstraction	Necessary consents would need to be obtained from the Trust for any works that effect the canal or navigation associated with the use of the canal. Works to install the abstraction would require consent of and a licence from the Trust and be designed to safeguard navigational safety. The Trust advises that full details of the design of any abstraction equipment and the method of construction (including cofferdams) be submitted to and approved by the Trust prior to the commencement of works. Provisions for the protection of the Trust in the	As outlined in <b>Chapter 12: Water</b> <b>Resources and Flood Risk</b> (PEI Report Volume I), all necessary consents will be obtained from then the relevant bodies following ongoing consultation. A Schedule of Licences and Other Consents will be prepared to accompany the DCO Application.





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			role of landowner and Navigation Authority should be provided.	
	Althorpe Parish Council	Technology Selection	Althorpe Parish Council has suggested that the technology for 100% hydrogen-firing is only currently available in commercial configuration up to 50Mw in a single unit. They note that Keadby 3 will be 910Mw and have questioned what the hydrogen percentage is intended to be used, if SSE adopt this option. We are concerned about how hydrogen will be delivered and stored in the site prior to use.	Details relating to the technology options have been outlined in <b>Chapter 4: The</b> <b>Proposed Development</b> (PEIR Volume I) and further details will be provided within the ES.
	Althorpe Parish Council	Carbon Capture and Storage	The Parish Council is concerned that there are not currently any Carbon Capture and Storage facilities in this part of Lincolnshire or Humberside to connect to. The Parish Council have expressed concern that Keadby 3 could be up and running before the Carbon Capture Plant can run and export carbon offsite.	As described in the PEI Report, the Applicant would not build or operate the CCGT without the carbon capture plant as the Applicant is fully committed to building a generating station which has a clear route to decarbonisation.
5: Construction	PINS	Construction works and programme	The Planning Inspectorate welcomes the provision of further details relating to construction. This section should include; description of the construction period, site preparation and construction methods, staging and phasing of the Proposed Development, location of construction activities (including a description of works within and adjacent to watercourses), location of any temporary	Details relating to the construction of the Proposed Development, including an indicative construction programme and construction methods, are described within <b>Chapter 5: Construction Programme</b> <b>and Management</b> (PEI Report Volume I).





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			structures or areas required and description of the construction traffic route.	
		Dredging	Where dredging, bed levelling works and/or disposal of material are required, the ES should include details on the proposed methods, timing and duration, volume of material to be dredged/disposed of and the location of the works. The ES should assess potential impacts from dredging on receptors.	Chapter 5: Construction Programme and Management (PEI Report Volume I) confirms the current assumption that no dredging activities would be required.
	ММО	Abstraction	The MMO advises the ES should include details on construction methodology and associated impacts arising from the installation and operation of the cooling water intake for water abstraction and the operation of the outfall pipe for the discharge of treated effluent. The MMO advises further engagement regarding a Marine Licence.	Noted and the Applicant's has provided relevant details on likely construction methods in <b>Chapter 5</b> : Construction Programme and Management (PEI Report Volume I). <b>Chapter 12: Water Resources and Flood</b> <b>Risk</b> (PEI Report Volume I), provides an assessment of impacts and effects related to the cooling water system (CWS) discharge to the River Trent, and abstraction, should the River Water Abstraction Option be selected Engagement is being sought by the Applicant with the MMO to agree the approach to the Marine Licence.
6. Alternatives	PINS	Alternatives	The Planning Inspectorate acknowledges the intention to give consideration towards alternatives and expects to see a discrete section in the ES providing details of the	Chapter 6: Consideration of Alternatives (PEI Report Volume I) outlines alternatives that have been considered during the Proposed





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			reasonable alternatives studied and the reasoning for selection of the chosen option, including comparison of environmental effects. The Inspectorate welcomes the intended use of a Rochdale Envelope and expects the range of options to be narrowed as much as possible with an explanation provided as to which elements have yet to be finalised. The development parameters will need to be clearly defined in the DCO.	Development design and the reasoning for the selection of the chosen option. For aspects of the Proposed Development that have not yet been determined, such as the source of abstraction for cooling water supply, options under consideration have been included and assessed within this PEI Report.
7: Legislative Context and Planning Policy	Planning Inspectorate	Planning Policy	<ul> <li>The Planning Inspectorate noted that the Scoping Report does not acknowledge the following designated NPSs which may also be relevant to the Proposed Development:</li> <li>NPS for Gas Supply Infrastructure and Gas and Oil Pipelines (NPS EN-4); and</li> <li>NPS for Electricity Networks Infrastructure (NPS EN-5).</li> </ul>	Chapter 7: Legislative Context and Planning Policy (PEI Report Volume I) outlines that both NPS for Gas Supply Infrastructure and Gas and Oil Pipelines (NPS EN-4) and NPS for Electricity Networks Infrastructure (NPS EN-5) are considered relevant to the Proposed Development.
8: Air Quality, Dust and Odour	Planning Inspectorate	Decommissioning	The Planning Inspectorate agrees to scoping out a quantitative assessment of decommissioning. The ES should include as much detail as possible when describing decommissioning.	Decommissioning activities are presented in <b>Chapter 4</b> : The Proposed Development (PEI Report Volume I). Effects from decommissioning on air quality are considered comparable to the effects resulting from construction, as detailed in <b>Chapter 8: Air Quality and Appendix</b> <b>8A: Construction Air Quality</b> <b>Assessment</b> (PEI Report Volume I).





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		Operational road traffic emissions	The Inspectorate is content with an assessment of the effects of operational traffic being scoped out of the ES, provided traffic levels are below the relevant screening thresholds.	As discussed within <b>Chapter 8: Air</b> <b>Quality</b> (PEI Report Volume I), no detailed assessment of operational traffic emissions has been undertaken, as the numbers of additional vehicles associated with the operational phase of the Proposed Development are below the DMRB and IAQM screening criteria for requiring such assessment. The assessment will be re-examined at ES stage.
		Air Quality Monitoring	The ES should also include a figure depicting all locations of air quality monitoring stations and agree the data with the relevant statutory consultees.	<b>Chapter 8</b> : Air Quality explains that there are no monitoring stations in the vicinity of the Proposed Development Site and therefore background data has been sourced from Defra background maps. A figure illustrating air quality monitoring areas has therefore not been provided
		Study Area	The ES should justify why a 2km study area has been provided, and this study area should be agreed with the relevant consultation bodies. A figure should be produced to depict the study area, air quality monitoring sites and sensitive receptors considered.	In line with the Environment Agency risk assessment methodology, <b>Chapter 8: Air</b> <b>Quality</b> (PEI Report Volume I) outlines that a 15km study area has been applied for the Proposed Development operational point source emissions in order to assess potential impacts on human health and ecological receptors. 2km is stated as the distance at which impacts for human receptors are considered negligible.





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				<b>Figures 8.1 to 8.3</b> (PEI Report Volume III) show the study areas applied in relation to the air quality assessment.
		Stacks	The number and height of stacks should be stated in the ES. If the number and height has not been finalised by submission, the ES should include an assessment for the reasonable worst-case scenario.	<b>Chapter 4</b> : The Proposed Development provides details of the number and height of stacks and <b>Chapter 8</b> : <b>Air Quality</b> (PEI Report Volume I) and accompanying <b>Appendix 8B</b> : <b>Operational Air Quality</b> provides information on the approach to stack heights assessment,. Reported impacts are based on reasonable worst- case scenarios.
		Pollutants	The ES should clearly state which pollutants have been addressed in the assessment of air quality impacts from construction vehicle movements.	<b>Chapter 8: Air Quality</b> (PEI Report Volume I) describes NO <sub>2</sub> , PM <sub>10</sub> and PM <sub>2.5</sub> as being pollutants that exhaust emissions from road vehicles having the potential to affect concentrations of. These pollutants have therefore been the focus of the assessment of air quality impacts from construction vehicle movements.
		Baseline data	The ES should detail baseline air quality conditions within the area likely to experience impacts from the Proposed Development. The ES should also present residual effects associated with predicted emission levels of all pollutants.	<b>Chapter 8: Air Quality</b> (PEI Report Volume I) details baseline air quality conditions, likely impacts and effects, mitigation measures and residual effects.





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		Methodology	The ES should clearly state the methodology for determining significant effects and the Applicant should make every effort to agree the methodology with the relevant consultation bodies. The Inspectorate also advised consideration of the Institute of Air Quality Management (IAQM) Assessment of dust from demolition and construction 2014 guidance when assessing the impact from dust and particulate matter during construction and decommissioning.	<b>Chapter 8: Air Quality</b> (PEI Report Volume I), outlines the methodology used to determine significant effects. The chapter also outlines the guidance that has been taken into consideration during the assessment, including the Institute of Air Quality Management (IAQM) Assessment of dust from demolition and construction 2014 guidance.
	Doncaster Council	Modelling	The ES should include modelling to show the impact of the Proposed Development on air quality within Thorne, since it is in the 15km study area and currently a matter of concern with the Council, and the surrounding area. This should include all operational and fuelling considerations. Air quality modelling should also be undertaken for proposal generated traffic.	As outlined in <b>Chapter 8: Air Quality</b> , (PEI Report Volume I) modelling has been undertaken to show the impact of the Proposed Development on air quality, including from protected sites and traffic generated by the Proposed Development.
	Althorpe Parish Council	Amine Release	Althorpe Parish Council have expressed concern about the health risk associated with release of amine when the CCP is running. The Council have expressed concern about the effects of pollutants, including nitrogen oxide, carbon monoxide and carbon dioxide,	<b>Chapter 8: Air Quality</b> (PEI Report Volume I) has undertaken an assessment of amine releases from the operation of the Proposed Development. Likely impacts and effects on human health receptors are presented in this chapter.





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			on those living in close proximity to the plant and the surrounding area.	
9: Noise and Vibration	Planning Inspectorate	Operational road traffic noise and vibration effects	The Planning Inspectorate is content for the operational road traffic noise and vibration effects to be scoped out of the ES.	<b>Chapter 9: Noise and Vibration</b> (PEI Report Volume I) considers predicted changes in road traffic noise levels on the local road network during the construction phase only.
		Guidance	The Planning Inspectorate advises that the ES should specify exactly what guidance is being applied to determine the significance of changes in road traffic noise levels.	Section 9.2 of <b>Chapter 9: Noise and</b> <b>Vibration</b> (PEI Report Volume I) specifies guidance followed to determine the significance of changes in road traffic noise levels: Department for Transport / Welsh Office Memorandum 'Calculation of Road Traffic Noise' (1988).
		Ecological receptors	The Planning Inspectorate noted that the Scoping Report only comprises residential receptors and that suitable behavioural response thresholds (by noise types) for relevant species should be agreed.	Key noise sensitive ecological receptors have been identified within <b>Chapter 9:</b> <b>Noise and Vibration</b> (PEI Report Volume I) as salmon, eel, and river and sea lamprey, all of which are migratory species using the Trent.
		Sensitive receptors	The Planning Inspectorate notes the Scoping Report includes the potential noise sensitive receptors to be assessed and suggests that the ES should also identify receptors sensitive to changes in vibration, including the canal and Keadby Lock.	Vibration effects on the canal and Keadby Lock have been considered within <b>Chapter 9: Noise and Vibration</b> (PEI Report Volume I).





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		Underwater noise and vibration	The Planning Inspectorate notes that should the construction programme include noise and vibration generating activities that have the potential to impact fish species, the ES should assess underwater noise and vibration impacts on underwater receptors where significant effects are likely to occur.	An assessment of underwater noise and vibration disturbance effects has been presented within <b>Chapter 11:</b> <b>Biodiversity and Nature Conservation</b> .
	Canal & River Trust	Vibration	Supporting information should be provided to highlight that works in site will not result in adverse vibrations that could damage structures, e.g. the canal wash wall. The Trust advise the scope of the vibration assessment be expanded to ensure appropriate information is submitted to indicate that no adverse vibration effects or damage will occur to the canal or Keadby Lock.	An assessment of vibration effects associated with the construction and operational phases of the Proposed Development has been undertaken within <b>Chapter 9: Noise and Vibration</b> (PEI Report Volume I).
10: Traffic and Transport	Planning Inspectorate	Operational road traffic	The Planning Inspectorate is content for operational road traffic to be scoped out of the ES.	Road traffic during the construction phase has been assessed in <b>Chapter 10: Traffic</b> <b>and Transport</b> (PEI Report Volume I).
		Study Area	The Planning Inspectorate notes that the ES should provide a clear justification as to why the study area chosen is sufficient to address the extent of the likely impacts resulting from the Proposed Development. Effort should be made to agree the study areas with relevant consultation bodies and evidenced in the ES.	Chapter 10: Traffic and Transport (PEI Report Volume I) outlines that a study area for assessment has been defined by reference to the Guidelines for the Environmental Assessment of Road Traffic, 1993. This study area for assessment has been agreed with Highways England and North Lincolnshire Council through consultation.





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		Impacts on mariners	The Planning Inspectorate notes that the proposed qualitative desk-based assessment of navigational risk to assess the risks to mariners from in-river working should also assess obstruction impacts resulting from the proposed offloading area to the access point to the Stainforth and Keadby canal and Keadby lock. The ES should include a summary of the salient points of this navigational assessment and any significant effects to or from marine transport.	A desk-based assessment of the navigation risk on mariners from in-river working will be undertaken and summarised in the ES.
		Construction access	The Planning Inspectorate advises the ES assess impacts from the routing of construction vehicles via the access route from the A18. The ES should also address issues relating to the capacity of the bridge crossings at Stainforth and Keadby canal and the Scunthorpe to Doncaster passenger rail line where significant effects are likely to occur.	Impacts from the routeing of construction vehicles via the A18 and bridge load bearing capacities are considered in <b>Appendix 10A: Transport Assessment</b> (PEI Report Volume II).
	North Lincolnshire Council	Construction Access	NLC advise that construction traffic should access the site via the A18, not the B1392.	The A18 is proposed as the main access route to the Proposed Development Site during both construction and operation. Details are provided within <b>Chapter 4</b> : The Proposed Development, <b>Chapter 5</b> : Construction Programme and Management (PEI Report Volume I) and





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				Appendix 10A: Transport Assessment (PEI Report Volume II).
	Canal & River Trust	Use of canal for freight	The Trust advise the proximity of the proposed offloading area to the access point for the Stainforth & Keadby canal at Keadby Lock could result in an obstruction to the entrance point of the canal should any oversized vessels be used. Details should be provided as to the anticipated size and loading times of vessels.	Appendix 10A: Transport Assessment (PEI Report Volume II) outlines that it is anticipated that the delivery of AIL to the Proposed Development Site will use the same routes as those currently being used for the delivery of AIL associated with the construction of Keadby 2 Power Station. The largest abnormal loads will be received at the Port of Immingham and barged down the River Trent to Keadby Railway Wharf. Further details will be sought regarding the anticipated size and loading times of vessels within the ES which will accompany the DCO Application.
	Network Rail	Operational railway safety	Network Rail advise that the ES should consider the impact the Proposed Development may have on operational safety, in particular consideration should be given towards haulage/HGV routes into the site for both construction and operation, where such routes involve the use of railway assets.	<b>Chapter 10: Traffic and Transport</b> (PEI Report Volume I) provides an assessment of highway safety during the construction phase of the Proposed Development. An access road off the A18 crosses the Scunthorpe to Doncaster passenger railway line on the North Pilfrey Bridge. However, there are not any haulage/HGV routes that involve the use of railway assets.





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	Highways England	Abnormal Indivisible Loads	Highways England have a road improvement scheme in Hull at A63 Castle Street which will progress for approximately five years involving full closure of the A63 for a long period for deep excavations. If construction of Keadby 3 involves transporting AILs through the Port of Hull, then this issue may need to be factored in. Humber Bridge can only accept loads up to about 350 tonnes.	Agreement on the approach to AIL has been gained through a Transport Scoping Report (refer to <b>Appendix 10</b> : Transport Assessment). Further consideration will be given to the AIL route during detailed design once final details of the size, number and origin of loads are known.
		Assessment of construction impacts	Highways England consider the approach is reasonable. However, with regards to the temporary construction impact at the SRN, some further detail of the peak period impacts would be beneficial to aid your review with regard the safe and efficient operation of the SRN.	Agreement on the approach to AIL has been gained through a Transport Scoping Report (refer to <b>Appendix 10</b> : Transport Assessment). Further detail of the peak periods has been included in <b>Chapter 10</b> : <b>Traffic and Transport</b> (PEI Report Volume I) and <b>Appendix 10A: Transport</b> (PEI Report Volume II).
			Information should be afforded in relation to the impacts of the construction stage during the peak periods to ensure that appropriate consideration has been given to the (albeit temporary) impacts in these peak periods. Such information will allow Highways England to confirm the intended approach and to assist in steering specific requirements of the Construction Worker Travel Plan and Construction Traffic Management Plan.	The effects of construction traffic on the local road network as a result of the Proposed Development are included within the assessment contained within <b>Chapter 10:</b> Traffic and Transport (PEI Report Volume I).





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	Doncaster Metropolitan Borough Council	Approach	The approach contained within the Transport Scoping Note is acceptable.	This has been noted.
	CH2M (for Highways England)	Abnormal Indivisible Loads	AECOM will need to consider the AIL routing implications for M180 Junction 2 within the documentation prepared as part of the DCO application to enable Highways England to take a view on the implications at the SRN.	Agreement on the approach to AIL has been gained through a Transport Scoping Report (refer to <b>Appendix 10</b> : Transport Assessment). Detailed consideration will be given to the AIL route during detailed design once final details of the size, number and origin of loads are known.
		Deliveries	CH2M request for the timings of deliveries throughout the week and the shift patterns that the permanent staff are likely to be working on to ensure that a robust assessment of the operational element of the proposed development can be undertaken.	This is noted. Details are provided within the <b>Appendix 10A: Transport</b> <b>Assessment</b> (PEI Report Volume II).
		Trip Distribution and Assignment	The distribution and route assignment appear to be an appropriate distribution given the location of the development and the surrounding area.	This has been noted.
		Automatic Traffic Count	It is stated that three Automatic Traffic Count [ATC] will be included in the final assessment, although these are all on the local road network. No reference is made to the use of count data on the SRN, which leads CH2M to	A review of Highways England's Webtris database ( <u>https://webtris.highwaysengland.co.uk/#</u> ) provides count data on the M180 to the west of Junction 2. Count data extracted for August 2018 shows the average two-





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			the conclusion that the SRN will not be assessed as within the DCO application. As such, justification will be required from AECOM as to why this is the case.	way weekday traffic flow to be 44,883 vehicles. At the peak of construction of the Proposed Development, an additional 598 two-way vehicles per day are expected on the M180 to the west of Junction 2. This represents a very low percentage increase on the M180 (equating to 1.3% of total traffic). This temporary effect of construction traffic would occur during the peak 2 months of a 36 month build programme for the Proposed Development; it is therefore considered that no further assessment of effects on the SRN is necessary and this has now been agreed with Highways England via their advisors CH2M Hill (September 2020).
		DfT Circular 02/2013	The transport documentation prepared as part of the DCO application should be compliant with DfT Circular 02/2013.	A future year assessment scenario of 2031 (ten years after the submission of the application - expected in Q1 2021) will be assessed to take into account the anticipated worst-case peak of construction traffic forecast at the latest start date in the available construction programme, considering a consent with a 7 year duration. The appointed contractor will be required to prepare a Construction Traffic Management Plan (CTMP) and





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				Construction Workers' Travel Plan (CWTP) and this will be secured by a Requirement of the draft DCO. These plans will be in accordance with the Framework CTMP and CWTP to be prepared and submitted with the DCO Application to manage the traffic impact of the Proposed Development. <b>Appendix 10A: Transport</b> <b>Assessment</b> (PEI Report Volume II) is therefore compliant with Circular 02/2013.
		Committed developments	It is considered by CH2M that AECOM should agree a list of committed developments with the local authority, then CH2M would support this.	An initial list of committed developments has been identified during scoping and in further consultation with the local authority and updated for this PEI Report. The list will continue to be reviewed and updated as the application progresses. It is agreed that AECOM will liaise with the local authority on such matters.
11: Biodiversity and Nature Conservation	Planning Inspectorate	Vibration impacts	The ES should assess vibration impacts to ecological receptors where significant effects are likely to occur.	Potential noise and vibration impacts on ecological receptors have been assessed (where relevant) within <b>Chapter 11:</b> <b>Biodiversity and Nature Conservation</b> (PEI Report Volume I) with reference to <b>Chapter 9: Noise and Vibration</b> (PEI Report Volume I).
		Baseline Conditions	The ES should detail how the baseline has been established within an appropriate study area and include a list of sources used and/or	The approach to be taken was set out in the scoping report reviewed and commented on by stakeholders for the





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			the location, extent, data and results of any surveys undertaken to inform the baseline and supported by figures where appropriate. Effort should be made to agree the approach with relevant consultation bodies.	scoping opinion. Further detail to meet the requirements of the Planning Inspectorate is provided in <b>Chapter 11: Biodiversity</b> <b>and Nature Conservation</b> (PEI Report Volume I) and supporting appendices (PEI Report Volume II).
		Study Area	The ES should establish an appropriate study area based on the ZOI, and the assessment should include all potential sensitive receptors within the ZOI and assess all impacts that are likely to cause significant effects.	An appropriate study area has been defined with reference to the likely zone of influence over which the Proposed Development may have potential to result in significant effects, as detailed in <b>Chapter 11: Biodiversity and Nature</b> <b>Conservation</b> (PEI Report Volume I).
		Air quality impacts during construction and decommissioning	The ES should assess air quality impacts on ecology (e.g. nitrogen deposition). The ES should assess these impacts to ecological receptors where significant effects are likely to occur during the construction and decommissioning phases of the Proposed Development.	Potential air quality impacts have been considered and assessed (where relevant) within <b>Chapter 11: Biodiversity and</b> <b>Nature Conservation</b> (PEI Report Volume I) with reference to the findings of <b>Chapter</b> <b>8: Air Quality</b> (PEI Report Volume I).
		Methodology	The Planning Inspectorate notes that spatial extent, probability and frequency should also be considered in determining impacts in the ES. The ES Ecology Chapter should include a methodology determining how significance is defined with reference to applicable guidance used to inform the assessment. Effort should	The scoping report identified that assessment would be made in accordance with current guidance, including Chartered Institute of Ecology and Environmental Management (CIEEM) (2019) methods. This approach was reviewed and commented on by stakeholders for the scoping opinion and the methods used





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			be made to agree the approach with the relevant consultation bodies.	have been outlined in <b>Chapter 11:</b> <b>Biodiversity and Nature Conservation</b> (PEI Report Volume I) and its supporting technical appendices (PEI Report Volume II).
		Piling	Where piling is required, the ES should include details on the method to be used, pile size, number of piles, expected installation duration and timing. The ES should assess potential impacts from piling on receptors.	Potential impacts of piling have been considered in Chapter 11: Biodiversity and Nature Conservation (PEI Report Volume I) based on the details provided within Chapter 5: Construction Programme and Management (PEI Report Volume I) and assessed (where relevant) with the preliminary findings reported within Chapter 9: Noise and Vibration and 12: Water Resources and Flood Risk (PEI Report Volume I).
		Dredging	The ES should assess potential impacts from dredging on receptors.	It is not currently envisaged that dredging will be required. Should the need for dredging be identified, the potential dredging impacts would be reported in the ES.
		Sediment Sampling	Dependent on the timing footprint and nature of the works, further sediment sampling may be required closer to the commencement of the works and this should include for metal samples, Polyaromatic Hydrocarbons (PAHs) and Organochlorides (OCs). Effort should be made to agree an approach to sediment	This is not a matter for the ecological assessment, and instead is addressed in <b>Chapter 12: Water Resources and Flood</b> <b>Risk</b> (PEI Report Volume I).





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			sampling with the MMO and any other relevant consultation bodies.	
		Great Crested Newt Surveys	The Planning Inspectorate is content to scope out great crested newt surveys subject to evidence of the agreed approach with Natural England.	As outlined in <b>Chapter 11: Biodiversity</b> and Nature Conservation (PEI Report Volume I), Natural England was consulted for the scoping opinion and had the opportunity to review the rationale for scoping out great crested newt. No comments in relation to this were made. Appropriate consideration has been given to great crested newt and it has been scoped out with reference to an appropriate evidence base (as identified in <b>Appendix 11C: Preliminary Ecological</b> <b>Appraisal Report</b> (PEI Report Volume II). The requirements of good practice have been met.
		Bat roost surveys	The ES should determine whether the Proposed Development could impact any nearby buildings based on the ZOI and whether these have bat roost potential. The ES should assess impacts to bat roosts where significant effects are likely to occur.	As outlined in <b>Chapter 11: Biodiversity</b> <b>and Nature Conservation</b> (PEI Report Volume I), it has been determined that construction will not affect any existing buildings. Further detail is provided in <b>Appendix 11C: Preliminary Ecological</b> <b>Appraisal Report</b> (PEI Report Volume II).
		Surveys for reptiles, breeding birds, wintering and passage birds and	The Planning Inspectorate notes that the ZOI and works to be carried out are currently unknown and it is unclear whether these species could still be impacted. Therefore, the	Information regarding these species is contained within <b>Chapter 11: Biodiversity</b> <b>and Nature Conservation</b> (PEI Report





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		terrestrial invertebrates	Planning Inspectorate does not agree with scoping out these surveys and advises that the ES should assess impacts to these receptors where significant effects are likely to occur.	Volume I) and its supporting technical appendices (PEI Report Volume II).
		Aquatic surveys and impacts to aquatic environment	The Planning Inspectorate does not agree to scope out these surveys from the ES due to inadequate detail on what construction works are proposed in the aquatic environment. The ES should be informed by suitably detailed and up to date aquatic information to establish a robust and up to date aquatic ecology baseline. The ES should detail surveys conducted and the results. The construction activities associated with the Proposed Development should be included in the ES and any impacts to aquatic receptors where significant effects are likely to occur should be assessed. Effort should be made to agree the approach with relevant consultation bodies.	A suite of aquatic biodiversity surveys has been completed to enable assessment of the Proposed Development. These surveys were scoped after first considering existing data sources and reasonable assumptions on the presence/ absence of relevant aquatic species. Detail is provided in Appendix 11C: Preliminary Ecological Appraisal Report and Appendix 11G: Aquatic Macroinvertebrates and Aquatic Plant Survey Report (PEI Report, Volume II).
	Planning Inspectorate	Ecology, Terrestrial Ecology and Aquatic Ecology	The ES should clearly set out whether terrestrial and aquatic ecology are assessed as one or two aspects and identify which receptors are assessed within each Chapter; cross-referencing should be employed to enable understanding and effort should be	The EclA presented in <b>Chapter 11:</b> <b>Biodiversity and Nature Conservation</b> (PEI Report, Volume I) considers all terrestrial, freshwater and marine ecological features of potential relevance to the Proposed Development as





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			made to agree an approach with relevant consultation bodies.	described in <b>Chapter 4: The Proposed</b> <b>Development</b> (PEI Report, Volume I).
	Environment Agency		Water vole surveys undertaken in June 2019 identified an extensive water vole population in the drainage ditches surrounding the site. The ES should include an understanding of the water vole population and a mitigation strategy to prevent its fragmentation.	Potential impacts on water vole and grass snake have been considered in <b>Appendix</b> <b>11C</b> : PEA (PEI Report Volume II) and in <b>Chapter 11: Biodiversity and Nature</b> <b>Conservation</b> (PEI Report Volume I), and relevant mitigation is identified in the chapter to address these species.
			Grass snakes were also recorded during surveys of June 2019 and the EA expect implementation of avoidance measures to safeguard reptiles that come onto site. These measures will be documented in a reptile method statement.	
	Environment Agency	Fish screening	The EA advises that any water abstraction will require fish screening to protect all species, especially designated species (e.g. lamprey and eel). Discharge water will be within UK TAG guidance.	The Proposed Development will provide appropriate fish screening as described in <b>Chapter 4: The Proposed Development</b> (PEI Report Volume I) This assessment will be provided with the Application, but it should be assumed that all legal and regulatory requirements will be met.
	Environment Agency	Biodiversity Net Gain	The EA advises opportunities to incorporate biodiversity in and around development are encouraged. An assessment of the impact of the development on the terrestrial habitat, hedgerows and river corridor categories should be made in the ES. The DEFRA	Proposals for biodiversity enhancement are currently being considered by the Applicant and will be described in a Landscape and Biodiversity Management and Enhancement Plan (LBMEP) to accompany the DCO Application, taking





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			Biodiversity Metric 2.0 can be used to calculate at least 10% net gain in each of the impacted categories.	into account relevant planning policy, and proposed engagement with relevant stakeholders to determine appropriate site-specific requirements. All relevant ecological features are assessed within <b>Chapter 11: Biodiversity</b> <b>and Nature Conservation</b> (PEI Report Volume I) with reference to the baseline conditions defined in the supporting appendices (PEI Report Volume II).
	ММО	Aquatic surveys	The MMO notes that aquatic surveys must not be scoped out of this assessment at this stage. More specificity on the types of surveys to be undertaken is required. The need for surveys should be reviewed based on whether any rare or designated aquatic species have been found in the vicinity of the project.	A relevant suite of aquatic surveys has been completed. All scoping decisions taken are fully explained in <b>Appendix</b> <b>11C</b> : Preliminary Ecological Appraisal (PEI Report Volume II).
	ММО	Receptors	The MMO expects the ecology chapter included as part of the ES to provide justification for receptors scoped in or out of the review.	Appendix 11C: PEA (PEI Report Volume II) and Chapter 11: Biodiversity and Nature Conservation (PEI Report Volume I) provides justification for receptors scoped in and out of the review.
	ММО	Impacts on aquatic habitats	The MMO recommends details on temporary and permanent impacts to aquatic habitats be included in the ES. The ES should consider effects of thermal uplift and chemical alteration specifically against fish receptors. The MMO also expects the ES to include	This is provided in <b>Chapter 11:</b> <b>Biodiversity and Nature Conservation</b> (PEI Report Volume I) based on the baseline conditions defined in its supporting technical appendices (PEI Report Volume II).





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			species-specific assessments for species of conservation importance.	<b>Chapter 12</b> : Water Resources and Flood Risk presents the preliminary findings and is accompanied by <b>Appendix 12B</b> : Water Framework Directive Screening Assessment (PEI Report Volume II). Assessment of impacts associated with potential thermal uplift and chemical alteration of relevant watercourses is provided within <b>Chapter 12</b> : Water Resources and Flood Risk
	North Lincolnshire Council	Surveys	Supports the proposed scope of the ecological assessment. Notes that appropriate surveys have been or will be carried out. Use of survey data from 2017 is broadly acceptable as long as it remains reliable. If much more time passes, though, some update surveys may be required. Natural England standing advice says, "Ideally surveys should be from the most recent survey season, but this varies by species."	This response has been noted.
	North Lincolnshire Council	Ecological Assessment	<ul> <li>Particular importance within the ecological assessment should be given to:</li> <li>The provision of the information reasonably required for a Habitats Regulations Assessment.</li> <li>Impacts on acid grassland and open mosaic habitats, which have been assessed as being of national importance.</li> </ul>	Chapter 11: Biodiversity and Nature Conservation (PEI Report Volume I) has considered these points. An assessment of the likely significant effects of the Proposed Development on the Humber Estuary SAC and Ramsar site, along with other Natura 2000 sites, will be prepared in the form of a Habitat





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			<ul> <li>Impacts on protected and priority species- a number of which have been recorded on- site.</li> </ul>	Regulations Assessment (HRA) Screening Report to accompany the Application.
			<ul> <li>Avoidance, mitigation and compensation measures required to address identified impacts.</li> </ul>	
			<ul> <li>Biodiversity enhancement measures appropriate to the scale and longevity of the project.</li> </ul>	
12: Water Resources and Flood Risk		Study Area	The ES should clearly set out what study area has been applied to the assessment; this should be based on the ZOI and effort should be made to agree the study area with the relevant consultation bodies.	Appendix 11C: PEA (PEI Volume II) and Chapter 12: Water Resources and Flood Risk (PEI Report Volume I) outlines the study area that has been applied for the assessment, based on the ZOI.
	Planning Inspectorate	Baseline methodology	The Planning Inspectorate notes how the baseline is proposed to be determined and advises effort should be made to agree this approach with the relevant consultation bodies.	Noted. Efforts to agree the approach to baseline data collection are described in the 'Consultation' section of each technical chapter. Consultation will continue with the relevant statutory bodies as the DCO application continues through to the ES.
		Climate change projections and flood defences.	The assessment should apply the most up-to- date UK Climate Change Projections (currently UKCP18) used in The National Planning Policy Guidance (NPPG) on Flood Risk Assessment and Climate Change Allowances to the ES assessment and make effort to agree the approach with the relevant consultation bodies. These projections should	Appendix 12A: Flood Risk Assessment (PEI Report Volume II) outlines the basis of the FRA and the climate projections, data and assumptions used in the assessment. The most up-to-date UK Climate Change Projections (currently UKCP18) have been applied in the assessment.





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			be used to inform the future baseline in the assessment and inform mitigation strategies over the lifetime of the Proposed Development; existing and proposed flood defences should be detailed in the ES.	
		Tidal overtopping/breaching	The ES should include an assessment on breach/overtopping of tidal flood defences where significant effects are likely to occur.	Breach/ overtopping of tidal flood defences is considered in <b>Appendix 12A: Flood</b> <b>Risk Assessment</b> (PEI Report Volume II), and a summary is provided in <b>Chapter 12:</b> <b>Water Resources and Flood Risk</b> (PEI Report Volume I).
		Sensitive receptors	The ES should include a list of sensitive receptors identified within the appropriate study area and locate them on a figure.	A list of receptors identified within the study area are included within <b>Chapter</b> <b>12: Water Resources and Flood Risk</b> (PEI Report Volume I), with the importance of receptors identified within Table 12.6 of the chapter and shown on the associated figures – <b>Figure 12.1 and 12.2</b> (within PEI Report Volume III).
		Drainage Strategy	Effort should be made to agree the drainage strategy approach with the relevant consultation bodies, including the EA.	A Conceptual Drainage Strategy has been included within <b>Appendix 12A:</b> Flood Risk Assessment (PEI Report Volume II). Consultation will be undertaken with the relevant statutory bodies as the DCO application process continues through the to the ES.





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		Methodology and significance criteria	The ES should include a methodology and criteria for assessing significance with explanation of how significance is determined and what is considered a 'significant effect'; this should be informed by appropriate guidance which should be referenced.	Chapter 12: Water Resources and Flood Risk (PEI Report Volume I) outlines the methodology for determining significance of effects, and how significance has been determined using the principles of the guidance and criteria set out in the Design Manual for Roads and Bridges (DMRB) LA 113 Road drainage and the water environment. The applicability of this guidance is described in the chapter.
		Modelling	Any modelling undertaken to inform the ES assessment should be based on relevant guidance and effort should be made to agree the approach with the relevant consultation bodies. Modelling results should be provided with the ES.	No modelling has been undertaken at the PEI stage. However, consultation will be undertaken with the relevant statutory bodies as the DCO application process continues through the to the ES to agree either that this is not required or the scope of modelling.
		CEMP	The CEMP should include locations of dust generating construction works and details of preventative measures to limit the risk of pollution entering waterways; effort should be made to agree these measures with the relevant consultation bodies.	Chapter 12: Water Resources and Flood Risk (PEI Report Volume I) outlines mitigation measures for the construction, operation and decommissioning phases within Section 12.5 and 12.7. The construction measures will be detailed in the Framework CEMP which will accompany the ES.





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		Site levels	The ES should include existing and proposed site levels including access and egress routes and heights of any existing and proposed flood defences.	Appendix 12A: Flood Risk Assessment (PEI Report Volume II) details the levels of existing flood defences. There are not any additional flood defences proposed.
	Anglian Water	Water supply	Reference is made to water abstraction and discharge forming part of the proposals for the main site. It is unclear whether there is a requirement for water services for the site and it is suggested that the Environmental Statement should include reference to water supply.	Chapter 12: Water Resources and Flood Risk (PEI Report Volume I) outlines that water supply for use on site for all activities, with the exception of cooling water, will be supplied by Anglian Water.
	Canal & River Trust	CEMP	The Trust welcome the incorporation of a CEMP and advise that details should include any information on the location of dust generating works, the location of damping down and wheel wash areas and details of protective measures to be incorporated to limit risk of materials being blown into the canal. If proposed biodiversity enhancement measures next to the canal are installed before the compound is brought into use, it could provide a barrier to trap wind blown dust.	A Framework CEMP will be prepared for the ES outlining measures to limit the potential for dispersal and accidental releases of potential contaminants, soil derived dusts and uncontrolled run-off to occur during construction.
	North Lincolnshire Council	Surface water drainage and flood risk	NLC state that the scoping report provided indicates an acceptable level of surface water drainage & flood risk information that is required to be provided as part of DCO.	Further detail relating to surface water drainage and flood risk is provided in <b>Chapter 12: Water Resources and Flood</b> <b>Risk</b> (PEI Report Volume I) and associated appendices.





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	Environment Agency	Drainage strategy	The ES should include a comprehensive drainage strategy, which considers both potential impact on flood risk and also potential hydrological impacts on receiving watercourses, including alterations in flow around discharge outlets and the impacts they may have on local water quality.	A Conceptual Drainage Strategy has been produced, provided in <b>Appendix 12A:</b> <b>Flood Risk Assessment</b> (PEI Report Volume II). The drainage strategy will be developed in consultation with the Environment Agency, the LLFA (North Lincolnshire Council), the IDB (Isle of Axholme and North Nottinghamshire Water Level Management Board) and other statutory agencies.
	Environment Agency	Water Framework Directive	The ES advises that where the proposed preliminary Water Framework Directive (WFD) assessment identifies specific components of the development with the potential to impact WFD status/potential or prevent improvement of local watercourses, such components should be subject to comprehensive assessment with potential mitigation strategies identified.	Appendix 12B: Water Framework Directive Screening Report (PEI Report Volume II) identifies potential impacts upon WFD status and mitigation measures to be considered.
	Environment Agency	Flood Risk	The EA advises that the application needs to be supported by a FRA containing plans to identify rivers, water bodies (including existing culverts/drains on site), other geographical features and the floor plans of the Proposed Development highlighting uses. A topographical survey should be provided, including proposed site levels and the heights of existing flood defences should be included.	Appendix 12A: Flood Risk Assessment (PEI Report Volume II) identifies rivers, water bodies and other geographical features; these are shown on the supporting figures in PEI Report Volume III. Appendix 12A also details the heights of existing flood defences, no additional flood defences are proposed. Appendix 12A assesses flood risk from all sources





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			Flood risk should be assessed from all sources and consider breach, overtopping and climate change. Current and future flood management measures should be considered. It must be demonstrated that flood risk will not increase. If found to increase it may be required to implement floodplain compensation. The development is located on the Isle of Axholme for which a critical flood level of 4.1m AOD has been established, it is advised that all new developments are set with 300 mm freeboard above this level.	and outlines mitigation measures to ensure the risk does not increase.
	Althorpe Parish Council	Flood risk due to abstraction	Althorpe Parish Council has expressed concern that abstraction of water could cause levels of water to be artificially high to allow abstraction and therefore make flood management on the Isle of Axholme more difficult. The Council is concerned about the effects on wildlife and water quality from abstraction water being returned to watercourses.	Chapter 12: Water Resources and Flood Risk and (PEI Report Volume I), along with Appendix 12A: Flood Risk Assessment and Appendix 12B: WFD Screening Report (PEI Report Volume II) provide details on water abstraction and potential impacts on flood risk and water quality.
13: Geology, Hydrogeology and Land Contamination	Planning Inspectorate	Study area	The Planning Inspectorate considers that given the potential for surviving peat deposits and waterlogged sediments, at this stage of the Application it is unwise to set advance limits on study areas. Instead, the study areas in the ES should be based on the results of	As outlined in <b>Chapter 13: Geology</b> <b>Hydrogeology and Land Contamination</b> (PEI Report Volume I), a study area that extends 250m from the boundary of the Proposed Development Site is adopted. This is extended for hydrogeology to 1km





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			detailed geotechnical assessments and specialist advice from consultation bodies such as Natural England and Historic England.	from the boundary of the Proposed Development Site. This is appropriate to assess the local geological and hydrogeological setting and any influence that potential land contamination might have on the Proposed Development or local receptors.
		Geology and hydrogeology	Due to potential deforming, desiccating and aerobic effects of any development, the Planning Inspectorate considers that the ES should characterise hydrogeological sediments in line with relevant guidance, using appropriate sources and data from surveys and modelling. Specific attention should be given to commissioning geophysical and geotechnical surveys, with groundwater monitoring via boreholes at different times of year, and at different locations across the site. Tidal influences on the River Trent and groundwater levels should be considered, along with the complex network of drainage feature in the area. The design of the proposed foundations and construction programme should be informed by specialist advice.	Chapter 13: Geology, Hydrogeology and Land Contamination (PEI Report Volume I) outlines guidance used in assessment, along with sources and data. Ground investigation will be undertaken before construction to inform the development of the preliminary and detailed design. Depending on the information gathered through this ground investigation, monitoring of groundwater and surface water may be undertaken.
		Land contamination baseline	As part of the baseline, the ES should detail the mitigation measures currently employed on site by the existing operations and clarify if/how they interact with and influence the	Chapter 13: Geology, Hydrogeology and Land Contamination (PEI Report Volume I) outlines proposed mitigation measures. Both Keadby 1 and Keadby 2




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			findings in the assessment. The ES should also include the results of further commissioned assessments to ensure that baseline data are appropriately described and quantified.	Power Station fall under the Environmental Permitting Regulations (EPR) 2016 and existing mitigation measures currently employed on site for Keadby 1 and those proposed for Keadby 2 accord with BAT for the purposes of EPR 2016.
		Phase 2 site investigation	A full description of the assessment methodology for a site investigation should be included within the ES. Again, specialist advice should be sought, and reference made to appropriate literature.	An initial site investigation is proposed, as described in Chapter 13: Geology, Hydrogeology and Land Contamination (PEI Report Volume I) and Appendix 13A: Phase 1 Desk Based Assessment (PEI Report Volume II). Relevant literature and desk based assessment to inform the ground investigation is cited.
		Additional assessment	The Planning Inspectorate considers that a programme of intrusive investigations should take place before the submission of the ES, in order that the results might better inform baseline data, the assessment of significance and the production of more detailed mitigation measures.	Chapter 13: Geology, Hydrogeology and Land Contamination (PEI Report Volume I) outlines the initial investigation proposed. Further investigations will be undertaken before construction to inform the Proposed Development's detailed design.
		Figures	The ES should include detailed supporting figures of appropriate size and scale to present the results of the detailed hydrogeological survey and modelling. 3-D modelling of the receiving geological and hydrogeological environment is also encouraged to better understand the	Supporting figures and Envirocheck Reports are included as Annexes of <b>Appendix 13A: Phase 1 Desk Based</b> <b>Assessment</b> (PEI Report Volume II).





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			underlying deposits within the Proposed Development area and to inform design.	
		Soil classification	The ES should explain with reference to Agricultural Land Classifications, the nature and quantity of the soils that will be affected by the Proposed Development. If the soil is classified as Best and Most Versatile (BMV) BMV, then appropriate remediation and mitigation measures should be described within the ES.	<b>Chapter 3:</b> The Site and It's Surroundings and <b>Chapter 5:</b> Construction Programme and Management (PEI Report Volume II) outline the soil classification of the site, including the Agricultural Land Classification and appropriate mitigation measures have been proposed which will be controlled by the CEMP.
	Environment Agency	Surrounding landfill sites	The EA supports the approach to undertake a Phase I Desk Study, followed by a Phase II Intrusive Investigation as required but advises that the historical landfills present around and within the perimeter of the application boundary should be considered thoroughly, especially in areas where new buildings and their foundations are proposed to be built on the former landfills.	Landfill sites present around and within the perimeter of the application boundary have been considered, and details are contained within <b>Chapter 13: Geology</b> , <b>Hydrogeology and Land Contamination</b> (PEI Report Volume I).
	MMO	Study area	The MMO notes the difference in study area extent between hydrogeology and soil chemical quality and advises that the study area should only cover the zone of worst-case impacts and justification should be provided.	Chapter 13: Geology, Hydrogeology and Land Contamination (PEI Report Volume I) outlines a study area that extends 250m from the boundary of the Proposed Development Site has been adopted. This is extended for hydrogeology to 1km from the boundary of the Proposed Development Site. This is appropriate to assess the local geological





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				and hydrogeological setting and any influence that potential land contamination might have on the Proposed Development or local receptors.
14: Landscape and Visual Amenity	Planning Inspectorate	Methodology	The most up-to-date guidelines should be followed and referenced throughout the ES. The ES should be supported with suitable visual representations in line with the approach set out in the Landscape Institute Technical Guidance Note 06/19. In this instance, the Planning Inspectorate considers that Category A Type 4 visualisations may be appropriate (Landscape Institute Technical Guidance Note 06/19: 13).	The guidelines followed and referenced throughout the PEI Report have been outlined in section 14.2: Legislation, Planning Policy and Guidance of <b>Chapter</b> <b>14: Landscape and Visual Amenity</b> (PEI Report Volume I). Summer photography has been undertaken at the representative viewpoints. <b>Figures 14.6 – 14.18</b> (PEI Report Volume III) present the Proposed Development from a range of viewpoints to illustrate the potential visibility of the indicative layout of the Proposed Development. Type 4 verified summer photography has been undertaken from a number of selected viewpoints. Wirelines using verified photography are presented as Figures 14.19 – 14.24 in PEI Report Volume III. Verified winter photography from these viewpoints will also be obtained and included in the final ES.





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		Visual representations	The Planning Inspectorate considers that four Visual Representations of the Proposed Development may not be enough to provide full representation and notes the degree of uncertainty over the final design and layout. The Planning Inspectorate recommends that effort is made to agree relevant details of the design of the structures as soon as possible so that this aids the assessment and iterative design process.	Chapter 14: Landscape and Visual Amenity (PEI Report Volume I) outlines that six Type 4 verified photomontages using verified photography from viewpoints will be included in the final ES. The ES will also reflect details of the design and structures once agreed.
		Night-time visual assessment	Given the scale of the Proposed Development, a night-time lighting impact assessment should also be prepared for the ES, for both the construction and operational phases. This must also consider possible effects on the Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB) and its proposed extension, along with the Humber Estuary Ramsar site, the Thorne Moors Special Area of Conservation (SAC) and the Thorne and Hatfield Moors Special Protection Area (SPA). This assessment needs to be cross-referenced with potential night-time impacts on ecological receptors.	An initial assessment of the potential impacts of night-time light pollution has been considered within <b>Chapter 14:</b> <b>Landscape and Visual Amenity</b> (PEI Report Volume I). The Lighting Strategy will be prepared and the approach to necessary lighting of the Proposed Development will be assessed as part of the ES to accompany the DCO application.
		Landscaping and biodiversity management strategy	The Landscape and Visual Amenity assessment in the ES should explain how the North Lincolnshire Green Infrastructure Network (2019), the proposed northern	The Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB) extension area has been included within the study area and effects on this





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			extension to the Lincolnshire Wolds AONB, and other relevant local policies have been considered.	assessed within <b>Chapter 14: Landscape</b> <b>and Visual Amenity</b> (PEI Report Volume I).
	North Lincolnshire Council	Guidance	Landscape and visual impacts need to be considered in terms of the adopted Landscape Assessment and Guidelines and the Countryside Design Summary. NLC also recommend the use of the Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA3, 2013), produced by the Landscape Institute and the Institute of Environmental Management & Assessment. Core Strategy Spatial Objective 10, policies CS5 and CS16 and Saved Local Plan Policies LC7 and RD2 should also be considered.	Landscape and visual impacts have been considered in terms of the adopted Landscape Assessment and Guidelines and the Countryside Design Summary. The policy context for the assessment, which includes all relevant landscape policies, has been included in Section 14.2 of <b>Chapter 14: Landscape and Visual</b> <b>Amenity</b> (PEI Report Volume I).
		Althorpe Parish Council	The Parish Council has expressed concern over the height of the proposed stack in comparison to surrounding structures.	<b>Chapter 4:</b> The Proposed Development sets out the maximum parameters for the Proposed Development, including stack height, on which the assessments in this PEI Report are based. <b>Chapter 14:</b> <b>Landscape and Visual Amenity</b> (PEI Report Volume I) includes a Zone of Theoretical Visibility (ZTV) using this maximum proposed stack height in order to identify potential effects and proposed mitigation.





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15: Cultural Heritage	Planning Inspectorate	Waterlogged and alluvial and peat deposits	The ES must specifically assess possible effects on waterlogged deposits, following appropriate guidelines (e.g. Historic England 2016 – Preserving Archaeological Remains. Appendix 3 – Water Environment Assessment Techniques; Historic England 2020 – Deposit Modelling and Archaeology: Guidance for Mapping Buried Deposits). Geophysical and detailed geotechnical deposit modelling surveys should therefore be commissioned for this.	A programme of archeological field evaluation will be conducted during the period of the EIA and be reported on in full in the ES, as described in <b>Chapter 15</b> : Cultural Heritage (PEI Report Volume I).
			Keadby Lock	Possible physical impacts to Keadby lock and its waterway environs, either through vibration, dust, pollution or accident must also be assessed. Mitigation through design or protective measures should be identified and developed in consultation with relevant consultation bodies e.g. the Canal and River Trust and included in the ES.
		Study area and receptors	The Inspectorate notes that in Figure 3B in Appendix 1, none of the assets are numbered or are cross-referenced to data tables and non-designated assets are not shown. The ES will need to detail all the receptors considered within the study area and locate them on one or more Figures in relation to the Proposed Development.	Figure 15A.1a and Figure15A.1b (within Appendix 15A: Cultural Heritage Desk Based Assessment (PEI Report Volume II)) provide maps of designated and non- designated heritage assets within the study area. This is also reported within Appendix 15A: Cultural Heritage Desk





Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
				Based Assessment (PEI Report Volume II).
		Desk-based heritage assessment	The National Monuments Record (NMR) should also be consulted for the ES, along with a specialist study of available historic aerial photographs and lidar data.	Where available these resources were studied and used to inform the technical baseline reported within <b>Appendix 15A:</b> <b>Cultural Heritage Desk Based</b> <b>Assessment</b> (PEI Report Volume II). Due to the ongoing Covid-19 pandemic, it has not been possible to visit the North Lincolnshire Historic Environment Record in person, nor has it been possible to visit local archives centres to gather historic and archaeological information pertaining to the Proposed Development Site and its surrounding landscape. Such records will be consulted if access can be obtained prior to submission of the ES.
		Heritage-specific viewpoints	The Planning Inspectorate welcomes the uses of a ZTV but considers that separate heritage- specific viewpoints should be included within the heritage assessment chapter rather than being subsumed within Landscape and Visual Amenity section. In particular, there should be a structured assessment of the visual (fixed point and kinetic) impacts from the Proposed Development on Keadby Lock and associated waterways within the ZTV.	A collaborative approach to identifying viewpoint locations that are suitable for LVIA and heritage purposes has been undertaken. Whilst the viewpoints are presented in <b>Chapter 14: Landscape and</b> <b>Visual Assessment</b> (PEI Report Volume I), they are referred to within <b>Chapter 15:</b> <b>Cultural Heritage</b> (PEI Report Volume I) where they are useful for visualising the Proposed Development within the setting of heritage assets, including Keadby Lock.





Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
		Literature review	The criteria to establish significance in the ES should make specific reference to relevant published and unpublished literature resources such as; Lincolnshire Historic Landscape Characterisation (HLC) Project (2011), the Isle of Axholme HLC (1997) and The Archaeology of the East Midlands: An Archaeological Resource Assessment and Research Agenda (2006).	Reference to these published and unpublished resources are included in technical baseline reported within <b>Appendix 15A: Cultural Heritage Desk</b> <b>Based Assessment</b> (PEI Report Volume II).
		Archaeology and heritage baseline	The Applicant should ensure that the assessment is based on a robust baseline position. The significance of remains should be carefully characterised ensuring that the buried archaeological historic baseline is identified within an appropriate study area using relevant guidance and appropriate source information. Aerial photographic and lidar analyses should be undertaken, along with a programme of walkover, geophysical and geotechnical (deposit modelling) surveys. Effort should be made to agree the approach with relevant consultation bodies. The results and assessment of significance should be clearly presented within the ES along with a description of any uncertainties or assumptions applied.	The NLCH Environment Officer will be consulted in the development of the programme of field evaluation. WSI will be produced, to be agreed by the NLCH Environment Officer, and the results and assessment of significance will be presented in the ES.





Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
		Assessment	The Scoping Report notes that once all potential heritage receptors have been identified they will be assigned a 'value'. The origin and rationale of such an approach, the matrixes used, and which organisation devised them should be acknowledged and referenced in the ES. The ES should also describe where expert judgement has been applied to enable an assessment beyond that which is achieved solely by the use of systematic matrixes or scoring systems. Expert judgement should be provided in the form of nontechnical narrative within the Historic Environment chapter.	The methodology for assessing heritage value, magnitude of impact and significance of effects is outlined in <b>Chapter 15: Cultural Heritage</b> (PEI Report Volume I), which also stipulates that professional judgement will be used alongside these matrices. Where professional judgement has been applied to alter the predicted outcome, this is clearly articulated in the relevant assessment text.
		Archaeological receptors in river and riverbank areas and fluvial archaeological baseline	Based on results of walkover and geophysical surveys the ES should identify and assess any potential impacts on historic receptors (where significant effects are likely to occur) within the River Trent, the Stainforth and Keadby Canal, Three Rivers and drainage channels; as well as riverbank areas.	The ES will identify and assess any the risk of potential impacts on historic receptors within watercourses and along their bank
	North Lincolnshire Council	Study Area	NLC state that their records show that the proposed development of Keadby III has potential for direct and indirect affects on designated and non-designated heritage assets and their settings. NLC advise an extended study area of 10km is required for non-designated heritage assets of national	This viewpoint is provided as Viewpoint 13 in <b>Chapter 14:</b> Landscape and Visual Amenity Assessment (PEI Report Volume I)) and is illustrated on <b>Figure 14.5</b> and <b>14.18</b> . Together with <b>Figure 14-24</b> (PEI Report Volume III), which provides a wireline of the Proposed Development





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Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
			importance and that a shared visualisation viewpoint for the Cultural Heritage assessment and LVIA should be taken from the high point on Belton Open Field at the junction of the public rights of way at SE780070.	from this viewpoint, these have been used in the assessment of impact of the Proposed Scheme upon the Isle of Axholme Area of Special Historic Landscape Character in the PEI Report.
	North Lincolnshire Council	Methodology	In order to produce appropriate information for the EIA, the scope of the cultural heritage assessment will need to comprise an assessment based on preliminary desk based synthetic work and the results of fieldwork including archaeological evaluation (desk based synthesis, field evaluation, assessment of significance and assessment of impact). Mitigation measures should also be detailed in the ES, including provision of a Written Scheme of Investigation.	The desk-based assessment presented as <b>Appendix 15A: Cultural Heritage Desk</b> <b>Based Assessment</b> (PEI Report Volume II) includes the baseline review and proposals for a staged programme of intrusive archaeological evaluation. This programme shall be subject to discussion as part of the Stage 2 statutory consultation. The assessment of heritage value (significance) and the methodology for assessing the setting of heritage assets is provided in the technical baseline of <b>Appendix 15A: Cultural Heritage Desk</b> <b>Based Assessment</b> (PEI Report Volume II). The assessment of likely impacts and effects is presented in Section 15.6 of <b>Chapter 15: Cultural Heritage</b> (PEI Report Volume I). This assessment will be developed further once archaeological





Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
				investigations have taken place and as the Proposed Development design develops.
	Historic England	Methodology	Historic England notes surprise at the implication that all intrusive site investigation will be post-consent and comments that it does not appear a sound approach to risk management, nor would it allow determination of the application in a robust manner.	A programme of field evaluation is planned as part of the EIA. The NLCH Environment Officer will be consulted in the development of this programme.
16. Socio- economics		Study area	The study area should be described and justified within the ES.	The extent of the study area has clearly been defined and justified in <b>Chapter 16:</b> <b>Socio-economics</b> (PEI Report Volume I).
		Guidance	The ES should include a reference to the formal reference list and guidance documents used to inform the assessment.	<b>Chapter 16: Socio-economics</b> (PEI Report Volume I) details legislation, planning policy and guidance used to inform the assessment, and provides a formal reference list.
	Planning Inspectorate	Inequalities	The ES should consider how the development might impact local inequality, including health inequality.	Consideration has been given as to how the Proposed Development might impact local inequality, including health inequality within <b>Appendix 16A: Population and</b> <b>Health Signposting</b> (PEI Report Volume II).
		Impacts	The ES should assess any likely significant effects associated with the influx of workers during the construction stage (e.g. increased demand on local services such as housing, healthcare, recreational/open space).	<b>Chapter 16: Socio-economics</b> (PEI Report Volume I) assess the likely significant influx of workers during the construction stage, and subsequent reductions during the operational stage.





Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
		Assessment methodology	The Planning Inspectorate expects the figures and calculations used to generate an assessment of employment opportunities to be clearly stated within the ES, together with adequate justification for their use in the methodology section. The ES should clearly describe the methodology used to assess loss of private land in the ES. The ES should clearly state the assessment criteria which the effects are to be assessed against, and clearly state the value of receptors identified.	<b>Chapter 16: Socio-economics</b> (PEI Report Volume I) clearly outlines the figures and calculations used to assess employment opportunities.
		Althorpe Parish Council	The Parish Council has questioned how socio- economic effects of the expansion of the Keadby site and the associated health risks will be mitigated.	Mitigation measures to reduce potential adverse socio-economic effects on local communities are outlined in <b>Chapter 16:</b> <b>Socio-economics</b> (PEI Report Volume I).
17: Climate Change and Sustainability	Planning Inspectorate	Decommissioning	The Planning Inspectorate agrees that the renewal of the scheme would be subject to separate consent and this matter can therefore be scoped out of the assessment. However, a qualitative assessment of the impacts from removal should be included in the ES.	Chapter 17: Climate Change and Sustainability (PEI Report Volume I) addresses the potential impacts of the decommissioning of the Proposed Development on sustainability, focussing on climate change.
		Description of significant effects	The Planning Inspectorate advised that the ES should include a description and assessment (where relevant) of the likely significant effects of the Proposed Development on climate (giving regard to the nature and magnitude of greenhouse gas	Chapter 17: Climate Change and Sustainability (PEI Report Volume I) includes a description and assessment of the potential significant effects of the construction, operation and decommissioning of the Proposed





Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
			emissions) and the vulnerability of the project to climate change. Consideration should also be given to the adaptive capacity, where relevant.	Development on climate, along with a greenhouse gas emission impact assessment.
		In-combination Climate Change Impact (ICCI) assessment – Extreme weather events; sea level rise; and precipitation change leading to flash flooding	The Planning Inspectorate considers the results of this climate change assessment should also be presented in the climate change chapter (rather than being addressed in the FRA), signposting to the relevant information in the FRA.	The in-combination effects of key sustainability themes, including flood risk, have been included within <b>Chapter 17:</b> <b>Climate Change and Sustainability</b> (PEI Report Volume I).
		ICCI assessment – temperature change; precipitation change (including low precipitation and drought conditions.	The Planning Inspectorate does not agree that these matters will be adequately addressed in a Landscape and Biodiversity Strategy and therefore a separate Climate Change Assessment is required.	In-combination effects of key sustainability themes (i.e. greenhouse gas emissions, flood risk, ecology, air quality, transport and waste) have been considered within <b>Chapter 17: Climate Change and</b> <b>Sustainability</b> (PEI Report Volume I).
		ICCI assessment – wind; and Climate Change resilience assessment - wind	The Planning Inspectorate is content to scope out the impacts of wind on receptors in the surrounding environment and on the resilience of the Proposed Development provided it is evidenced that they <i>"are likely to be no worse relative to baseline conditions"</i> .	The impacts of wind on the receptors in the surrounding environment and on the resilience of the Proposed Development are likely to be no worse relative to baseline conditions.





Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
		Baseline - Future climate conditions	The ES should include detailed reference to UK Climate Change Projections (UKCP18) – the most up-to-date assessment of climate change used in National Planning Policy Guidance (NPPG) on Flood Risk Assessment and Climate Change Allowances, along with associated data, and agree the approach adopted in the ES with the relevant consultation bodies.	The assessment of Climate Change Resilience contained within <b>Chapter 17:</b> <b>Climate Change and Sustainability</b> (PEI Report Volume I) identifies potential climate change impacts using UK Climate Change Projections 2018 (UKCP18).
		GHG lifecycle impact assessment	The Planning Inspectorate considers that such detailed information with respect to the differences between the two main fuel options (natural gas vs hydrogen firing) should be provided in the assessment to enable a comparative impact assessment.	Section 6.6-GHG Impact Assessment within <b>Chapter 17: Climate Change and</b> <b>Sustainability</b> (PEI Report Volume I) details on emissions associated with the different phases and operational scenarios of the Proposed Development. Since the Scoping Report submission, hydrogen fuel is no longer being considered within this application.
		Methodology	The ES and/or accompanying appendices should describe the methodology applied to the assessment and how significant effects will be evaluated. Effort should be made to agree the methodology with the relevant consultation bodies.	Section 6.3 within <b>Chapter 17: Climate</b> <b>Change and Sustainability</b> (PEI Report Volume I) particularly sub-section Classification and Significance of Effects describes the methodology for the GHG, ICCI and CCR assessments including how significant effects will be identified.
		Guidance	Where relevant, the ES should take into account the following guidance: - IEMA (2017) Environmental Impact	Section 6.2 of <b>Chapter 17: Climate</b> <b>Change and Sustainability</b> (PEI Report Volume I describes how guidance such as





Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
			Assessment Guide to: Assessing Greenhouse Gas Emissions and Evaluating their Significance - IEMA (2015), and Environmental Impact Assessment Guide to: Climate Change Resilience and Adaptation.	that published by IEMA have been used within this assessment.
		CCR Review	The CCR acronym is used to refer to the Climate Change Resilience review although it is not defined in the text, and the Glossary defines it as Carbon Capture Ready. The ES will need to ensure there is clarity in the assessment terminology used.	A full abbreviation and acronym list has now been developed, with terms defined in a separate Glossary, Cover and Contents file (PEI Report Volume I).
18: Major Accidents or Disaster Vulnerability	Planning Inspectorate	Risks of major accidents and disasters	The Planning Inspectorate acknowledges the relevance of information obtained through risk assessments pursuant to other regulatory regimes. However, given the novelty of the proposed development, and in the absence of evidence demonstrating clear agreement with relevant consultation bodies, the Planning Inspectorate does not agree to scope out assessment of major accidents.	As a result of the Planning Inspectorate's comments, a Major Accidents and Natural Disasters chapter has been produced in line with available guidance, see <b>Chapter</b> <b>18: Major Accidents and Disasters</b> (PEI Report Volume I).
		Major accidents and disasters	The Planning Inspectorate requested a description and assessment (where relevant) of the likely significant effects resulting from accidents and disasters. Using appropriate guidance, the assessment should focus on significant effects resulting from risks to	Chapter 18: Major Accidents and Disasters (PEI Report Volume I) provides a description of major accidents and disasters, and an assessment of potential significant effects that may occur is provided.





Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
			human health, cultural heritage or the environment.	
		Construction and decommissioning phases	The ES should address significant effects across all phases of the Proposed Development, not just during operation.	Chapter 18: Major Accidents and Disasters (PEI Report Volume I) identifies risks that have the potential to impact upon the construction and operation phases of the Proposed Development and assesses them.
				The decommissioning phase has not specifically been included since the hazards are anticipated to be addressed within the construction and operation phases, and no additional decommissioning hazards have been identified.
		Screening of major accidents and natural disasters	Should the ERA identify risks that have the potential to result in a significant adverse effect on an environmental receptor, it will identify design mitigation to reduce the risk to be as low as reasonably practicable. This information should be presented in the ES.	Chapter 18: Major Accidents and Disasters (PEI Report Volume I) includes standard industry approaches to managing risk, and design mitigation measures that have already been identified, during assessment of potential major accidents and disasters.
		Vulnerability to disasters	No information has been provided to justify scoping out potential hazards. The ES should therefore assess the effects associated with a broad range of civil emergencies such as diseases, major accidents, societal risks and	As a result of the Planning Inspectorate's comments, <b>Chapter 18: Major Accidents</b> <b>and Disasters</b> (PEI Report Volume I) includes an assessment of a broad range of potential hazards, including those detailed within the National Risk Register





Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
			malicious attacks, where significant effects are likely to occur.	of Civil Emergencies. Where potential hazards have been scoped out, justification has been provided.
	Althorpe Parish Council	Spillage of hazardous substances	The Parish Council has expressed concern regarding how amine will be transported to site and what the effect would be from an accident resulting in a spillage, in terms of ground, water, or air pollution and contamination of any aquifers. The Council has also sought clarity regarding transportation of chemicals and substances through villages.	Chapter 18: Major Accidents and Disasters (PEI Report Volume I) has identified potential major accidents and disasters that could arise as a result of the construction, operation and decommissioning of the Proposed Development, including chemical spillages. Reasonable worst-case consequences have been determined and mitigation measures identified to reduce risks to ALARP.
19: Cumulative and Combined Effects	Planning Inspectorate	Study area	The Planning Inspectorate notes that no study areas have been defined for the purposes of the assessment. The Planning Inspectorate considers that other existing or approved development beyond this distance could give rise to cumulative effects on the same receptors. The ES must clearly state and justify the study area applied for each aspect. Effort should be made to agree the scope of the cumulative assessment with relevant consultation bodies.	A study area has been applied based on that of the largest environmental assessment topic zone of influence. Excluding the socio-economic assessment study area, the largest study area is 15km (for air quality impacts) which has therefore defined the study area within which the search for other developments has been undertaken to inform the cumulative impact assessment, as outlined in <b>Chapter 19: Cumulative and</b> <b>Combined Effects</b> (PEI Report Volume I). This study area will be reviewed and confirmed within the ES).





Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
		Other National Infrastructure projects	The Planning Inspectorate states that The Little Crow Solar Park NSIP is located approximately 10km to the south-east of the Proposed Development and should be included in the assessment.	Chapter 19: Cumulative and Combined Effects (PEI Report Volume I) has given consideration to Little Crow Solar Park NSIP.
		Combined effects	The Planning Inspectorate states that the Scoping Report does not define the scope of any combined effects and lists just one example. The ES should be clear as to which combinations of effects it is assessing, and clearly justify the approach taken.	The scope of potential combined effects has been defined within <b>Chapter 19:</b> <b>Cumulative and Combined Effects</b> (PEI Report Volume I).
		Methodology	The Planning Inspectorate states that the Scoping Report does not include a methodology for assessing cumulative or combined effects. The Applicant's attention is drawn to the Planning Inspectorate's Advice Note 17: Cumulative Effects Assessment, which sets out the recommended approach to such assessments. Any mitigation and/ or design measures relied upon to exclude likely significant effects should be explained in the ES and appropriately secured.	The approach to the assessment of cumulative effects set out in PINS Advice Note Seventeen (PINS, 2019a) has been adopted, as outlined in <b>Chapter 19:</b> <b>Cumulative and Combined Effects</b> (PEI Report Volume I). Consultation will be undertaken with North Lincolnshire Council and where significant effects are considered likely; any emerging developments will be included in the final cumulative effects assessment. Any mitigation and/ or design measures
				Any mitigation and/ or design measures relied upon to exclude likely significant effects will be explained in the ES and appropriately secured.





Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
	MMO	Impacts on fish	The MMO notes that the ES should consider whether any existing operational activities (e.g. abstraction of water and discharge of effluent from existing sites) within the study area could result in cumulative or in- combination impacts to fish.	The existing operational activities are included within the baseline of relevant chapters. This PEI Report considers potential effects that may arise due to the Proposed Development taking into account the existing baseline and where relevant, future baseline (e.g. operation of Keadby 2 Power Station) and identifies appropriate mitigation measures, where necessary.
	North Lincolnshire Council Althorpe Parish Council	Running multiple power stations	North Lincolnshire Council and Althorpe Parish Council have advised consideration should be given to running multiple power stations together (having Keadby 1, 2 and 3 supplying capacity at the same time).	Keadby 2 Power Station is under construction and has been noted in the short list of developments. However, construction of this development is due for completion in 2022, prior to construction commencing for the Proposed Development. As such, the inclusion in the short list is at this stage precautionary. It is considered more appropriate that the operational Keadby 2 Power Station including it's built infrastructure (for instance in terms of landscape effects) is considered in future baseline for the Proposed Development and this approach has been taken in this PEI Report. Keadby 1 gas-fired power station has a contract to provide capacity to the grid until September 2022 and will have opportunities to secure further agreements



Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
				in future auctions. Future plans for Keadby 1 Power Station will be confirmed by the Applicant in due course. It is recognised that it is likely that Keadby 1 Power Station would not be in operation concurrently with the Proposed Development, however uncertainty regarding plans for the timing of future closure of Keadby Power Station mean that the removal of Keadby 1 Power Station structures has not been considered in the assessments in this PEI Report. As part of the future baseline it is therefore predicted that structures associated with Keadby 1 Power Station will continue to be present on-site.
	Natural England	Proposals at scoping stage	Natural England note the importance of considering cumulative effects of the proposal, including all supporting infrastructure, with other similar proposals and a thorough assessment of the 'in combination' effects of the proposed development with any existing developments and current applications. A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.	The long list of other developments included within <b>Chapter 19: Cumulative</b> <b>and Combined Effects</b> (PEI Report Volume I) includes all other developments within the designated study area of 15km. This includes other developments at varying stages of the planning application process, including the Scoping stage.





Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
			Natural England advises that the cumulative impact assessment should include other proposals currently at Scoping stage.	





## Table 2: Other Matters and How These Are Presented in the PEI Report

Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response	
21: Materials and Waste	Planning Inspectorate	Impact to waste capacity infrastructure in the region	The Planning Inspectorate states that the ES should include an assessment determining the severity of the impact to the waste capacity infrastructure in the region.	Details regarding proposed measures to manage waste, including storage, removal and disposal, along with consideration of their effectiveness, will be outlined within	
		Landfill/ waste receiving sites	The Planning Inspectorate states that the ES should include the locations of potential landfills/ waste receiving sites and depict them on a figure(s). The anticipated vehicle movements required to deliver the waste to the sites should also be included, and any ancillary effects such as increases in noise and pollutants released should be assessed within the appropriate section of the ES. The available capacity of these sites should be assessed against the volume of anticipated waste generated.	the framework Site Waste Management Plan (SWMP) to be included in the Framework CEMP that will be produced for the ES.	
		Mitigation	Mitigation	The Planning Inspectorate states that the ES should contain sufficient detail as to the effectiveness of proposed measures to manage waste (from the CEMP) and how they have been secured. Where relevant, operational waste mitigation measures should also be detailed.	
		Contaminated waste	The Planning Inspectorate states that ES or SWMP should explain the measures that will be implemented for the storage, removal, and		





Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
			disposal, including the disposal sites, of contaminated waste.	
	Environment Agency	CEMP	The EA welcome the inclusion of information on types and quantities of waste that will be produced, together with a Framework CEMP.	
22: Population and Human HealthPlanning InspectorateHuman health impact assessmentThe Planning Inspector standalone population chapter is not necessa Planning Inspectorate signposting document results of the assess 	The Planning Inspectorate agrees that a standalone population and human health chapter is not necessarily required. The Planning Inspectorate welcomes the proposed signposting document, to summarise the results of the assessment and determine the combined effects on health receptors. Where significant effects to human health receptors are likely a full assessment with relevant methodology applied should be included. The proposed mitigation measures relied upon to support the conclusion to the assessment should be included within the relevant ES chapter.	Appendix 16A: Population and Health Signposting (PEI Report Volume II) provides a summary of key information, assessments, proposed mitigation measures and residual health-related effects described elsewhere in the PEI Report.		
		Electric and Magnetic Fields	The Planning Inspectorate states that the ES should clarify the extent to which EMF has been considered; significant effects from EMF should be assessed in the ES as necessary.	Risks associated with EMF have been considered in <b>Appendix 16A: Population</b> <b>and Health Signposting</b> (PEI Report Volume II). Information on EMF risks was gathered from the Electric and Magnetic Fields and Health website, and International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines





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Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
				were used as the reference for the recommended limits of exposure.
23: Electronic Interference	Planning Inspectorate	Electronic Interference	The Planning Inspectorate states that in the absence of evidence demonstrating clear agreement regarding stack height with relevant consultation bodies and given the potentially novel technologies involved in the Proposed Development; the Planning Inspectorate is not in a position to agree to scope out an assessment of effects on electronic interference. The ES should therefore include an assessment of this aspect where significant effects are likely to occur.	As outlined in <b>Chapter 2: Assessment</b> <b>Methodology</b> (PEI Report Volume) has considered the potential impact from electronic interference and set out why it is proposed to be scoped out of the ES. Relevant telecommunications companies will be formally consulted at Stage 2 consultation and any concerns raised regarding electronic interference will be dealt with in the ES.
		Digital and analogue signals	The Planning Inspectorate states that analogue radio and television signals are still being transmitted and that Ofcom recommends that developers undertake desk- based assessments and reception surveys in order to investigate the possible impacts of a development on analogue signals, mobile phones, other WiFi-based devices and point- to-point microwave transmissions (Ofcom 2009 – Tall Structures and their Impact on Broadcast and Other Wireless Services: 8). The Inspectorate supports this approach.	





Chapter	Consultee	Торіс	Summary of Scoping Opinion Comment	Summary of Response
	National Grid	Safety clearances	National Grid commented on the need for appropriate safety clearances between the Proposed Development, overheard lines and high voltage conductors and pipeline crossings. National Grid request the potential impact of the Proposed Scheme on National Grid's existing assets be included in the ES.	Chapter 18: Major Accidents or Disaster Vulnerability (PEI Report Volume I) outlines that safety distances of high voltage electrical equipment will be taken into account. This includes land within the former Keadby substation.
24: Aviation	Planning Inspectorate	Scoping out rationale	Notwithstanding the uncertainty surrounding the stacks, the Planning Inspectorate is content that having regard to the characteristics of the Proposed Development that significant environmental effects on aviation are unlikely to occur. The Planning Inspectorate agrees that should the need for taller structures arise, the need for an aviation assessment should be reviewed in consultation with relevant consultation bodies including the Civil Aviation Authority (CAA).	Potential effects on aviation has been considered in <b>Chapter 2</b> : EIA Methodology (PEI Report Volume I). Consideration has also been given to the risk of collision between aircraft and tall structures within <b>Chapter 18: Major Accidents or Disaster</b> <b>Vulnerability</b> (PEI Report Volume I).
		Consultation	The Planning Inspectorate encourages consultation with the CAA regarding any requirements for aviation lighting on the stack(s) and should taller stacks or cranes be required then the need for an aviation assessment will be reviewed, and recommends that once designs of the Proposed Development are finalised, details are submitted to the CAA for review and their response incorporated within the ES.	Chapter 18: Major Accidents or Disaster Vulnerability (PEI Report Volume I) outlines that consultation will be undertaken with the CAA regarding the potential need for warning lights to be fitted to tall construction machinery.





## 2.0 STATEMENT OF COMPETENCE

## Table 3: Statement of Competence

Chapter Number	Chapter title	Author qualifications	Reviewer qualifications
Chapter 1	Introduction	BA (Hons) MSc PIEMA	BSc (Hons), MSc, CEnv, IEMA Principal EIA Practitioner
Chapter 2	Assessment Methodology	BA (Hons) MSc PIEMA	BSc (Hons), MSc, CEnv, IEMA Principal EIA Practitioner
Chapter 3	The Site and Surrounding Area	BA (Hons) MSc PIEMA	BSc (Hons), MSc, CEnv, IEMA Principal EIA Practitioner
Chapter 4	The Proposed Development	BA (Hons) MSc PIEMA	BSc (Hons), MSc, CEnv, IEMA Principal EIA Practitioner
Chapter 5	Construction Programme and Management	BA (Hons) MSc PIEMA	BSc (Hons), MSc, CEnv, IEMA Principal EIA Practitioner
Chapter 6	Consideration of Alternatives	BA (Hons) MSc PIEMA	BSc (Hons), MSc, CEnv, IEMA Principal EIA Practitioner
Chapter 7	Legislative Context and Planning Policy	СТРІ	СТРІ
Chapter 8	Air Quality	BSc (Hons), MSc	PhD, MSc
Chapter 9	Noise and Vibration	BSc (Hons), IOA Diploma	BSc (Hons) MSc MIOA
Chapter 10	Traffic and Transportation	BSc (Hons), MSc, MCIHT	BSc (Hons) CMILT
Chapter 11	Biodiversity and Nature Conservation	BSc (Hons), MSc, MPhil, CEnv, MCIEEM	BSc (Hons), PhD, MSc, MPhil, CEnv, MCIEEM





Chapter Number	Chapter title	Author qualifications BSc (Hon) PhD MEI MIEMA CEnv MIMarEST CMarTech MCIWEM C.WEM	Reviewer qualifications           BSc (Hon) MSc CEnv MCIWEM
Chapter 12	Water Resources and Flood Risk		
Chapter 13 Geology, Hydrogeology and Land Contamination		BSc MSc	BSc CSci FGS
Chapter 14 Landscape and Visual Amenity		BA(Hons), BLArch	BSc (Hons) MA CMLI
Chapter 15 Cultural Heritage		BSc (Hons), MA	BSc (Hons), PhD
Chapter 16	Socio-economics	BSc (Hons), MSc	BA (Hons), PG Dip, MIED
Chapter 17 Climate Change and Sustainability		BSc (Hons). Chartership (CEnv)	BA (Hons)
hapter 18 Major Accidents and Disasters		BA (Hons) MSc PIEMA	BSc (Hons), MSc, CEnv, IEMA Principal EIA Practitioner
Chapter 19 Cumulative and Combined Effects		BA (Hons) MSc PIEMA	BSc (Hons), MSc, CEnv, IEMA Principal EIA Practitioner
Chapter 20 Summary of Likely Significant Effects		BA (Hons) MSc PIEMA	BSc (Hons), MSc, CEnv, IEMA Principal EIA Practitioner
Non-Technical Summary Non-Technical Summary		BA (Hons) MSc PIEMA	BSc (Hons), MSc, CEnv, IEMA Principal EIA Practitioner





## 3.0 **REFERENCES**

Planning Inspectorate (2017) *Planning Inspectorate Advice Note Seven* (*Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping*). Version 6 December 2017.

